



# Cable protection conduit and fitting systems



## Conversion from the Pg to the metric system

### General

Conversion from Pg to metric essentially concerns the connecting threads. Flexible conduits (cable protection conduits) are not affected, as the manufacturer prescribes the outside diameter according to EN 50086, parts 2 and 3, whereby the existing standard dimensions can be retained.

### Why convert?

The Pg thread system (Pg stands for the German words for heavy-gauge conduit thread), which has been standardised since 1926, has had its time! Safety standard VDE0619, with the DIN46319 standard for metric dimensions and DIN46320 standard for Pg dimensions cited in it, was withdrawn on 31.12.1999. The new DIN EN 50262 standard entered into force on 01.01.2000. It offers users throughout Europe a uniform connecting thread. The new standard determines the new metric sizes and lays down new safety requirements. No specifications are given for widths across corners, widths across flats etc.

### Consequences of conversion

The Pg thread was permitted for use in the transition period up to 01.03.2001. Since that date, the use of Pg fittings in new developments should be dispensed with, as there will be no declaration of conformity and no CE or VDE marking is possible. Pg threads may still be used for replacement purposes.

### What does that mean for our customers?

As we manufacture screwed fittings and deliver them all over the world, we will continue to offer fittings with Pg, NPT and metric threads for the time being. This means that you, as the customer, will still be able to supply your end customers with Pg systems where necessary.

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### Punching tools

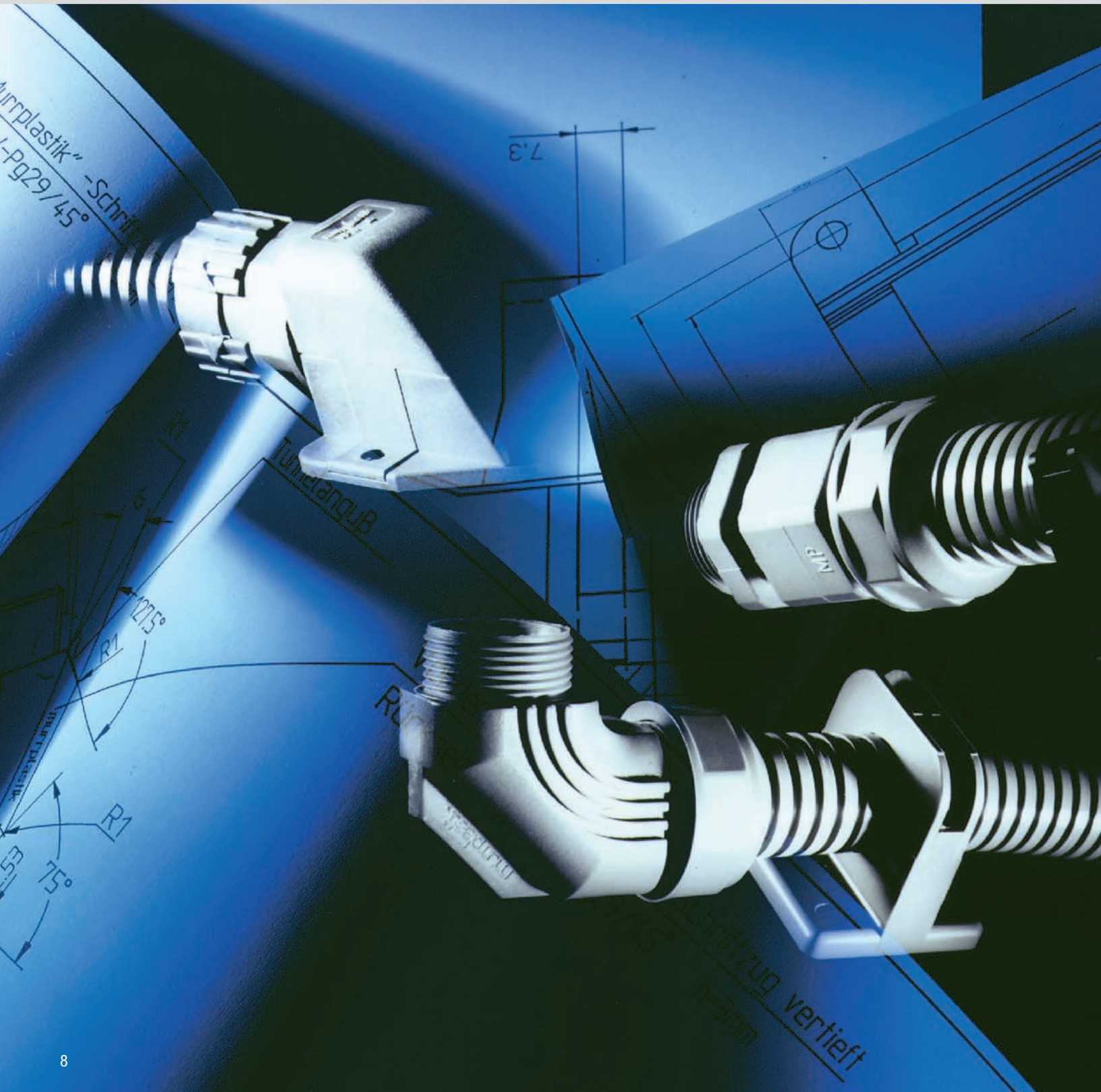
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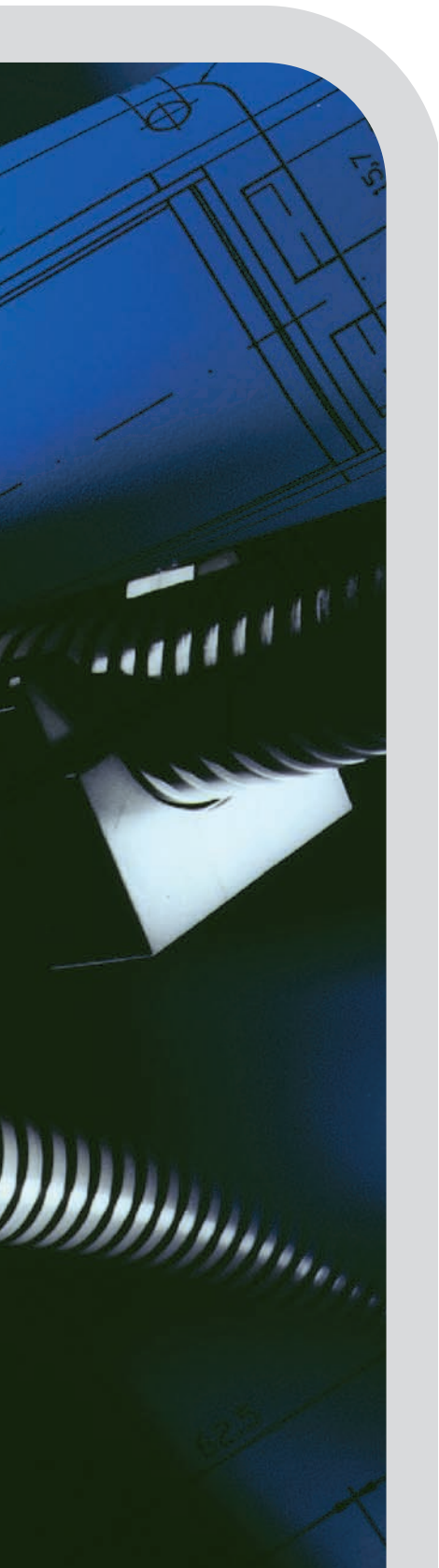
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## Murrflex cable protection conduit and fitting systems







Murrplastik Systemtechnik GmbH has been developing and manufacturing cable protection conduit and fitting systems for over 20 years.

Right from the beginning priority was given to a systematic approach. That is still the case today.

The last few years have seen increasing demands as regards sturdiness, strength, flexibility, ease of assembly, protection class, diversity and high availability placed on conduits and screw fittings. Developing these necessary parts and supplying them to the market has been and continues to be a challenge for Murrplastik.

The latest example is the new m-top family of fittings, which offers a large number of variants with a high protection class and is supplied ready to assemble with integrated seals and pre-assembled cap nut. This permits very rapid assembly and gives the customer the maximum possible process reliability when installing parts.

A further example are the cable protection conduits from Murrplastik Systemtechnik GmbH.

Consistent enhancements have yielded outstanding results through new forms and new material variants that offer our customers enormous advantages.

The EWX family of cable protection conduits have brought considerable benefits thanks to their special form alone. Much sturdier than standard conduits, they are also more flexible even though the material is the same. Even though the conduit is slit, it remains almost fully closed. This enables pre-assembled cables to be installed at any time without any great expense. The EWX conduit is made from tried-and-tested materials.

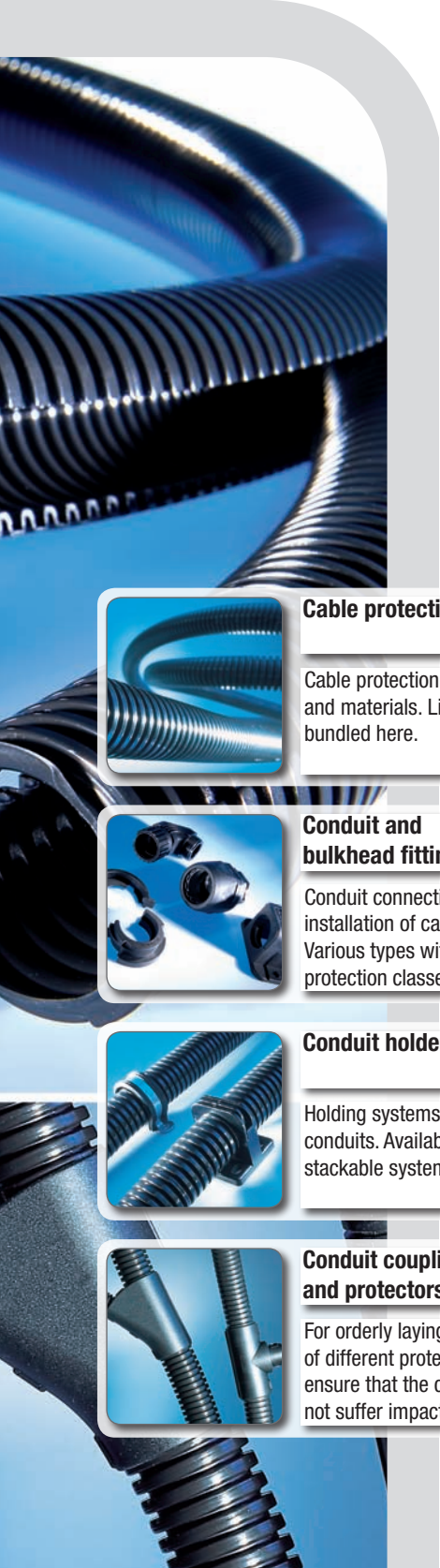
Murrplastik has developed a new material specifically for dynamic applications, e.g. in robotics, that enables the service life for this extreme environment to be lengthened many times over. That reduces maintenance costs.

**Our motto:**  
**The product must offer definite application advantage to the customer**



## Product range





**Cable protection conduit Murrflex**

Cable protection conduits in various variants and materials. Lines can be protected or bundled here.

Page 38



**Conduit and bulkhead fittings**

Conduit connections for safe and quick installation of cable protection conduits. Various types with different protection classes.

Page 84



**Conduit holders**

Holding systems for fitting cable protection conduits. Available as single holders and as a stackable system.

Page 166



**Conduit couplings, conduit distributors and protectors**

For orderly laying/branching of cable looms of different protection classes. The protectors ensure that the cable protection conduits do not suffer impact and abrasion.

Page 180



**Cable fittings**

Fittings made of plastic and metal, also for EMV and EX applications. Multi-inserts increase versatility.

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**Accessories**

Lock nuts, dummy plugs, thread reducers, thread expanders, O-Rings, angle brackets, conduit clamps and much more.

Page 204



**Tools**

Tools for the safe and efficient installation of electrics e.g. cable stripping knives, stripping tongs and cable tie tools.

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**Punching tools**

For the creation of perfect round and corner cut-outs in steel and stainless steel. Special shapes for SUB-MIN-D plug etc. are available.

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## Authorisations cable protection conduit Murrflex

		ATEX	UR	CSA	Railway authorities license			Airways authorities license	
		Guide-lines 94/9/EG	E148958	217843	Germany DIN 5510-2	Great Britain BS 6853:1999	France NF F 16-101	ABD 0031	FAR 25853
Cable protection conduit	EF								
	EW								
	EW-F								
	EWS								
	EWX								
	EW-G								
	EW-HY								
	EW-LS								
	EW-PA			✓	✓				
	EW-PA-LS								
	EW-PA-UL			✓	✓	✓		✓	
	EW-PA-EX	✓							
	EW-PAB			✓	✓	✓		✓	
	EW-PAE								
	EW-PAL								
	EW-PAP								
	EW-PP								
	EW-PRF			✓		✓		✓	✓
	EW-TEF								
	EWT-PA								
	EWT-PP								
	EWX-LS								
	EWX-PA								
	EWX-PA-LS								
	EWX-PA-UL			✓					
	EWX-PAE								
EWX-PAE-LS									
GF									

## Authorisations conduit connection / conduit holder

		ATEX	UR	CSA	Railway authorities licenses			Airways authorities license	
		Guide-lines 94/9/EG	E148958	217843	Germany DIN 5510-2	Great Britain BS 6853:1999	France NF F 16-101	ABD 0031	FAR 25853
Conduit fitting	m-top	CVG	✓	✓	✓	✓	✓		
		CVW 45°	✓	✓	✓	✓	✓		
		CVW 90°	✓	✓	✓	✓	✓	✓	
		DVW 45°	✓	✓	✓	✓	✓	✓	
		DVW 90°	✓	✓	✓	✓	✓	✓	
		IVG	✓	✓	✓	✓	✓	✓	
		VG	✓	✓	✓	✓	✓	✓	
		VW 45°	✓	✓	✓	✓	✓	✓	
		VW 90°	✓	✓	✓	✓	✓	✓	
	m-tec	CKW				✓	✓		
		CSKV		✓		✓	✓		
		ECSKV		✓		✓	✓		
		EH		✓		✓	✓		
		KW		✓		✓	✓		
		MCKW				✓	✓		
		MCSKV				✓	✓		
		MECSKV				✓	✓		
	m-fix	KSV		✓		✓	✓		
		MSV		✓		✓	✓		
		WSV		✓		✓	✓		
Special	AT								
	EH-EMV								
Flange connection	Bulkhead fitting	KFW	✓		✓	✓	✓		
		KFW/D	✓		✓	✓			
		KFW/X			✓	✓			
	m-jumbo	SA-Jumbo							
		KFW-Jumbo							
Conduit coupling Conduit distributor Protector	SVG								
	SVY								
	YPA-F								
	YTPE-F								
	VT								
	PR/SV								
Conduit holder	HS				✓	✓		✓	
	UH		✓		✓	✓	✓	✓	
	UHG				✓	✓			
	UHF		✓		✓	✓	✓	✓	
	USH		✓						
	SS								
	SSG								
	BL		✓		✓	✓		✓	
Cable fittings	EF/B		✓		✓	✓			
	WKK		✓	✓					
	WKK-EX	✓	✓	✓					
	WKM		✓	✓					
	MWKM		✓	✓					
	WKM/EMV		✓	✓					
KV-ME									



## General information

### **Materials**

The use and combination of a wide variety of materials, e.g. plastics of all kinds, elastomers or metals, means that Murrplastik's end products can be used in an infinite number of ways.

### **Forms**

Different forms, e.g. of cable protection conduits, also bring with them changes in properties. The standard corrugation of type EW cable protection conduits, for instance, offers excellent properties with regard to flexibility, crush resistance and flexural fatigue strength.

The high corrugation of type EWX cable protection conduits offers further improvements in certain properties. Crush resistance in particular is greatly enhanced. Flexibility is also significantly improved.

### **Crush resistance**

Crush resistance refers to the mechanical resistance of cable protection conduits. The value relates to the given dimension of a cable protection conduit.

### **Fire behaviour**

The use of self-extinguishing materials and material variants enables applicability of plastics in critical areas. The products or the raw material are normally certified and classified according to UL 94 or DIN 5510. See also "FIRE CLASSIFICATIONS" in the APPENDIX.

### **Approvals**

Our products boast a large number of approvals and certifications, e.g. VDE, UL/UR, CSA, DB, SNCF, BS,... Note the specifications in the catalogue and product data sheets.

### **Chemical properties**

Reactions with chemical substances differ according to the individual plastics and elastomers. For more information, see "CHEMICAL RESISTANCES" in the APPENDIX.

A large database with more than 1800 chemical substances can be accessed on the internet at [www.murrplastik.de](http://www.murrplastik.de).

### **Temperatures specifications**

The temperature ranges quoted for the individual products must be noted in application. "SHORT PERIODS" refers to a total duration of up to 500 hours. Thereafter, the properties of the plastics may change.

### **IP protection class**

The IP protection class indicates the tightness of products against solids and water. The values are also related to static applications. With dynamic applications, the protection class may change. For more information, see "PROTECTION CLASSES" in the APPENDIX.

### **Static/dynamic applications**

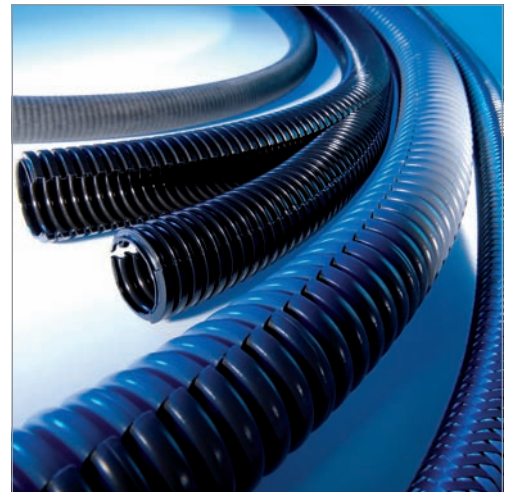
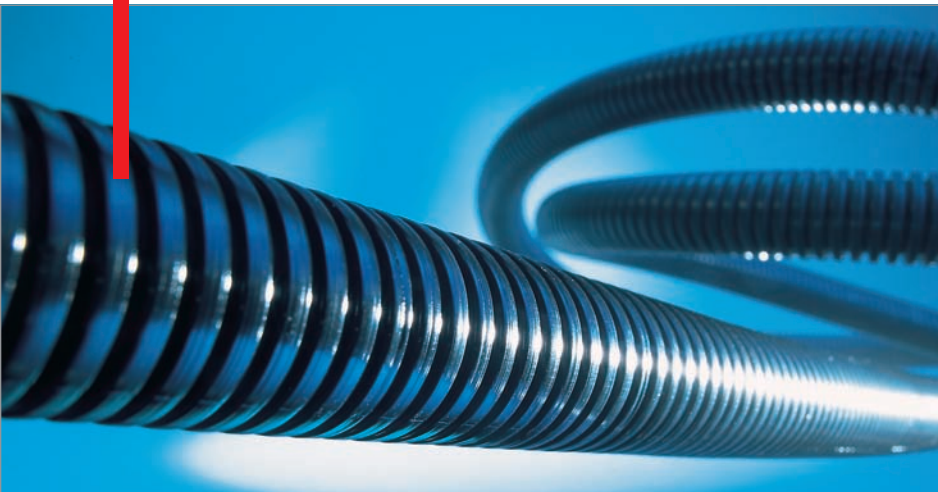
*Static applications are:*

cables that are laid permanently and are not therefore exposed to persistent movement. Examples include permanently routed motor cables.

*Dynamic applications are:*

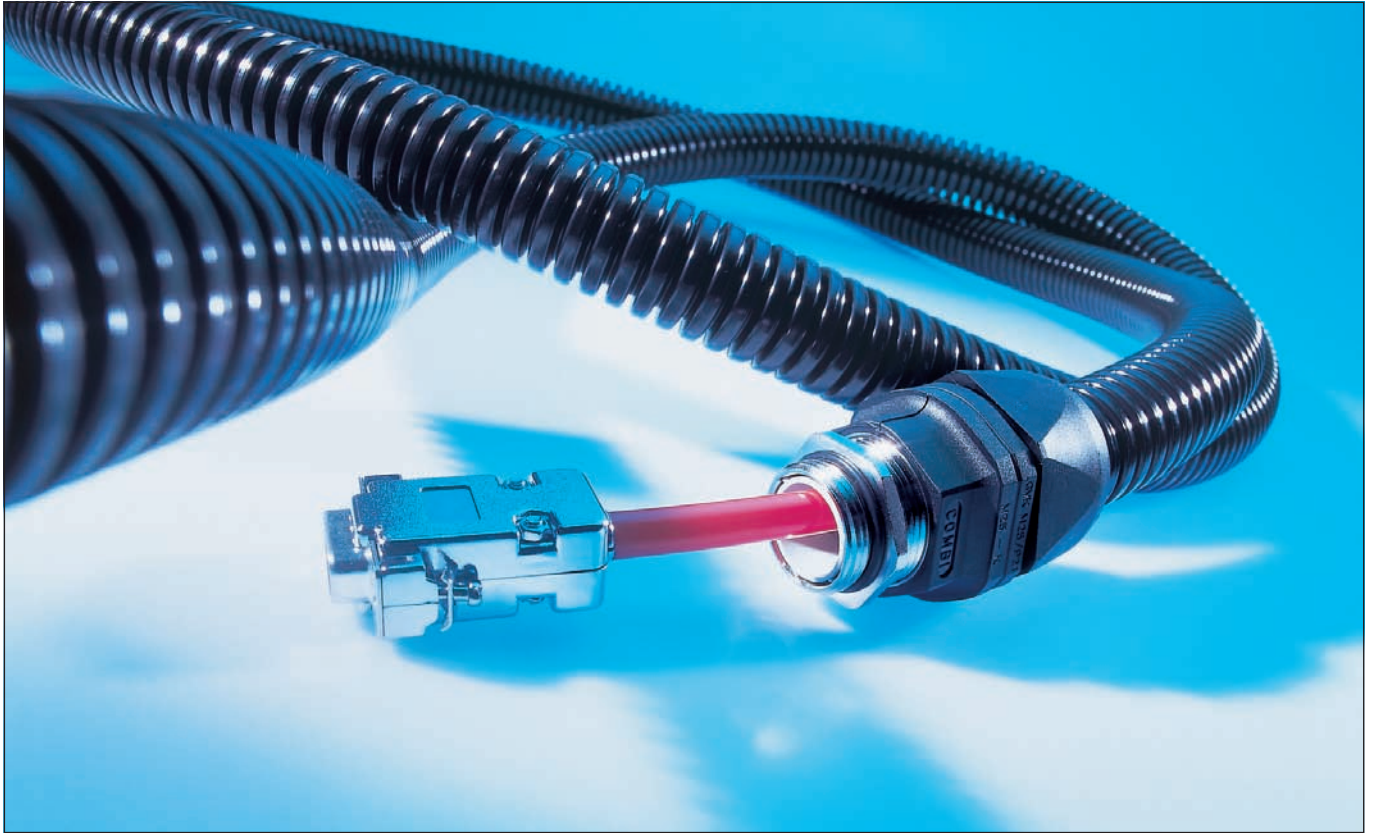
cables that are exposed to persistent movement. Examples include robot applications or controlled axes as well as applications producing a high frequency of flexural stresses for cables and cable protection conduits.

## Cable protection conduit Murrflex





## Advantages



## Protecting and bundling cables

Cable protection conduits can be used to protect cables against dirt and moisture. They also offer mechanical protection and are suitable for bundling cables.

A large range of cable protection conduits, from those laid statically to those subject to extreme dynamic stresses, covers almost all requirements.

A large number of our conduits are certified and approved, e.g. to DIN5510, UL, CSA, NF F 16-101...



- ✓ Wide range of possible uses
- ✓ Many approvals/certificates
- ✓ Variety of profiles
- ✓ High quality



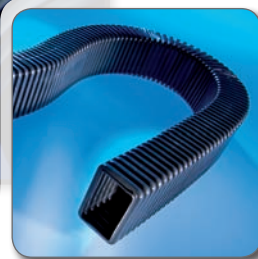
## Murrflex product range



### Standard cable protection conduits Murrflex

Round cable protection conduits for plant construction, mechanical engineering, control cabinet construction, vehicle construction and railway engineering.

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### Special cable protection conduits Murrflex

Specially shaped cable protection conduits with particular properties, suited for special areas of application.

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### One-piece cable protection conduits Murrflex

Slitted cable protection conduits in a range of versions and materials. Lines can be protected or bundled later.

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### Multi-piece cable protection conduit Murrflex Split-Flex

Two-piece cable protection conduits in a range of versions and materials. Ideal for repairing existing systems.

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## Recommendations for use

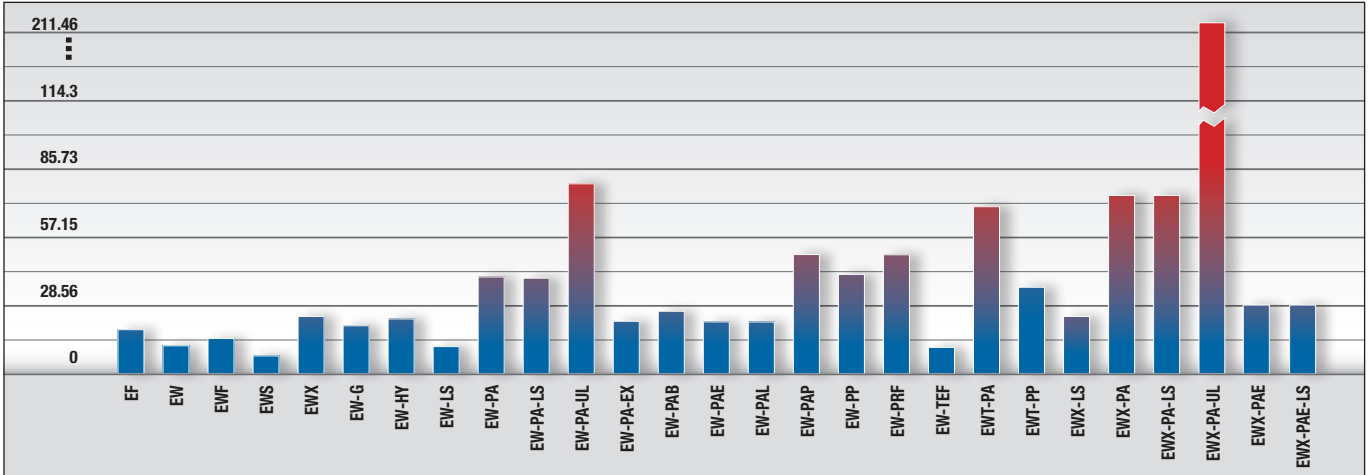
	EF	EW	EW-F	EWS	EWX	EW-G	EW-HY	EW-LS	EW-PA	EW-PA-LS	EW-PA-UL	EW-PA-EX	EW-PAB	EW-PAE	EW-PAL	EW-PAP	EW-PP	EW-PRF	EW-TEF	EW-T-PA	EW-T-PP	EWX-LS	EWX-PA	EWX-PA-LS	EWX-PA-UJL	EWX-PAE	EWX-PAE-LS	GF
Bundling cables		✓	✓	✓	✓			✓														✓						✓
Light mechanical protection	✓	✓	✓	✓		✓		✓											✓									
Medium mechanical protection					✓		✓					✓	✓	✓	✓							✓				✓	✓	
High mechanical protection										✓	✓					✓	✓	✓			✓	✓						
Very high mechanical protection											✓												✓	✓				
Extremely high mechanical protection																										✓		
Persistent movements / dynamic applications (robotically controlled axes)	✓						✓							✓			✓	✓								✓	✓	
Protection against hot solids (e.g. chippings)																✓												
ATEX Guideline 94/9/EG												✓																
UL-listed conduits File No.: E148958									✓		✓		✓						✓							✓		
CSA-listed conduits File No.: 217843									✓		✓		✓															
Approved by German railways DIN 5510-2											✓		✓							✓								
Approved by French railways NF F 16-101											✓		✓							✓								
Airways approval ABD 0031																				✓								
Airways approval FAR 25853																				✓								
Very good chemical resistance	✓					✓	✓									✓			✓			✓						
Hygiene applications						✓																						
For pre-assembled cables and retrofitting of cables								✓		✓											✓	✓	✓		✓		✓	
Extreme temperature range																				✓								

## Material data

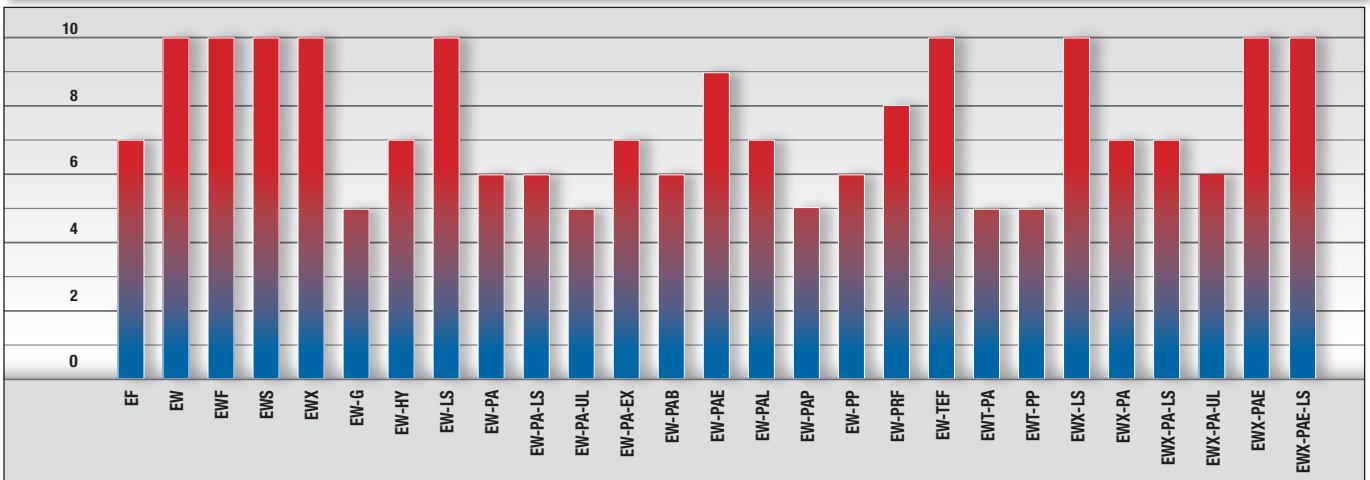
	Material	Temperature area [°F]			Fire specifications UL94	UL 224, type B	Self-extinguishing	UL File number E148958	Fire classification DIN 5510 S4	FMVSS Type A [ $<2.95$ in./min] type B [ $<3.94$ in./min]	CSA 217843	Crush resistance / lb./inch EW-M25/P21 / EWX-M25/P21	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	PWIS-free	RoHS Compliant
		Min.	Max.	Short periods																
EF	Thermoplastic elastomer	-58	320	356	HB						>17.15	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW	Polyethylene	-40	194	248	HB				B		>11.43	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWf	Polyethylene	-40	194	248	V2		✓				>14.29	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWS	Polyethylene	-40	194	248	HB						>5.72	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX	Polyethylene	-40	194	248	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-G	Polypropylene, EPDM	-40	248	302	HB				A		>20.00		✓	✓	✓	✓	✓	✓	✓	✓
EW-HY	Thermoplastic elastomer	-58	320	356	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-LS	Polyethylene	-40	194	248	HB				B		>11.43	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA	Polyamide PA6	-40	284	320	HB			✓	B	✓	>40.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-LS	Polyamide PA6	-40	284	320	HB				B		>40.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-UL	Polyamide PA6	-40	284	320	V0		✓	✓	✓	A	✓	>74.30	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-EX	polyamide PA12	-40	230	302	HB				B		>20.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAB	Polyamide PA6	-40	284	320	V0		✓	✓	✓	B	✓	>25.72	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAE	polyamide PA12	-40	248	302	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAL	Polyamide PA6	-40	284	320	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAP	Polyamide PA6	-40	284	320	HB				B		>45.72	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PP	Polypropylene	-40	266	302	V2		✓		A		>40.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PRF	polyamide PA12	-58	221	302	V0		✓	✓	✓	B	>45.72		✓	✓	✓	✓	✓	✓	✓	✓
EW-TEF	Fluoroplastic	-328	500		V0		✓		A		>11.43	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PA	Polyamide PA6	-40	284	320	HB						>68.58	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PP	Polypropylene	-40	266	302	V2		✓				>34.29		✓	✓	✓	✓	✓	✓	✓	✓
EWX-LS	Polyethylene	-40	194	248	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA	Polyamide PA6	-40	284	320	HB				B		>74.30	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-LS	Polyamide PA6	-40	284	320	HB				B		>74.30	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-UL	Polyamide PA6	-40	284	320	V0		✓	✓			>217.17	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE	polyamide PA12	-40	248	302	HB				B		>28.56	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE-LS	polyamide PA12	-40	248	302	HB				B		>28.56	✓	✓	✓	✓	✓	✓	✓	✓	✓
GF	Polyamide PA6	-40	302	347		✓	✓		B			✓	✓	✓	✓	✓	✓	✓	✓	✓



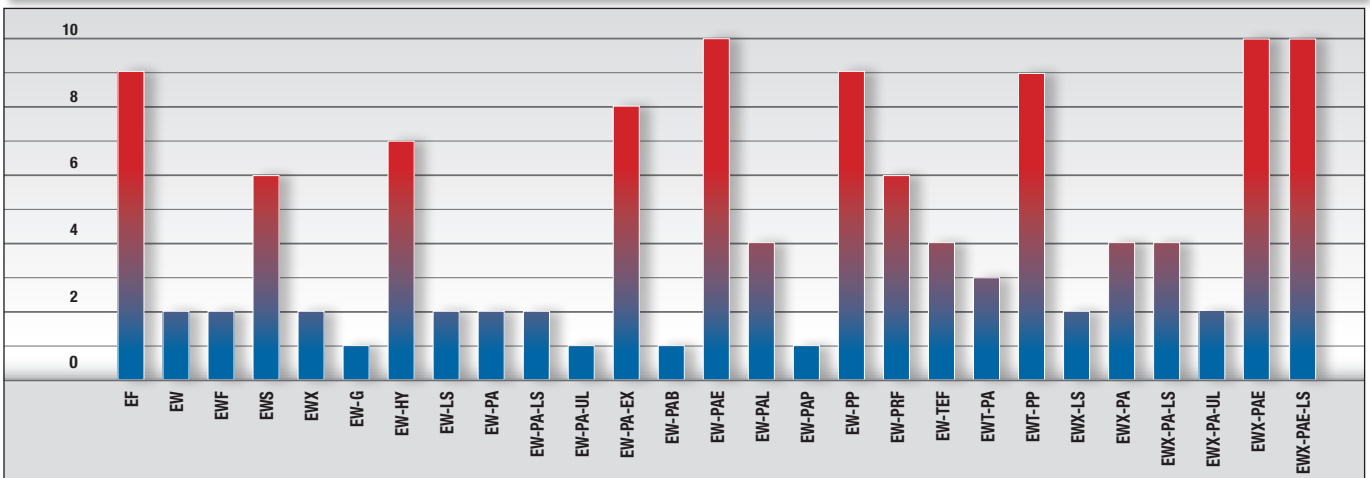
## Selection diagrams



Crush resistance [lb./inch]

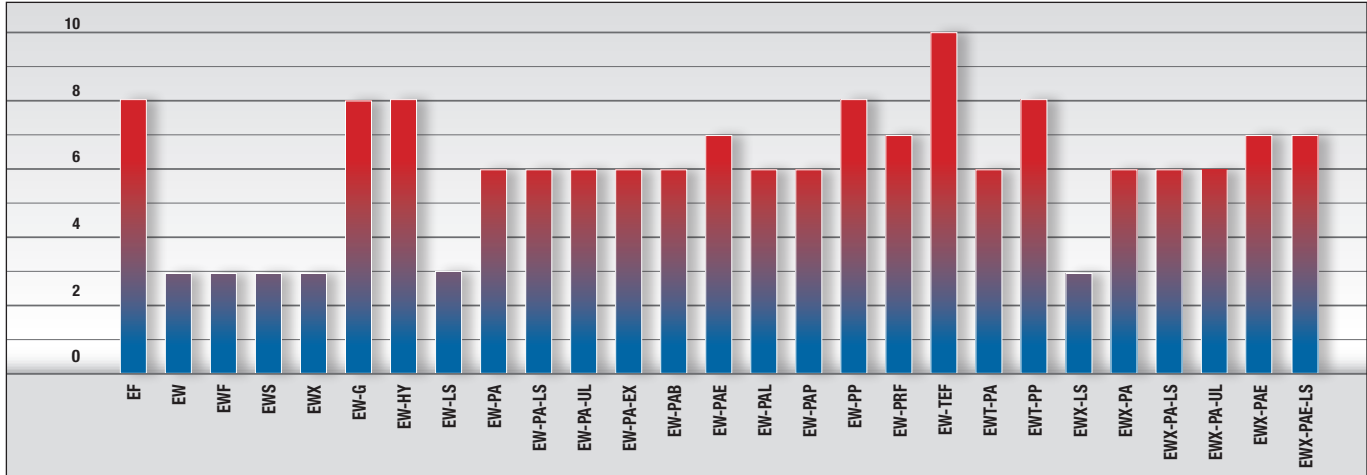


Flexibility

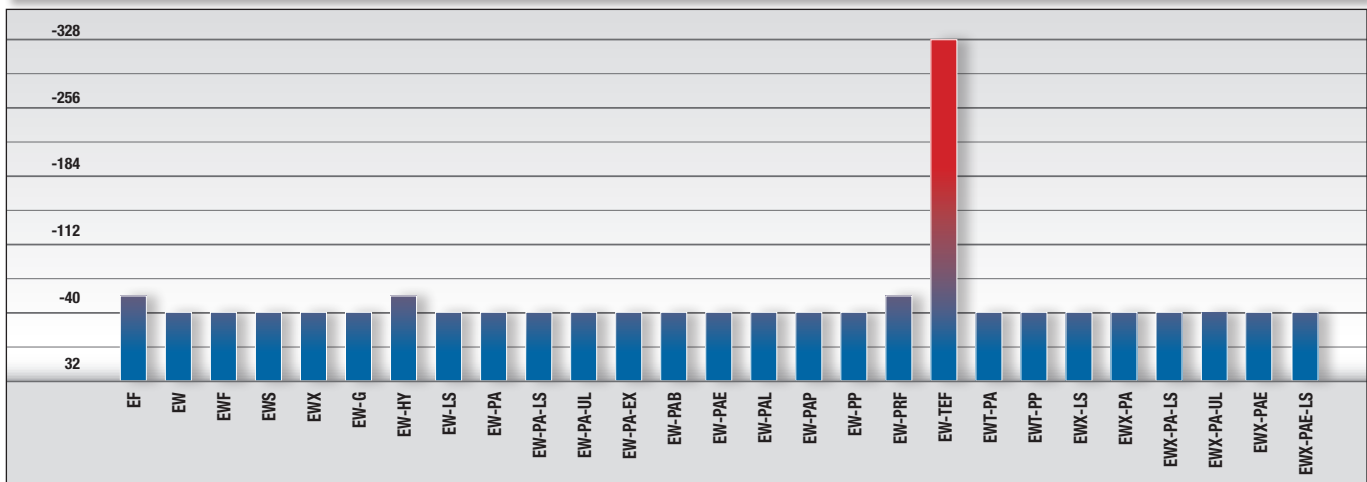


Flexural fatigue strength

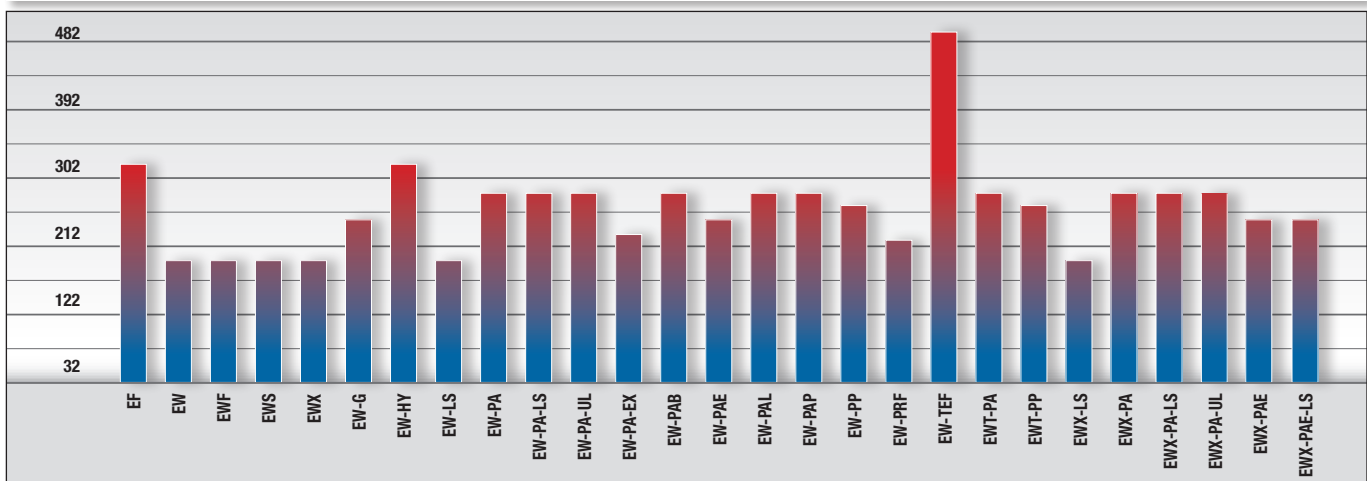
## Selection diagrams



Chemical resistance



Lower temperature range [°F]



Higher temperature range [°F]



## Combination options

Conduit fittings up to conduit size M50 / Pg48														
	m-top								m-tec					
	CVG	CWV 45°	CWV 90°	DWV 45°	DWV 90°	IVG	VG	VW 45°	VW 90°	EH	KW	CSKV	ECSKV	MECSKV
EF	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
EW	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWf	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-G	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿
EW-HY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-EX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAP	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
EW-PP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PRF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-TEF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GF	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

✓ combinable

✗ not combinable

⦿ combinable to an extent (remove sheathing)

## Combination options

Conduit fittings up to conduit size M50 / Pg48									From NW 70		Special			
m-tec			m-fix			Bulkhead fitting			m-Jumbo		EH-EMV	AT		
CKW	MCSKV	MCKW	MSV	WSV	KSV	KFW *	KFW/D	KFW/X	SA-Jumbo	KFW-Jumbo				
✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	EF
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗	EW
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-F
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EWS
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✗	✓	EWX
☉	☉	☉	☉	☉	☉	✓	☉	✗	☉	☉	✗	☉	☉	EW-G
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-HY
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-LS
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PA
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PA-LS
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PA-UL
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PA-EX
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PAB
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PAE
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PAL
✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	EW-PAP
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	EW-PP
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-PRF
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EW-TEF
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EWT-PA
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	EWT-PP
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✓	✓	EWX-LS
✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	EWX-PA
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✓	✓	EWX-PA-LS
✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	EWX-PA-UL
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✓	✓	EWX-PAE
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✓	✓	EWX-PAE-LS
✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	GF

✓ combinable

✗ not combinable

\* combinable where extraction forces are low

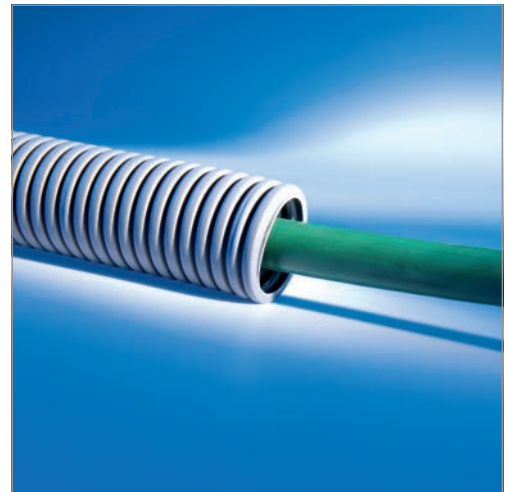
☉ combinable to an extent (remove sheathing)

\* in connection with an additional conduit or cable fitting















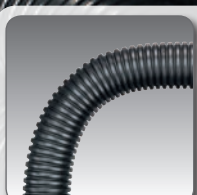











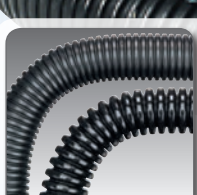















**Cable protection conduit  
Murrflex closed**






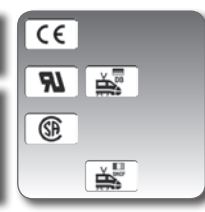


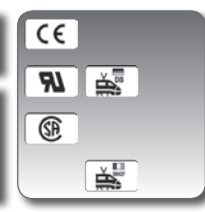


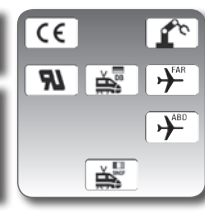


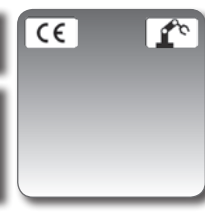


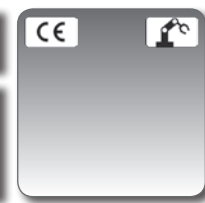

## System overview, standard cable protection conduit Murrflex

	<p><b>Type EW</b> <b>EWX (high corrugation)</b></p> <p>Universal cable protection conduit for light mechanical stresses or for bundling cables.</p> <p style="text-align: right;">Page 36</p>		<ul style="list-style-type: none"> <li> -40 – 194 °F short periods 248 °F</li> <li> Polyethylene</li> <li> Fire classification HB</li> <li> EW: &gt; 11.4 lb<sub>f</sub>/inch EWX: &gt; 22.8 lb<sub>f</sub>/inch</li> </ul>
	<p><b>Type EWS</b></p> <p>Cable protection conduit for light mechanical stresses. Ideal for bundling cables at control cabinet doors.</p> <p style="text-align: right;">Page 38</p>		<ul style="list-style-type: none"> <li> -40 – 194 °F short periods 248 °F</li> <li> Polyethylene</li> <li> Fire classification HB</li> <li> &gt; 5.7 lb<sub>f</sub>/inch</li> </ul>
	<p><b>Type EWF</b></p> <p>Universal self-extinguishing cable protection conduit for light mechanical stresses or bundling cables.</p> <p style="text-align: right;">Page 39</p>		<ul style="list-style-type: none"> <li> -40 – 194 °F short periods 248 °F</li> <li> Polyethylene</li> <li> Fire classification V2 Self-extinguishing</li> <li> &gt; 14.3 lb<sub>f</sub>/inch</li> </ul>
	<p><b>Type EW-PP</b></p> <p>Self-extinguishing cable protection conduit for medium mechanical stresses with good chemical resistance.</p> <p style="text-align: right;">Page 40</p>		<ul style="list-style-type: none"> <li> -40 – 266 °F short periods 302 °F</li> <li> Polypropylene</li> <li> Fire classification V2 Self-extinguishing</li> <li> &gt; 40.0 lb<sub>f</sub>/inch</li> </ul>
	<p><b>Type EW-PA</b> <b>EWX-PA (high corrugation)</b></p> <p>Most universal UR and CSA-listed cable protection conduit for medium to high mechanical stresses.</p> <p style="text-align: right;">Page 41</p>	  	<ul style="list-style-type: none"> <li> -40 – 284 °F short periods 320 °F</li> <li> Polyamide PA6</li> <li> Fire classification HB</li> <li> EW-PA: &gt; 40.0 lb<sub>f</sub>/inch EWX-PA: &gt; 74.30 lb<sub>f</sub>/inch</li> </ul>
	<p><b>Type EW-PAL</b></p> <p>Universal cable protection conduit for light to medium mechanical stresses.</p> <p style="text-align: right;">Page 43</p>		<ul style="list-style-type: none"> <li> -40 – 284 °F short periods 320 °F</li> <li> Polyamide PA6</li> <li> Fire classification HB</li> <li> &gt; 22.8 lb<sub>f</sub>/inch</li> </ul>

# Cable protection conduit

## Murrflex closed



	<p><b>Type EW-PAB</b></p> <p>Cable protection conduit for medium to high mechanical stresses. UR and CSA-listed self-extinguishing conduit approved for use in railway engineering.</p> <p style="text-align: right;">Page 44</p>		 <p>-40 – 284 °F short periods 320 °F</p> <p>Polyamide PA6</p> <p>Fire classification V0 Self-extinguishing &gt; 25.7 lb<sub>f</sub>/inch</p>
	<p><b>Type EW-PA-UL EWX-PA-UL (high corrugation)</b></p> <p>Self-extinguishing UR-listed cable protection conduit with eXtremely high mechanical strength yet excellent flexibility.</p> <p style="text-align: right;">Page 45</p>		 <p>-40 – 284 °F short periods 320 °F</p> <p>Polyamide PA6</p> <p>Fire classification V0 Self-extinguishing EW-PA-UL: &gt; 74.30 lb<sub>f</sub>/inch EWX-PA-UL: &gt; 217.2 lb<sub>f</sub>/inches</p>
	<p><b>Type EW-PRF</b></p> <p>Self-extinguishing cable protection conduit for high mechanical and dynamic stresses with a high level of flexibility. UR-listed and self-extinguishing.</p> <p style="text-align: right;">Page 47</p>		 <p>-58 – 221 °F short periods 302 °F</p> <p>Polyamide PA12</p> <p>Fire classification V0 Self-extinguishing &gt; 45.7 lb<sub>f</sub>/inch</p>
	<p><b>Type EW-HY</b></p> <p>Cable protection conduit for medium to high mechanical stresses and maximum flexibility. Ideal for robot applications at higher ambient temperatures.</p> <p style="text-align: right;">Page 48</p>		 <p>-58 – 320 °F short periods 356 °F</p> <p>Thermoplastic elastomer</p> <p>Fire classification HB &gt; 22.8 lb<sub>f</sub>/inch</p>
	<p><b>Type EW-PAE EWX-PAE (high corrugation)</b></p> <p>Specially developed cable protection conduit for robot applications. For eXtremely small bending radii with eXtremely high flexibility and eXtreme flexural fatigue strength.</p> <p style="text-align: right;">Page 49</p>		 <p>-40 – 248 °F short periods 302 °F</p> <p>Polyamide PA12</p> <p>Fire classification HB EW-PAE: &gt; 22.8 lb<sub>f</sub>/inch EWX-PAE: &gt; 28.6 lb<sub>f</sub>/inches</p>































## System overview, special cable protection conduit Murrflex



# Cable protection conduit

## Murrflex closed



	<p><b>Type EW-PA-EX</b></p> <p>Conductive plastic conduit made from polyamide 12 for applications in areas at risk of explosion. Complies with the ATEX guideline 94/9/EG.</p> <p style="text-align: right;">Page 51</p>	<p>CE Ex</p>	   	<p>-40 – 230 °F short periods 302 °F</p> <p>Polyamide PA12</p> <p>Fire classification HB</p> <p>&gt; 20.0 lb<sub>f</sub> /inch</p>
	<p><b>Type EW-TEF</b></p> <p>Self-extinguishing cable protection conduit for extreme temperatures and light mechanical stresses.</p> <p style="text-align: right;">Page 52</p>	<p>CE</p>	   	<p>-328 – 500 °F</p> <p>Fluoroplastic</p> <p>Fire classification V0 Self-extinguishing</p> <p>&gt; 11.4 lb<sub>f</sub> /inch</p>
	<p><b>Type EW-PAP (with metal braiding)</b></p> <p>Cable protection conduit sheathed in metal braiding. For use in EMV applications and as protection for cables against flying sparks.</p> <p style="text-align: right;">Page 53</p>	<p>CE</p>	   	<p>-40 – 248 °F short periods 320 °F</p> <p>Polyamide PA6 Galvanised steel wire</p> <p>Fire classification HB</p> <p>&gt; 45.7 lb<sub>f</sub> /inch</p>
	<p><b>Type EW-G (with EPDM sheathing)</b></p> <p>Cable protection conduit with smooth sheathing ensures easy cleaning and good chemical resistance. Standard connections can be used.</p> <p style="text-align: right;">Page 54</p>	<p>CE</p>	   	<p>-40 – 248 °F short periods 302 °F</p> <p>Polypropylene EPDM</p> <p>Fire classification HB</p> <p>&gt; 20.0 lb<sub>f</sub> /inch</p>
	<p><b>Type EF (rectangular conduit)</b></p> <p>Rectangular cable protection conduit for medium mechanical stresses and maximum flexibility. Ideal as an affordable alternative to cable drag chains.</p> <p style="text-align: right;">Page 55</p>	<p>CE</p>	   	<p>-58 – 320 °F short periods 356 °F</p> <p>Thermoplastic elastomer</p> <p>Fire classification HB</p> <p>&gt; 17.1 lb<sub>f</sub> /inch</p>
	<p><b>Type GF (braided conduit)</b></p> <p>Single wires and cables can be bundled together easily during assembly by pressing together the braided conduit.</p> <p style="text-align: right;">Page 56</p>	<p>CE</p>	  	<p>-58 – 302 °F short periods 347 °F</p> <p>Polyamide PA6</p> <p>Self-extinguishing</p>



## Recommendations for use

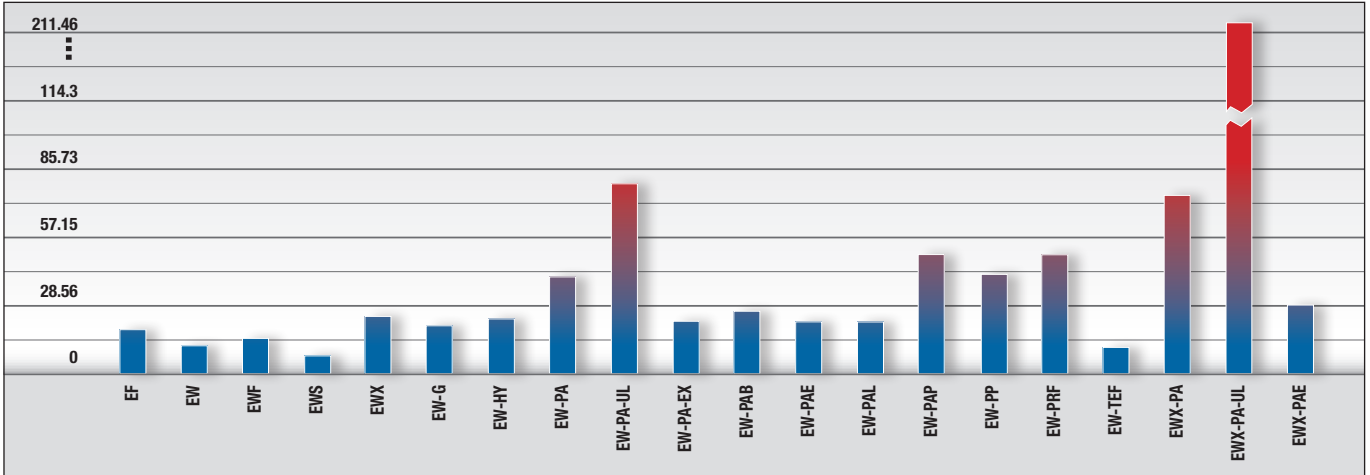
	EF	EW	EFW	EWS	EWX	EW-G	EW-HY	EW-PA	EW-PA-UL	EW-PA-EX	EW-PAB	EW-PAE	EW-PAL	EW-PAP	EW-PP	EW-PRF	EW-TEF	EWX-PA	EWX-PA-UL	EWX-PAE	GF	
Bundling cables		✓	✓	✓	✓																	✓
Light mechanical protection	✓	✓	✓	✓		✓											✓					
Medium mechanical protection					✓		✓			✓	✓	✓	✓								✓	
High mechanical protection								✓						✓	✓	✓						
Very high mechanical protection									✓									✓				
Extremely high mechanical protection																			✓			
Persistent movements / dynamic applications (robotically controlled axes)	✓						✓					✓			✓	✓					✓	
Protection against hot solids (e.g. chippings)													✓									
ATEX Guideline 94/9/EG										✓												
UL-listed conduits File No.: E148958								✓	✓		✓					✓				✓		
CSA-listed conduits File No.: 217843								✓	✓		✓											
German railways approval DIN 5510-2									✓		✓						✓					
Approved by French railways NF F 16-101									✓		✓						✓					
Airways approval ABD 0031																	✓					
Airways approval FAR 25853																	✓					
Very good chemical resistance	✓					✓	✓								✓		✓					
Hygiene applications						✓																
For pre-assembled cables and retrofitting of cables																						
Extreme temperature range																	✓					

## Material data

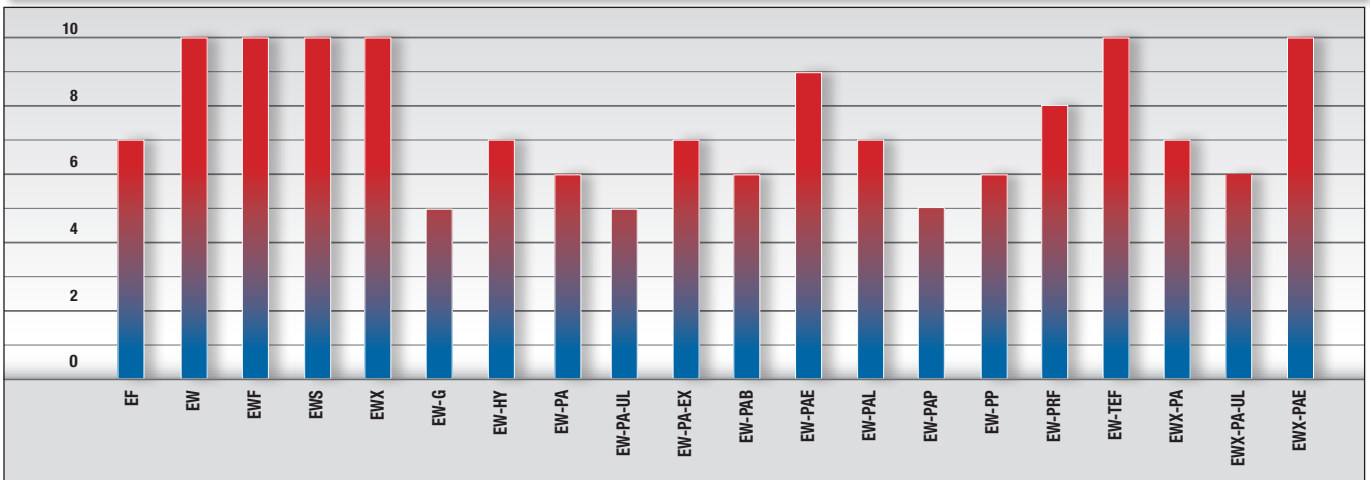
	Material	Temperature area [°F]			Fire specifications UL94	UL 224, type B	Self-extinguishing	UL File number E148958	Fire classification DIN 5510 S4	FMVSS Type A [ $<2.95 \text{ in./min}$ ] type B [ $<3.94 \text{ in./min}$ ]	CSA 217843	Crush resistance / inch EW-M25/P21 / EWX-M25/P21	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	PWIS-free	RoHS Compliant
		Min.	Max.	Short periods																
EF	Thermoplastic elastomer	-58	320	356	HB						>17.15	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW	Polyethylene	-40	194	248	HB				B		>11.43	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWF	Polyethylene	-40	194	248	V2	✓					>14.29	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWS	Polyethylene	-40	194	248	HB						>5.72	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX	Polyethylene	-40	194	248	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-G	Polypropylene, EPDM	-40	248	302	HB				A		>20.00		✓	✓	✓	✓	✓	✓	✓	✓
EW-HY	Thermoplastic elastomer	-58	320	356	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA	Polyamide PA6	-40	284	320	HB		✓		B	✓	>40.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-UL	Polyamide PA6	-40	284	320	V0	✓	✓	✓	A	✓	>74.30	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-EX	Polyamide PA12	-40	230	302	HB				B		>20.00	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAB	Polyamide PA6	-40	284	320	V0	✓	✓	✓	B	✓	>25.72	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAE	Polyamide PA12	-40	248	302	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAL	Polyamide PA6	-40	284	320	HB				B		>22.86	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAP	Polyamide PA6	-40	284	320	HB				B		>45.72	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PP	Polypropylene	-40	266	302	V2	✓			A		>40.00		✓	✓	✓	✓	✓	✓	✓	✓
EW-PRF	Polyamide PA12	-58	221	302	V0	✓	✓	✓	B		>45.72	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-TEF	Fluoroplastic	-328	500		V0	✓			A		>11.43	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA	Polyamide PA6	-40	284	320	HB				B		>74.30	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-UL	Polyamide PA6	-40	284	320	V0	✓	✓				>217.17	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE	Polyamide PA12	-40	248	302	HB				B		>28.56	✓	✓	✓	✓	✓	✓	✓	✓	✓
GF	Polyamide PA6	-40	302	347		✓	✓		B			✓	✓	✓	✓	✓	✓	✓	✓	✓



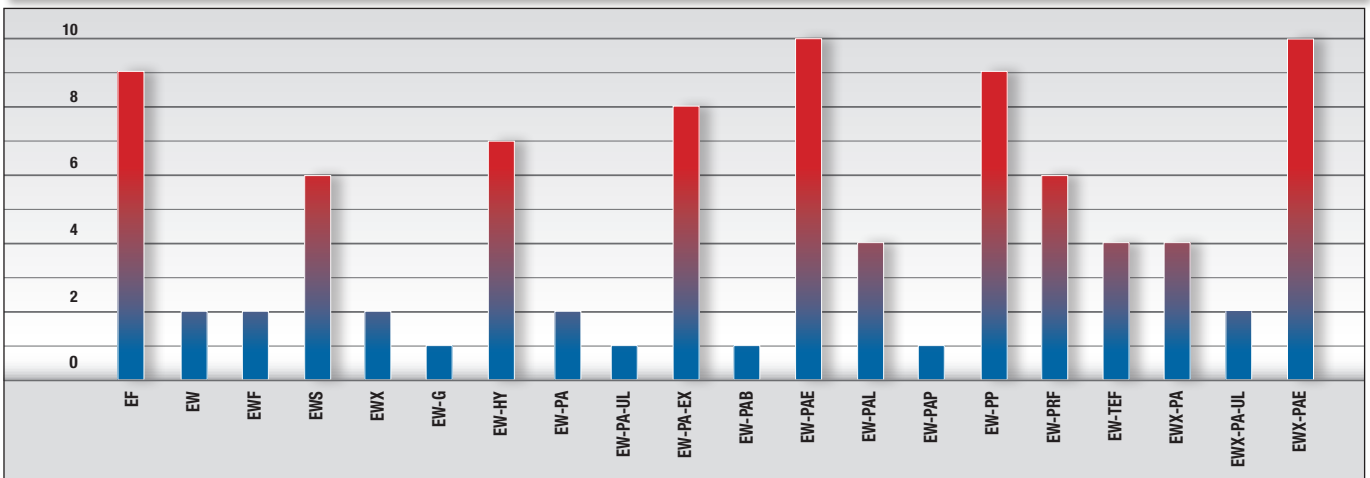
## Selection diagrams



Crush resistance [lb<sub>f</sub> / inch]



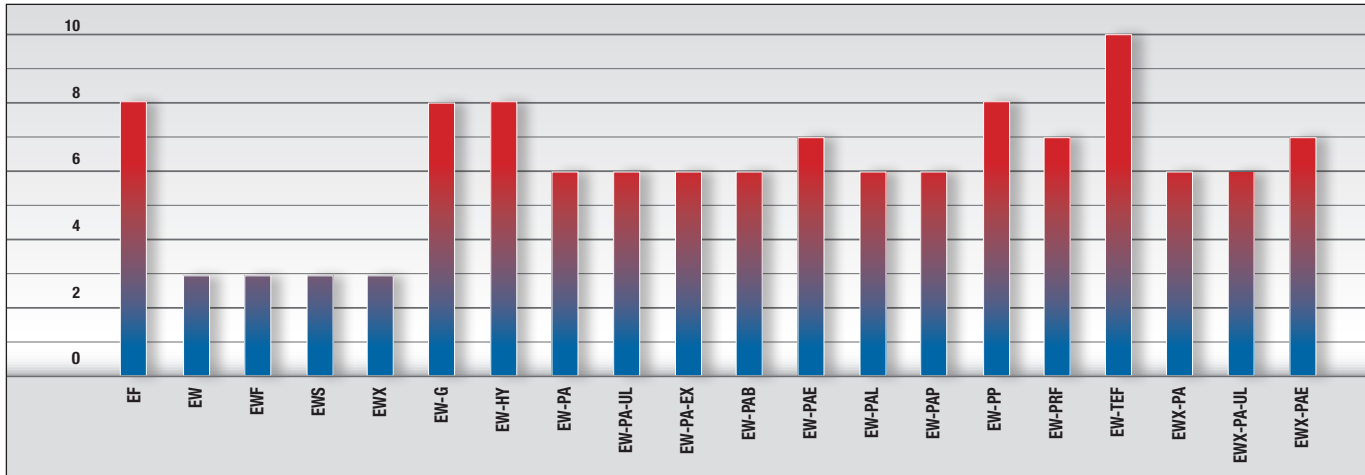
Flexibility



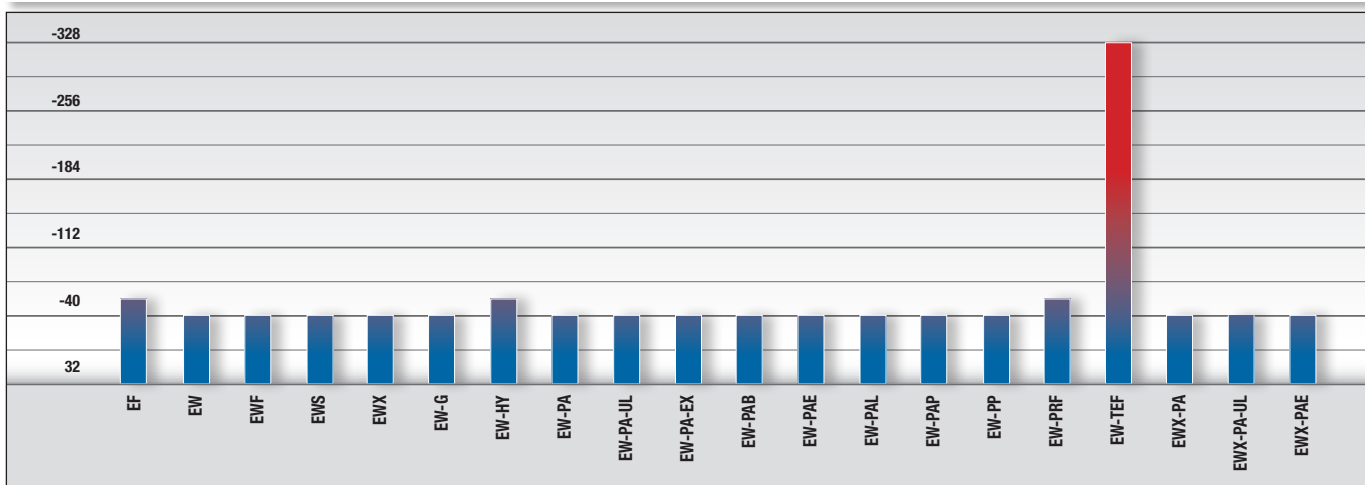
Flexural fatigue strength



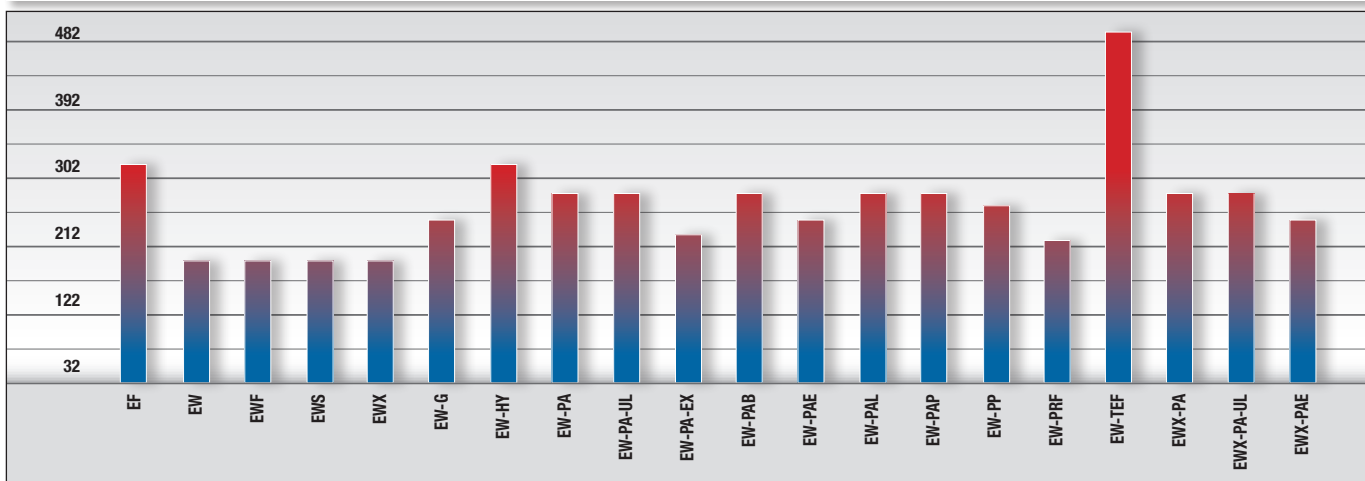
## Selection diagrams



Chemical resistance



Lower temperature range [°F]



Higher temperature range [°F]



## Combination options

	Conduit fittings up to conduit size M50 / Pg48													
	m-top									m-tec				
	CVG	CWV 45°	CWV 90°	DWV 45°	DWV 90°	IVG	VG	VW 45°	VW 90°	EH	KW	CSKV	ECSKV	MECSKV
EF	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
EW	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWf	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-G	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿
EW-HY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-EX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAP	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
EW-PP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PRF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-TEF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GF	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

✓ combinable

✗ not combinable

⦿ combinable to an extent (remove sheathing)

## Combination options

Conduit fittings up to conduit size M50 / Pg48									From NW56		Special			
m-tec			m-fix			Bulkhead fitting			m-Jumbo		EH-EMV	AT		
CKW	MCSKV	MCKW	MSV	WSV	KSV	KFW *	KFW/D	KFW/X	SA-Jumbo	KFW-Jumbo				
X	X	X	X	X	X	X	X	X	X	X	X	X	X	EF
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EWf	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EWS	
✓	✓	✓	*	*	*	✓	X	✓	✓	✓	X	✓	EWX	
••	••	••	••	••	••	✓	••	X	••	••	X	••	EW-G	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-HY	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PA	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PA-UL	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PA-EX	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PAB	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PAE	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PAL	
X	X	X	X	X	X	X	X	X	✓	✓	✓	X	EW-PAP	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PP	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-PRF	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EW-TEF	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EWX-PA	
✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	X	✓	EWX-PA-UL	
✓	✓	✓	*	*	*	✓	X	✓	✓	✓	X	✓	EWX-PAE	
X	X	X	X	X	X	X	X	X	X	X	X	X	GF	

✓ combinable

X not combinable

\* combinable where extraction forces are low

•• combinable to an extent (remove sheathing)

\* in connection with an additional conduit or cable fitting



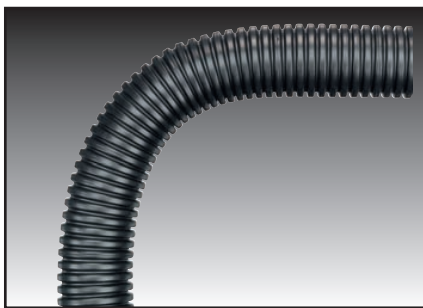
# Cable protection conduit Murrflex closed

## Type EW / EWX (high corrugation) RoHS compliant

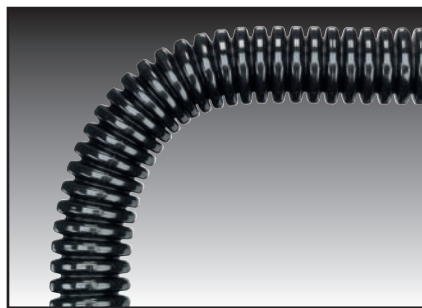
- 40 to 194 °F  
transient 248 °F
- Mod. polyethylene
- HB
- EW: > 11.43 lb<sub>f</sub>/inch  
EWX: > 22.86 lb<sub>f</sub>/inch
- Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

Universal cable protection conduit for light mechanical stresses or bundling cables with excellent flexibility.

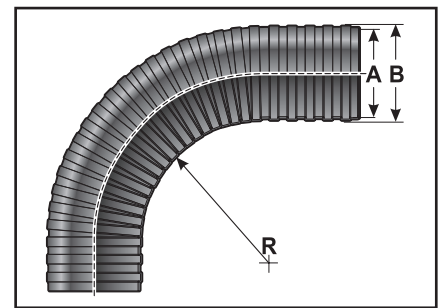
- Applications:
- Plant engineering
  - Mechanical engineering
  - Control cabinet construction



EW



EWX



Type	Order no.	Color	A	B	R	R	Weight	Pack
			Ø inches (Ø mm)	Ø inches (Ø mm)	inches (mm) static	inches (mm) dyn.		
EW-M10/P7	83101050	black	0.33 (8.50)	0.45 (11.50)	1.18 (30.00)	-	1.48 (2.2)	164 (50)
EW-M12/P9	83101052	black	0.39 (9.80)	0.51 (13.00)	1.57 (40.00)	-	1.61 (2.4)	164 (50)
EW-M16/P11	83101054	black	0.47 (12.00)	0.62 (15.80)	1.77 (45.00)	-	2.28 (3.4)	164 (50)
EW-M20/P16	83101056	black	0.62 (15.80)	0.83 (21.00)	2.17 (55.00)	-	3.63 (5.4)	164 (50)
EW-M20/P16S*	83101058	black	0.66 (16.80)	0.83 (21.00)	2.36 (60.00)	-	4.30 (6.4)	164 (50)
EW-M25/P21	83101060	black	0.89 (22.50)	1.12 (28.50)	2.76 (70.00)	-	5.51 (8.2)	164 (50)
EW-M32/P29	83101062	black	1.14 (29.00)	1.36 (34.50)	3.15 (80.00)	-	6.45 (9.6)	82 (25)
EW-M40/P36	83101064	black	1.42 (36.00)	1.67 (42.50)	3.94 (100.00)	-	8.33 (12.4)	82 (25)
EW-M50/P48	83101066	black	1.87 (47.50)	2.15 (54.50)	4.53 (115.00)	-	13.44 (20.0)	82 (25)
EW-70 Jumbo	83101070	black	2.66 (67.50)	3.15 (80.00)	7.09 (180.00)	-	30.91 (46.0)	82 (25)
EW-95 Jumbo	83101074	black	3.60 (91.50)	4.17 (106.00)	7.87 (200.00)	-	43.68 (65.0)	33 (10)
EW-M10/P7	83101010	grey	0.33 (8.50)	0.45 (11.50)	1.18 (30.00)	-	1.48 (2.2)	164 (50)
EW-M12/P9	83101012	grey	0.39 (9.80)	0.51 (13.00)	1.57 (40.00)	-	1.61 (2.4)	164 (50)
EW-M16/P11	83101014	grey	0.47 (12.00)	0.62 (15.80)	1.77 (45.00)	-	2.28 (3.4)	164 (50)
EW-M20/P16	83101016	grey	0.62 (15.80)	0.83 (21.00)	2.17 (55.00)	-	3.63 (5.4)	164 (50)
EW-M20/P16S*	83101020	grey	0.66 (16.80)	0.83 (21.00)	2.36 (60.00)	-	4.30 (6.4)	164 (50)
EW-M25/P21	83101022	grey	0.89 (22.50)	1.12 (28.50)	2.76 (70.00)	-	5.51 (8.2)	164 (50)
EW-M25/P21S*	83103022	grey	0.91 (23.00)	1.12 (28.50)	2.76 (70.00)	-	5.51 (8.2)	164 (50)
EW-M32/P29	83101026	grey	1.14 (29.00)	1.36 (34.50)	3.15 (80.00)	-	6.45 (9.6)	82 (25)
EW-M40/P36	83101030	grey	1.42 (36.00)	1.67 (42.50)	3.94 (100.00)	-	8.33 (12.4)	82 (25)
EW-M50/P48	83101032	grey	1.87 (47.50)	2.15 (54.50)	4.53 (115.00)	-	13.44 (20.0)	82 (25)
EW-70 Jumbo	83101036	grey	2.66 (67.50)	3.15 (80.00)	7.09 (180.00)	-	30.91 (46.0)	82 (25)
EW-95 Jumbo	83101040	grey	3.60 (91.50)	4.17 (106.00)	7.87 (200.00)	-	43.68 (65.0)	33 (10)

\* Narrow corrugation





# Cable protection conduit Murrflex closed

## Type EWS

RoHS  
compliant



-40 to 194 °F  
transient 248 °F



Mod. polyethylene



HB



> 5.72 lb./inch

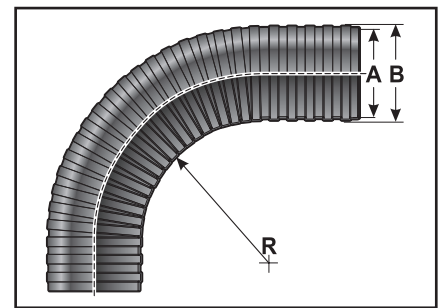
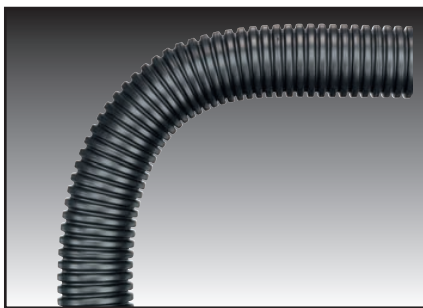


Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

Cable protection conduit for light mechanical stresses and excellent flexibility. Ideal for bundling cables at control cabinet doors.

Applications:

- Control cabinet construction



EWS



Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EWS-M20/P16	83101610	grey	0.62 (15.80)	0.83 (21.00)	2.17 (55.00)	-	3.63 (5.4)	164 (50)
EWS-M25/P21	83101612	grey	0.89 (22.50)	1.12 (28.50)	2.76 (70.0 0)	-	5.51 (8.2)	164 (50)
EWS-M32/P29	83101614	grey	1.14 (29.00)	1.36 (34.50)	3.15 (80.00)	-	6.45 (9.6)	82 (25)
EWS-M32/P29S*	83101620	grey	1.16 (29.50)	1.36 (34.50)	3.15 (80.00)	-	6.45 (9.6)	82 (25)
EWS-M40/P36	83101616	grey	1.42 (36.00)	1.67 (42.50)	3.94 (100.00)	-	8.33 (12.4)	82 (25)
EWS-M50/P48	83101618	grey	1.87 (47.50)	2.15 (54.50)	4.53 (115.00)	-	13.44 (20.0)	82 (25)

\* Narrow corrugation





# Cable protection conduit Murrflex closed

## Type EW-PP

RoHS  
compliant



-40 to 266 °F  
transient 302 °F



Mod. polypropylene



V2  
Self-extinguishing



> 40.00 lb<sub>f</sub> /inch

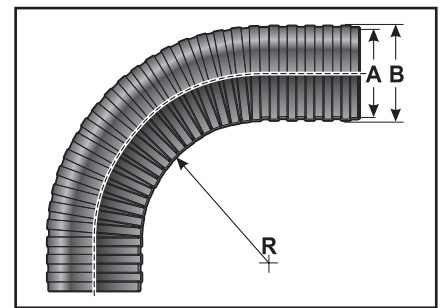
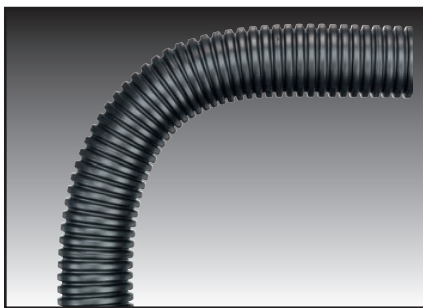


Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

Self-extinguishing cable protection conduit for medium mechanical stresses with good chemical resistance.

Applications:

- Plant engineering
- Mechanical engineering
- Chemical plants



EW-PP



Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PP-M10/P7	83201050	black	0.33 (8.50)	0.44 (11.20)	0.83 (21.00)	2.76 (70.00)	0.87 (1.3)	164 (50)
EW-PP-M12/P9	83201052	black	0.39 (9.80)	0.51 (13.00)	1.02 (26.00)	3.15 (80.00)	1.61 (2.4)	164 (50)
EW-PP-M16/P11	83201054	black	0.47 (12.00)	0.62 (15.80)	1.3 (33.00)	3.94 (100.00)	2.35 (3.5)	164 (50)
EW-PP-M20/P16	83201056	black	0.62 (15.80)	0.83 (21.00)	1.81 (46.00)	7.09 (180.00)	3.49 (5.2)	164 (50)
EW-PP-M20/P16S*	83201057	black	0.65 (16.60)	0.83 (21.00)	1.61 (41.00)	6.69 (170.00)	3.49 (5.2)	164 (50)
EW-PP-M25/P21	83201058	black	0.89 (22.50)	1.12 (28.50)	2.32 (59.00)	9.06 (230.00)	6.25 (9.3)	164 (50)
EW-PP-M32/P29	83201060	black	1.14 (29.00)	1.36 (34.50)	2.83 (72.00)	11.02 (280.00)	7.39 (11.0)	82 (25)
EW-PP-M40/P36	83201062	black	1.42 (36.00)	1.67 (42.50)	3.39 (86.00)	12.2 (310.00)	10.62 (15.8)	82 (25)
EW-PP-M50/P48	83201064	black	1.87 (47.50)	2.15 (54.50)	4.21 (107.00)	13.78 (350.00)	13.78 (20.5)	82 (25)
EW-PP-70 Jumbo	83201066	black	2.66 (67.50)	3.15 (80.00)	6.3 (160.00)	23.62 (600.00)	27.55 (41.0)	82 (25)
EW-PP-95 Jumbo	83201068	black	3.6 (91.50)	4.17 (106.00)	7.87 (200.00)	31.5 (800.00)	50.40 (75.0)	33 (10)
EW-PP-M10/P7	83201010	grey	0.33 (8.50)	0.44 (11.20)	0.83 (21.00)	2.76 (70.00)	0.87 (1.3)	164 (50)
EW-PP-M12/P9	83201012	grey	0.39 (9.80)	0.51 (13.00)	1.02 (26.00)	3.15 (80.00)	1.61 (2.4)	164 (50)
EW-PP-M16/P11	83201014	grey	0.47 (12.00)	0.62 (15.80)	1.3 (33.00)	3.94 (100.00)	2.35 (3.5)	164 (50)
EW-PP-M20/P16	83201016	grey	0.62 (15.80)	0.83 (21.00)	1.81 (46.00)	7.09 (180.00)	3.49 (5.2)	164 (50)
EW-PP-M25/P21	83201018	grey	0.89 (22.50)	1.12 (28.50)	2.32 (59.00)	9.06 (230.00)	6.25 (9.3)	164 (50)
EW-PP-M32/P29	83201020	grey	1.14 (29.00)	1.36 (34.50)	2.83 (72.00)	11.02 (280.00)	7.39 (11.0)	82 (25)
EW-PP-M40/P36	83201022	grey	1.42 (36.00)	1.67 (42.50)	3.39 (86.00)	12.2 (310.00)	10.62 (15.8)	82 (25)
EW-PP-M50/P48	83201024	grey	1.87 (47.50)	2.15 (54.50)	4.21 (107.00)	13.78 (350.00)	13.78 (20.5)	82 (25)
EW-PP-70 Jumbo	83201026	grey	2.66 (67.50)	3.15 (80.00)	6.3 (160.00)	23.62 (600.00)	27.55 (41.0)	82 (25)
EW-PP-95 Jumbo	83201028	grey	3.6 (91.50)	4.17 (106.00)	7.87 (200.00)	31.5 (800.00)	50.40 (75.0)	33 (10)

\* Narrow corrugation



## Type EW-PA / EWX-PA (high corrugation)

RoHS  
compliant



-40 to 140 °F  
transient 160 °F



Mod. polyamide 6



HB



EW-PA: > 40.00 lb<sub>f</sub>/inch  
EWX-PA: > 74.30 lb<sub>f</sub>/inch

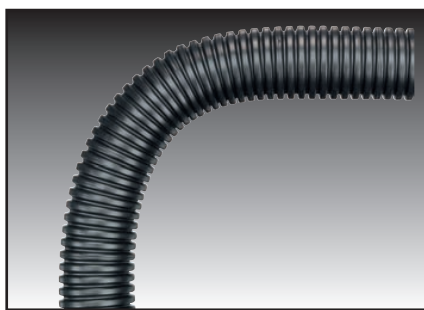


Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

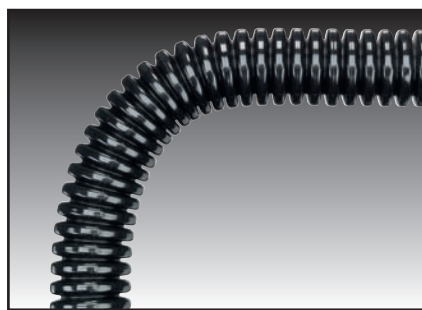
Most universal UR and CSA-listed cable protection conduit for medium to high mechanical stresses.

Applications:

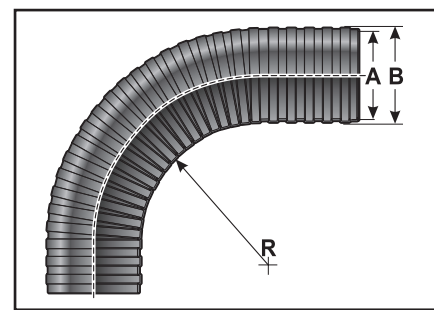
- Plant engineering
- Mechanical engineering
- Vehicle engineering



EW-PA



EWX-PA



Type	Order no.	Color	A	B	R	R	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
			Ø inches (Ø mm)	Ø inches (Ø mm)	inches (mm) static	inches (mm) dyn.		
EW-PA-06	83161050	black	0.26 (6.60)	0.39 (10.00)	0.83 (21.00)	-	1.48 (2.2)	164 (50)
EW-PA-M10/P7	83161052	black	0.33 (8.50)	0.45 (11.40)	0.94 (24.00)	-	1.68 (2.5)	164 (50)
EW-PA-M12/P9	83161054	black	0.39 (9.80)	0.51 (13.00)	1.02 (26.00)	-	1.75 (2.6)	164 (50)
EW-PA-M16/P11	83161056	black	0.48 (12.30)	0.62 (15.80)	1.50 (38.00)	-	2.28 (3.4)	164 (50)
EW-PA-M20/P16	83161060	black	0.62 (15.80)	0.83 (21.00)	2.17 (55.00)	-	3.63 (5.4)	164 (50)
EW-PA-M20/P16S*	83162062	black	0.65 (16.60)	0.83 (21.00)	1.97 (50.00)	-	4.23 (6.3)	164 (50)
EW-PA-M25/P21	83161064	black	0.88 (22.40)	1.12 (28.50)	2.52 (64.00)	-	6.05 (9.0)	164 (50)
EW-PA-M25/P21S*	83162064	black	0.91 (23.00)	1.12 (28.50)	2.32 (59.00)	-	6.05 (9.0)	164 (50)
EW-PA-M32/P29	83161072	black	1.10 (28.00)	1.36 (34.50)	2.83 (72.00)	-	8.40 (12.5)	82 (25)
EW-PA-M32/P29S*	83162072	black	1.14 (28.90)	1.36 (34.50)	2.64 (67.00)	-	9.07 (13.5)	82 (25)
EW-PA-M40/P36 **	83161076	black	1.40 (35.50)	1.67 (42.50)	3.19 (81.00)	-	9.95 (14.8)	82 (25)
EW-PA-M40/P36S*	83162076	black	1.42 (36.00)	1.67 (42.50)	2.99 (76.00)	-	10.08 (15.0)	82 (25)
EW-PA-M50/P48	83161078	black	1.83 (46.50)	2.15 (54.50)	3.82 (97.00)	-	13.44 (20.0)	82 (25)
EW-PA-M50/P48S*	83162080	black	1.87 (47.50)	2.15 (54.50)	3.62 (92.00)	-	14.65 (21.8)	82 (25)
EW-PA-70 Jumbo	83161082	black	2.66 (67.50)	3.15 (80.00)	6.3 (160.00)	-	30.91 (46.0)	82 (25)
EW-PA-95 Jumbo	83161086	black	3.60 (91.50)	4.17 (106.00)	7.87 (200.00)	-	55.77 (83.0)	33 (10)
EW-PA-06	83161010	grey	0.26 (6.60)	0.39 (10.00)	0.83 (21.00)	-	1.48 (2.2)	164 (50)
EW-PA-M10/P7	83161012	grey	0.33 (8.50)	0.45 (11.40)	0.94 (24.00)	-	1.68 (2.5)	164 (50)
EW-PA-M12/P9	83161014	grey	0.39 (9.80)	0.51 (13.00)	1.02 (26.00)	-	1.75 (2.6)	164 (50)
EW-PA-M16/P11	83161016	grey	0.48 (12.30)	0.62 (15.80)	1.50 (38.00)	-	2.28 (3.4)	164 (50)
EW-PA-M20/P16	83161018	grey	0.62 (15.80)	0.83 (21.00)	2.17 (55.00)	-	3.63 (5.4)	164 (50)
EW-PA-M20/P16S*	83162020	grey	0.65 (16.60)	0.83 (21.00)	1.97 (50.00)	-	4.23 (6.3)	164 (50)
EW-PA-M25/P21	83161022	grey	0.88 (22.40)	1.12 (28.50)	2.52 (64.00)	-	6.05 (9.0)	164 (50)
EW-PA-M25/P21S*	83162022	grey	0.91 (23.00)	1.12 (28.50)	2.32 (59.00)	-	6.05 (9.0)	164 (50)
EW-PA-M32/P29	83161026	grey	1.10 (28.00)	1.36 (34.50)	2.83 (72.00)	-	8.40 (12.5)	82 (25)
EW-PA-M32/P29S*	83162026	grey	1.14 (28.90)	1.36 (34.50)	2.64 (67.00)	-	9.07 (13.5)	82 (25)
EW-PA-M40/P36 **	83161028	grey	1.40 (35.50)	1.67 (42.50)	3.19 (81.00)	-	9.95 (14.8)	82 (25)





# Cable protection conduit

## Murrflex closed



### Type EW-PA / EWX-PA (high corrugation)

RoHS  
compliant

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PA-M40/P36S*	83162030	grey	1.42 (36.00)	1.67 (42.50)	2.99 (76.00)	-	10.08 (15.0)	82 (25)
EW-PA-M50/P48	83161030	grey	1.83 (46.50)	2.15 (54.50)	3.82 (97.00)	-	13.44 (20.0)	82 (25)
EW-PA-M50/P48S*	83162034	grey	1.87 (47.50)	2.15 (54.50)	3.62 (92.00)	-	14.65 (21.8)	82 (25)
EW-PA-70 Jumbo	83161032	grey	2.66 (67.50)	3.15 (80.00)	6.30 (160.00)	-	30.91 (46.0)	82 (25)
EW-PA-95 Jumbo	83161034	grey	3.60 (91.50)	4.17 (106.00)	7.87 (200.00)	-	55.77 (83.0)	33 (10)
with high corrugation								
EWX-PA M25/P21	83162858	black	0.78 (19.80)	28.1	1.93 (49.00)	-	6.05 (9.0)	164 (50)
EWX-PA M32/P29	83162860	black	0.95 (24.10)	34.5	2.24 (57.00)	-	9.74 (14.5)	82 (25)
EWX-PA M40/P36	83162862	black	1.17 (29.70)	42.1	2.80 (71.00)	-	13.78 (20.5)	82 (25)
EWX-PA M50/P48	83162864	black	1.50 (38.00)	54.1	3.43 (87.00)	-	15.46 (23.0)	82 (25)

\* Narrow corrugation

\*\* CSA authorisation



## Type EW-PAL

RoHS  
compliant



-40 to 284 °F  
transient 320 °F



Mod. polyamide 6



HB



> 22.86 lb./inch

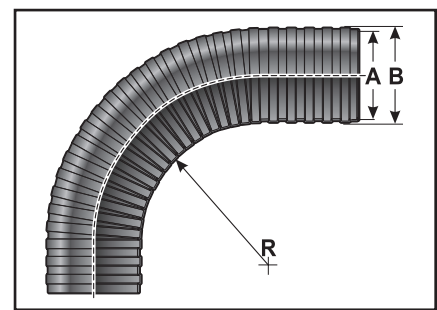
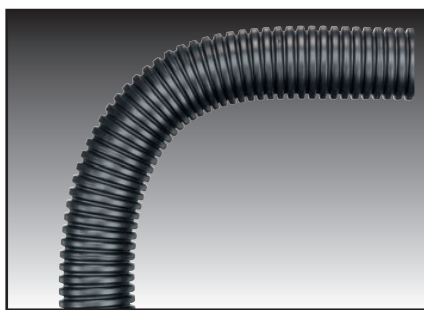


Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

Universal cable protection conduit for light to medium mechanical stresses.

Applications:

- Plant engineering
- Mechanical engineering
- Vehicle engineering



EW-PAL

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs/100 ft (kg/100 m)	Pack ft. (m)
EW-PAL-M10/P7	83161450	black	0.34 (8.70)	0.44 (11.20)	0.79 (20.00)	-	1.08 (1.6)	164 (50)
EW-PAL-M12/P9	83161452	black	0.39 (10.00)	0.51 (13.00)	0.98 (25.00)	-	1.14 (1.7)	164 (50)
EW-PAL-M16/P11	83161454	black	0.49 (12.50)	0.62 (15.80)	1.38 (35.00)	-	1.61 (2.4)	164 (50)
EW-PAL-M20/P16	83161456	black	0.63 (16.00)	0.83 (21.00)	1.97 (50.00)	-	2.55 (3.8)	164 (50)
EW-PAL-M20/P16S*	83161458	black	0.67 (17.00)	0.83 (21.00)	1.97 (50.00)	-	2.69 (4.0)	164 (50)
EW-PAL-M25/P21	83161460	black	0.89 (22.60)	1.12 (28.50)	2.36 (60.00)	-	3.36 (5.0)	164 (50)
EW-PAL-M32/P29	83161464	black	1.13 (28.70)	1.36 (34.50)	2.76 (70.00)	-	4.70 (7.0)	82 (25)
EW-PAL-M40/P36	83161468	black	1.43 (36.20)	1.67 (42.50)	3.15 (80.00)	-	7.73 (11.5)	82 (25)
EW-PAL-M50/P48	83161470	black	1.84 (46.70)	2.15 (54.50)	3.74 (95.00)	-	10.08 (15.0)	82 (25)
EW-PAL-M10/P7	83161410	grey	0.34 (8.70)	0.44 (11.20)	0.79 (20.00)	-	1.08 (1.6)	164 (50)
EW-PAL-M12/P9	83161412	grey	0.39 (10.00)	0.51 (13.00)	0.98 (25.00)	-	1.14 (1.7)	164 (50)
EW-PAL-M16/P11	83161414	grey	0.49 (12.50)	0.62 (15.80)	1.38 (35.00)	-	1.61 (2.4)	164 (50)
EW-PAL-M20/P16	83161416	grey	0.63 (16.00)	0.83 (21.00)	1.97 (50.00)	-	2.55 (3.8)	164 (50)
EW-PAL-M20/P16S*	83161418	grey	0.67 (17.00)	0.83 (21.00)	1.97 (50.00)	-	2.69 (4.0)	164 (50)
EW-PAL-M25/P21	83161420	grey	0.89 (22.60)	1.12 (28.50)	2.36 (60.00)	-	3.36 (5.0)	164 (50)
EW-PAL-M32/P29	83161424	grey	1.13 (28.70)	1.36 (34.50)	2.76 (70.00)	-	4.70 (7.0)	82 (25)
EW-PAL-M32/P29 S *	83161426	grey	1.15 (29.20)	1.36 (34.50)	2.76 (70.00)	-	4.70 (7.0)	82 (25)
EW-PAL-M40/P36	83161428	grey	1.43 (36.20)	1.67 (42.50)	3.15 (80.00)	-	7.73 (11.5)	82 (25)
EW-PAL-M50/P48	83161430	grey	1.84 (46.70)	2.15 (54.50)	3.74 (95.00)	-	10.08 (15.0)	82 (25)

\* Narrow corrugation








# Cable protection conduit

## Murrflex closed

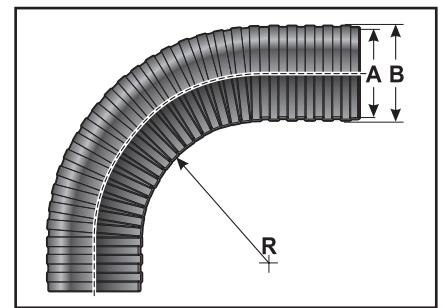
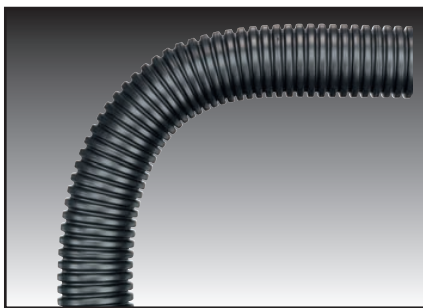
### Type EW-PAB

RoHS  
compliant

-  -40 to 284 °F  
transient 320 °F
-  Mod. polyamide 6
-  V0  
Self-extinguishing
-  > 25.72 lb./inch
-  Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

Cable protection conduit for medium to high mechanical stresses. UR and CSA-listed self-extinguishing conduit approved for use in railway engineering.  
For the static interior works in railway vehicles.

- Applications:
- Railway engineering
  - Plant engineering
  - Mechanical engineering
  - Vehicle engineering



EW-PAB






Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PAB 06	83162250	black	0.27 (6.80)	0.39 (9.90)	0.91 (23.00)	-	1.55 (2.3)	164 (50)
EW-PAB-M12/P9	83162254	black	0.39 (9.80)	0.51 (13.00)	1.02 (26.00)	-	1.75 (2.6)	164 (50)
EW-PAB-M16/P11	83162256	black	0.47 (12.00)	0.62 (15.80)	1.5 (38.00)	-	2.28 (3.4)	164 (50)
EW-PAB-M20/P16	83162258	black	0.65 (16.60)	0.83 (21.20)	2.2 (56.00)	-	4.23 (6.3)	164 (50)
EW-PAB-M20/P16S*	83162260	black	0.66 (16.80)	0.83 (21.00)	2.2 (56.00)	-	4.23 (6.3)	164 (50)
EW-PAB-M25/P21	83162262	black	0.88 (22.40)	1.12 (28.50)	2.52 (64.00)	-	6.45 (9.6)	164 (50)
EW-PAB-M25/P21S*	83162462	black	0.91 (23.00)	1.12 (28.50)	2.52 (64.00)	-	6.45 (9.6)	164 (50)
EW-PAB-M32/P29	83162266	black	1.12 (28.50)	1.36 (34.50)	3.03 (77.00)	-	8.40 (12.5)	82 (25)
EW-PAB-M32/P29S*	83162466	black	1.14 (28.90)	1.36 (34.50)	3.03 (77.00)	-	8.40 (12.5)	82 (25)
EW-PAB-M40/P36 **	83162268	black	1.42 (36.00)	1.67 (42.50)	3.58 (91.00)	-	9.95 (14.8)	82 (25)
EW-PAB-M50/P48	83162270	black	1.83 (46.50)	2.15 (54.50)	4.61 (117.00)	-	13.44 (20.0)	82 (25)
EW-PAB-70 Jumbo	83162278	black	2.66 (67.50)	3.15 (80.00)	7.87 (200.00)	-	30.91 (46.0)	82 (25)
EW-PAB-95 Jumbo	83162282	black	3.60 (91.50)	4.17 (106.00)	10.43 (265.00)	-	53.76 (80.0)	33 (10)
EW-PAB-M12/P9	83162214	grey	0.39 (9.80)	0.51 (13.00)	1.02 (26.00)	-	1.75 (2.6)	164 (50)
EW-PAB-M16/P11	83162216	grey	0.47 (12.00)	0.62 (15.80)	1.5 (38.00)	-	2.28 (3.4)	164 (50)
EW-PAB-M20/P16S*	83162220	grey	0.66 (16.80)	0.83 (21.00)	2.2 (56.00)	-	4.23 (6.3)	164 (50)
EW-PAB-M25/P21	83162222	grey	0.88 (22.40)	1.12 (28.50)	2.52 (64.00)	-	6.45 (9.6)	164 (50)
EW-PAB-M25/P21S*	83162422	grey	0.91 (23.00)	1.12 (28.50)	2.52 (64.00)	-	6.45 (9.6)	164 (50)
EW-PAB-M32/P29	83162226	grey	1.12 (28.50)	1.36 (34.50)	3.03 (77.00)	-	8.40 (12.5)	82 (25)
EW-PAB-M32/P29S*	83162426	grey	1.14 (28.90)	1.36 (34.50)	3.03 (77.00)	-	8.40 (12.5)	82 (25)
EW-PAB-M40/P36 **	83162228	grey	1.42 (36.00)	1.67 (42.50)	3.58 (91.00)	-	9.95 (14.8)	82 (25)
EW-PAB-M50/P48	83162230	grey	1.83 (46.50)	2.15 (54.50)	4.61 (117.00)	-	13.44 (20.0)	82 (25)
EW-PAB-70 Jumbo	83162238	grey	2.66 (67.50)	3.15 (80.00)	7.87 (200.00)	-	30.91 (46.0)	82 (25)
EW-PAB-95 Jumbo	83162242	grey	3.60 (91.50)	4.17 (106.00)	10.43 (265.00)	-	53.76 (80.0)	33 (10)

\* Narrow corrugation

\*\* CSA authorisation

## Type EW-PA-UL / EWX-PA-UL (high corrugation)

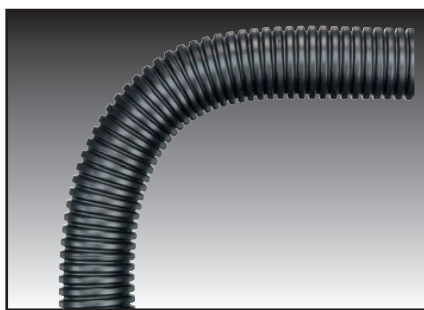
RoHS  
compliant

-  -40 to 284 °F  
transient 320 °F
-  Mod. polyamide 6
-  V0  
Self-extinguishing
-  EW-PA-UL: > 74.30 lb<sub>f</sub>/inch  
EWX-PA-UL: > 3.800 lb<sub>f</sub>/inch
-  Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

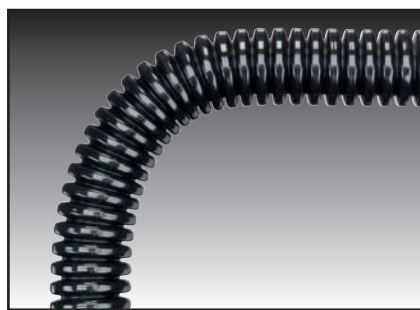
Self-extinguishing UR-listed cable protection conduit with extremely high mechanical strength yet excellent flexibility. This cable protection conduit is notable for its extreme angle consistency. That makes it suitable for use wherever cables require heavy-duty mechanical protection. A real alternative to expensively installed metal conduits.

Applications:

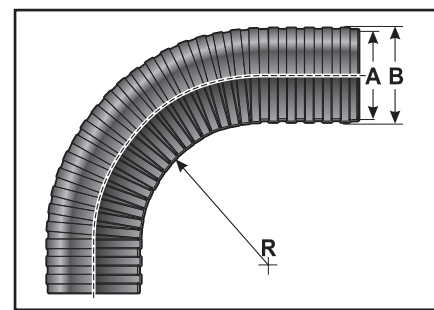
- Plant engineering
- Mechanical engineering
- Mining
- Railway engineering
- Vehicle engineering



EW-PA-UL



EWX-PA-UL



Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PA-UL-06	83161250	black	0.25 (6.40)	0.39 (10.00)	0.91 (23.00)	-	1.55 (2.3)	164 (50)
EW-PA-UL-M10/P7	83161252	black	0.33 (8.30)	0.44 (11.20)	1.02 (26.00)	-	1.81 (2.7)	164 (50)
EW-PA-UL-M12/P9	83161254	black	0.35 (9.00)	0.51 (13.00)	1.42 (36.00)	-	2.35 (3.5)	164 (50)
EW-PA-UL-M16/P11	83161256	black	0.43 (11.00)	0.62 (15.80)	1.89 (48.00)	-	3.16 (4.7)	164 (50)
EW-PA-UL-M20/P16	83161258	black	0.60 (15.30)	0.83 (21.00)	2.17 (55.00)	-	5.04 (7.5)	164 (50)
EW-PA-UL-M20/P16S*	83161260	black	0.64 (16.30)	0.83 (21.00)	2.28 (58.00)	-	6.32 (9.4)	164 (50)
EW-PA-UL-M25/P21	83161262	black	0.85 (21.60)	1.12 (28.50)	2.56 (65.00)	-	9.47 (14.1)	164 (50)
EW-PA-UL-M32/P29	83161264	black	1.08 (27.50)	1.36 (34.50)	3.03 (77.00)	-	11.96 (17.8)	82 (25)
EW-PA-UL-M40/P36 **	83161266	black	1.38 (35.00)	1.67 (42.50)	3.78 (96.00)	-	16.26 (24.2)	82 (25)
EW-PA-UL-M50/P48	83161268	black	1.79 (45.50)	2.15 (54.50)	4.41 (112.00)	-	20.16 (30.0)	82 (25)
EW-PA-UL 70 Jumbo	83161280	black	2.60 (66.00)	3.12 (79.30)	6.30 (160.00)	-	40.32 (60.0)	82 (25)
EW-PA-UL-06	83161210	grey	0.25 (6.40)	0.39 (10.00)	0.91 (23.00)	-	1.55 (2.3)	164 (50)
EW-PA-UL-M10/P7	83161212	grey	0.33 (8.30)	0.44 (11.20)	1.02 (26.00)	-	1.81 (2.7)	164 (50)
EW-PA-UL-M12/P9	83161214	grey	0.35 (9.00)	0.51 (13.00)	1.42 (36.00)	-	2.35 (3.5)	164 (50)
EW-PA-UL-M16/P11	83161216	grey	0.43 (11.00)	0.62 (15.80)	1.89 (48.00)	-	3.16 (4.7)	164 (50)
EW-PA-UL-M20/P16	83161218	grey	0.60 (15.30)	0.83 (21.00)	2.17 (55.00)	-	5.04 (7.5)	164 (50)
EW-PA-UL-M20/P16S*	83161220	grey	0.64 (16.30)	0.83 (21.00)	2.28 (58.00)	-	6.32 (9.4)	164 (50)
EW-PA-UL-M25/P21	83161222	grey	0.85 (21.60)	1.12 (28.50)	2.56 (65.00)	-	9.47 (14.1)	164 (50)
EW-PA-UL-M25/P21S*	83163222	grey	0.85 (21.60)	1.12 (28.50)	2.56 (65.00)	-	9.47 (14.1)	164 (50)
EW-PA-UL-M32/P29	83161224	grey	1.08 (27.50)	1.36 (34.50)	3.03 (77.00)	-	11.96 (17.8)	82 (25)
EW-PA-UL-M40/P36 **	83161226	grey	1.38 (35.00)	1.67 (42.50)	3.78 (96.00)	-	16.26 (24.2)	82 (25)
EW-PA-UL-M50/P48	83161228	grey	1.79 (45.50)	2.15 (54.50)	4.41 (112.00)	-	20.16 (30.0)	82 (25)

\* Narrow corrugation

\*\* CSA authorisation





# Cable protection conduit Murrflex closed



## Type EW-PA-UL / EWX-PA-UL (high corrugation) RoHS compliant

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
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with high corrugation								
EWX-PA-UL M25/P21 ***	83163458	black	0.78 (19.80)	1.11 (28.10)	1.93 (49.00)	-	7.86 (11.7)	164 (50)
EWX-PA-UL M32/P29 ***	83163460	black	0.90 (22.90)	1.35 (34.20)	2.24 (57.00)	-	11.42 (17.0)	82 (25)
EWX-PA-UL M40/P36 ***	83163462	black	1.17 (29.70)	1.66 (42.10)	2.80 (71.00)	-	14.78 (22.0)	82 (25)
EWX-PA-UL M50/P48 ***	83163464	black	1.50 (38.00)	2.13 (54.10)	3.43 (87.00)	-	19.49 (29.0)	82 (25)

\*\*\* No approved for railways



## Type EW-PRF

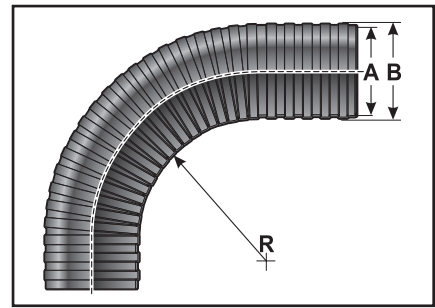
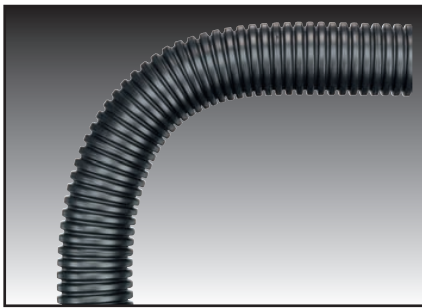
RoHS  
compliant

-  -58 to 221 °F  
transient 302 °F
-  Mod. polyamide 12
-  V0  
Self-extinguishing
-  > 45.72 lb./inch
-  Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

Cable protection conduit for high mechanical stresses and maximum flexibility. UR-listed self-extinguishing conduit approved for use in railway engineering. Particularly suited for dynamic routing in railway vehicles. FAR / ABD authorization for color grey only.

Applications:

- Railway engineering
- Robots
- Handling systems
- In cable drag chains



EW-PRF

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PRE-M10/P7	83181252	black	0.33 (8.50)	0.44 (11.20)	0.83 (21.00)	1.81 (46.00)	1.41 (2.1)	164 (50)
EW-PRF-M12/P9	83181254	black	0.39 (9.80)	0.51 (13.00)	0.87 (22.00)	2.01 (51.00)	1.75 (2.6)	164 (50)
EW-PRF-M16/P11	83181256	black	0.47 (12.00)	0.62 (15.80)	1.10 (28.00)	2.68 (68.00)	2.42 (3.6)	164 (50)
EW-PRF-M20/P16	83181258	black	0.62 (15.80)	0.83 (21.00)	1.50 (38.00)	3.74 (95.00)	3.56 (5.3)	164 (50)
EW-PRF-M20/P16S*	83181260	black	0.66 (16.80)	0.83 (21.00)	1.38 (35.00)	3.54 (90.00)	3.76 (5.6)	164 (50)
EW-PRF-M25/P21	83181262	black	0.87 (22.00)	1.12 (28.50)	1.93 (49.00)	4.29 (109.00)	6.45 (9.6)	164 (50)
EW-PRF-M25/P21S*	83181462	black	0.90 (22.90)	1.12 (28.50)	1.73 (44.00)	4.09 (104.00)	6.45 (9.6)	164 (50)
EW-PRF-M32/P29	83181264	black	1.10 (28.00)	1.36 (34.50)	2.64 (67.00)	5.59 (142.00)	8.20 (12.2)	82 (25)
EW-PRF-M32/P29S*	83181464	black	1.14 (28.90)	1.36 (34.50)	2.44 (62.00)	5.20 (132.00)	9.41 (14.0)	82 (25)
EW-PRF-M40/P36	83181266	black	1.42 (36.00)	1.67 (42.50)	3.19 (81.00)	7.52 (191.00)	10.89 (16.2)	82 (25)
EW-PRF-M50/P48	83181268	black	1.83 (46.50)	2.15 (54.50)	4.02 (102.00)	9.33 (237.00)	14.98 (22.3)	82 (25)
EW-PRF-70 Jumbo	83181272	black	2.66 (67.50)	3.15 (80.00)	7.87 (200.00)	15.35 (390.00)	32.25 (48.0)	82 (25)
EW-PRF-95 Jumbo	83181274	black	3.60 (91.50)	4.17 (106.00)	10.43 (265.00)	19.69 (500.00)	53.76 (80.0)	33 (10)
EW-PRE-M10/P7	83181212	grey	0.33 (8.50)	0.44 (11.20)	0.83 (21.00)	1.81 (46.00)	1.41 (2.1)	164 (50)
EW-PRF-M12/P9	83181214	grey	0.39 (9.80)	0.51 (13.00)	0.87 (22.00)	2.01 (51.00)	1.75 (2.6)	164 (50)
EW-PRF-M16/P11	83181216	grey	0.47 (12.00)	0.62 (15.80)	1.10 (28.00)	2.68 (68.00)	2.42 (3.6)	164 (50)
EW-PRF-M20/P16	83181218	grey	0.62 (15.80)	0.83 (21.00)	1.50 (38.00)	3.74 (95.00)	3.56 (5.3)	164 (50)
EW-PRF-M20/P16S*	83181220	grey	0.66 (16.80)	0.83 (21.00)	1.38 (35.00)	3.54 (90.00)	3.76 (5.6)	164 (50)
EW-PRF-M25/P21	83181222	grey	0.87 (22.00)	1.12 (28.50)	1.93 (49.00)	4.29 (109.00)	6.45 (9.6)	164 (50)
EW-PRF-M25/P21S*	83181422	grey	0.90 (22.90)	1.12 (28.50)	1.73 (44.00)	4.09 (104.00)	6.45 (9.6)	164 (50)
EW-PRF-M32/P29	83181224	grey	1.10 (28.00)	1.36 (34.50)	2.64 (67.00)	5.59 (142.00)	8.20 (12.2)	82 (25)
EW-PRF-M32/P29S*	83181424	grey	1.14 (28.90)	1.36 (34.50)	2.44 (62.00)	5.2 (132.00)	9.41 (14.0)	82 (25)
EW-PRF-M40/P36	83181226	grey	1.42 (36.00)	1.67 (42.50)	3.19 (81.00)	7.52 (191.00)	10.89 (16.2)	82 (25)
EW-PRF-M50/P48	83181228	grey	1.83 (46.50)	2.15 (54.50)	4.02 (102.00)	9.33 (237.00)	14.98 (22.3)	82 (25)
EW-PRF-70 Jumbo	83181232	grey	2.66 (67.50)	3.15 (80.00)	7.87 (200.00)	15.35 (390.00)	32.25 (48.0)	82 (25)
EW-PRF-95 Jumbo	83181234	grey	3.60 (91.50)	4.17 (106.00)	10.43 (265.00)	19.69 (500.00)	53.76 (80.0)	33 (10)

\* Narrow corrugation



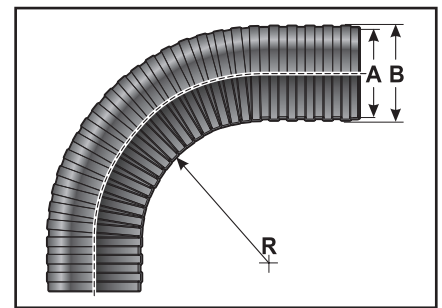
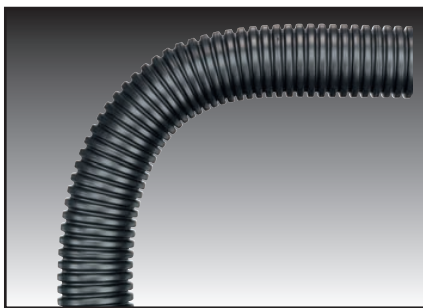
# Cable protection conduit Murrflex closed

## Type EW-HY RoHS compliant

- 58 to 320 °F  
transient 356 °F
- Thermoplastic elastomer
- HB
- > 22.86 lb<sub>f</sub> /inch
- Suitable fittings:  
m-top, -tec, -fix, -jumbo, KFW, AT

Cable protection conduit for medium to high mechanical stresses and maximum flexibility. Ideal for robot applications at higher ambient temperatures.

- Applications:
- Robots
  - Handling systems
  - Vehicle engineering



EW-HY

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-HY-M12/P9	83121050	black	0.39 (9.90)	0.51 (12.90)	0.83 (21.00)	2.01 (51.00)	1.75 (2.6)	164 (50)
EW-HY-M16/P11	83121052	black	0.48 (12.20)	0.62 (15.70)	1.10 (28.00)	2.68 (68.00)	2.28 (3.4)	164 (50)
EW-HY-M20/P16S*	83121054	black	0.65 (16.60)	0.83 (21.00)	1.50 (38.00)	3.74 (95.00)	4.23 (6.3)	164 (50)
EW-HY-M25/P21	83121056	black	0.88 (22.40)	1.12 (28.40)	1.93 (49.00)	4.29 (109.00)	6.05 (9.0)	164 (50)
EW-HY-M32/P29	83121058	black	1.11 (28.30)	1.36 (34.50)	2.64 (67.00)	5.59 (142.00)	8.40 (12.5)	82 (25)
EW-HY-M40/P36	83121060	black	1.40 (35.50)	1.67 (42.30)	3.19 (81.00)	7.52 (191.00)	9.95 (14.8)	82 (25)
EW-HY-M50/P48	83121062	black	1.87 (47.50)	2.13 (54.20)	4.02 (102.00)	9.33 (237.00)	13.44 (20.0)	82 (25)
EW-HY-70 Jumbo	83121066	black	2.62 (66.50)	3.13 (79.50)	5.51 (140.00)	12.99 (330.00)	34.61 (51.5)	82 (25)
EW-HY-95 Jumbo	83121070	black	3.58 (91.00)	4.15 (105.50)	5.91 (150.00)	15.75 (400.00)	60.48 (90.0)	33 (10)
EW-HY-M12/P9	83121010	grey	0.39 (9.90)	0.51 (12.90)	0.83 (21.00)	2.01 (51.00)	1.75 (2.6)	164 (50)
EW-HY-M16/P11	83121012	grey	0.48 (12.20)	0.62 (15.70)	1.10 (28.00)	2.68 (68.00)	2.28 (3.4)	164 (50)
EW-HY-M20/P16S*	83121014	grey	0.65 (16.60)	0.83 (21.00)	1.50 (38.00)	3.74 (95.00)	4.23 (6.3)	164 (50)
EW-HY-M25/P21	83121016	grey	0.88 (22.40)	1.12 (28.40)	1.93 (49.00)	4.29 (109.00)	6.05 (9.0)	164 (50)
EW-HY-M32/P29	83121018	grey	1.11 (28.30)	1.36 (34.50)	2.64 (67.00)	5.59 (142.00)	8.40 (12.5)	82 (25)
EW-HY-M40/P36	83121020	grey	1.40 (35.50)	1.67 (42.30)	3.19 (81.00)	7.52 (191.00)	9.95 (14.8)	82 (25)
EW-HY-M50/P48	83121022	grey	1.87 (47.50)	2.13 (54.20)	4.02 (102.00)	9.33 (237.00)	13.44 (20.0)	82 (25)
EW-HY-70 Jumbo	83121026	grey	2.62 (66.50)	3.13 (79.50)	5.51 (140.00)	12.99 (330.00)	34.61 (51.5)	82 (25)
EW-HY-95 Jumbo	83121030	grey	3.58 (91.00)	4.15 (105.50)	5.91 (150.00)	15.75 (400.00)	60.48 (90.0)	33 (10)

\* Narrow corrugation







## Type EW-PA-EX

RoHS  
compliant



-40 to 230 °F  
transient 302 °F



Mod. polyamide 12



HB



> 20.00 lb./inch

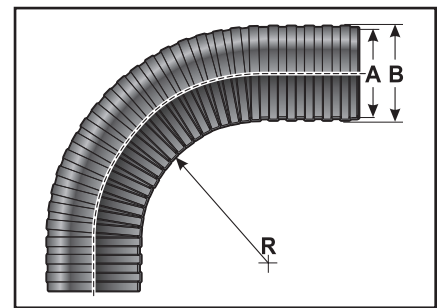
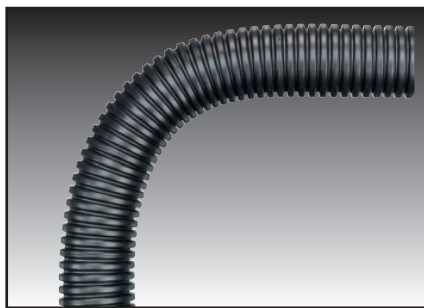


Suitable fittings:  
m-top, -tec, -fix, -jumbo; KFW; AT

Conductive plastic conduit made from polyamide 12 for applications in areas at risk of explosion. This cable protection conduit meets the requirements of ATEX Directive 94/9/EC. Suitable for static and dynamic applications.

Applications:

- Mining
- Refineries
- Chemical industry
- Robots








EW-PA-EX

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PA-EX M16/P11	83163654	black	0.48 (12.20)	0.62 (15.80)	0.79 (20.00)	2.36 (60.00)	2.42 (3.6)	164 (50)
EW-PA-EX M20/P16	83163656	black	0.62 (15.80)	0.83 (21.00)	0.98 (25.00)	3.15 (80.00)	3.56 (5.3)	164 (50)
EW-PA-EX M25/P21	83163658	black	0.85 (21.70)	1.11 (28.30)	1.38 (35.00)	3.74 (95.00)	6.05 (9.0)	164 (50)
EW-PA-EX M32/P29	83163660	black	1.10 (27.90)	1.36 (34.50)	1.97 (50.00)	4.92 (125.00)	8.20 (12.2)	82 (25)
EW-PA-EX M40/P36	83163662	black	1.39 (35.30)	1.67 (42.40)	2.36 (60.00)	6.69 (170.00)	10.89 (16.2)	82 (25)
EW-PA-EX M50/P48	83163664	black	1.87 (47.50)	2.14 (54.30)	2.95 (75.00)	8.27 (210.00)	14.98 (22.3)	82 (25)
EW-PA-EX 70 Jumbo	83163666	black	2.62 (66.50)	3.12 (79.20)	6.3 (160.00)	13.78 (350.00)	32.25 (48.0)	82 (25)
EW-PA-EX 95 Jumbo	83163668	black	3.58 (91.00)	4.17 (106.00)	8.27 (210.00)	17.72 (450.00)	53.76 (80.0)	33 (10)





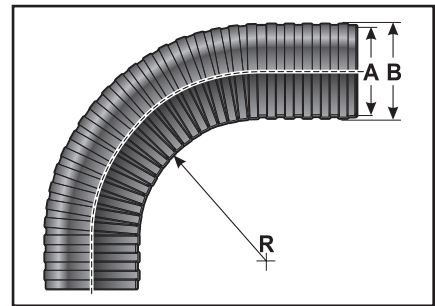
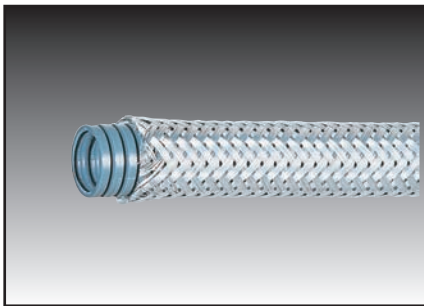
## Type EW-PAP (with metal braiding)

-  -40 to 284 °F  
transient 320 °F
-  Mod. polyamide 6  
Galvanized steel wire
-  HB
-  > 45.72 lb<sub>f</sub>/inch
-  Suitable fittings:  
EH-EMV

Cable protection conduit with sheathed metal braiding for high mechanical protection. Particularly suitable for EMC applications and applications where cables must be protected against hot solids (e.g. chippings).

Applications:

- EMC applications
- In areas exposed to hot chippings
- In welding areas



EW-PAP

Type	Order no.	Color	A Ø mm (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PAP-M12/P9	83141010	grey	0.39 (9.80)	0.55 (14.00)	1.46 (37.00)	-	10.75 (16.0)	164 (50)
EW-PAP-M16/P11	83141012	grey	0.48 (12.30)	0.66 (16.80)	2.28 (58.00)	-	12.77 (19.0)	164 (50)
EW-PAP-M20/P16	83141014	grey	0.62 (15.80)	0.87 (22.00)	3.19 (81.00)	-	14.78 (22.0)	164 (50)
EW-PAP-M25/P21	83141016	grey	0.88 (22.40)	1.16 (29.40)	3.74 (95.00)	-	18.14 (27.0)	164 (50)
EW-PAP-M32/P29	83141018	grey	1.08 (27.50)	1.40 (35.50)	4.65 (118.00)	-	27.55 (41.0)	82 (25)
EW-PAP-M40/P36	83141020	grey	1.40 (35.50)	1.71 (43.50)	6.38 (162.00)	-	32.25 (48.0)	82 (25)
EW-PAP-M50/P48	83141022	grey	1.83 (46.50)	2.19 (55.50)	8.19 (208.00)	-	48.38 (72.0)	82 (25)


Suitable EH-EMV fitting, see "Special fittings" chapter





## Type EF (rectangular conduit)

RoHS  
compliant

 -58 to 320 °F  
transient 356 °F

 Thermoplastic elastomer

 HB

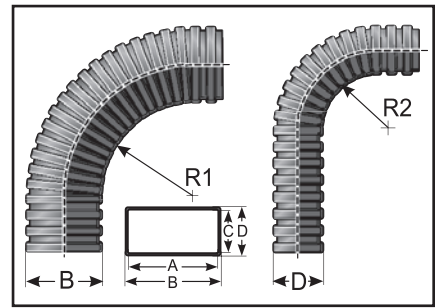
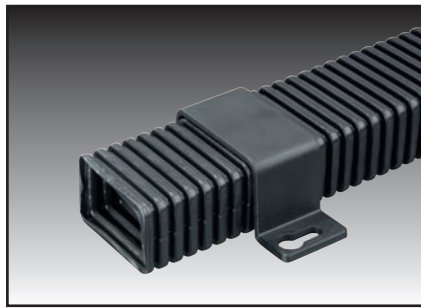
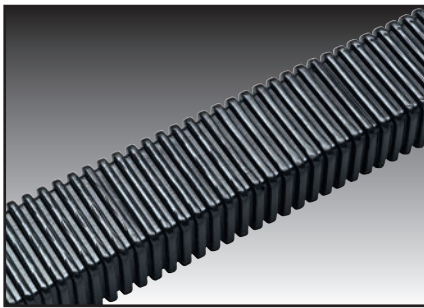
 > 17.15 lb./inch

 Suitable fittings:  
EF/B

Rectangular cable protection conduit for medium mechanical stresses and maximum flexibility. The 3 yard long cable protection conduits are ideal as a cost-effective alternative to cable drag chains.

Applications:

- Handling systems
- Plant engineering
- Controlled axes
- Robots



EF

Type	Order no.	Color	A	B	C	D	R1	R2	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
			inches (mm)	inches (mm)	inches (mm)	inches (mm)	stat./dyn. inches (mm)	stat./dyn. inches (mm)		

EF 26042	83361012	black	1.65 (42.00)	1.97 (50.00)	1.02 (26.00)	1.34 (34.00)	3.94/12.6 (100/320)	2.36/4.72 (60/120)	14.78 (22.0)	10 (3)
----------	----------	-------	--------------	--------------	--------------	--------------	------------------------	-----------------------	--------------	--------

Suitable EF/B holder, see "Cable protection conduit holders" chapter







**Cable protection conduit  
Murrflex open**





## System overview



# Cable protection conduit

## Murrflex open



### One-piece cable protection conduits Murrflex



#### Type EW-LS EWX-LS (high corrugation)

Universal cable protection conduit for light mechanical stresses. The longitudinal slit enables laying of pre-assembled cables as well as repairs to existing systems.

Page 66



-40 – 194 °F short periods 248 °F

Polyethylene

Fire classification HB

EW-LS: > 11.43 lb./inch  
EWX-LS: > 22.86 lb./inch



#### Type EW-PA-LS EWX-PA-LS (high corrugation)

Universal cable protection conduit for medium to high mechanical stress. The longitudinal slit enables the laying of pre-assembled cables.

Page 67



-40 – 284 °F short periods 320 °F

Polyamide PA6

Fire classification HB

EW-LS: > 40.00 lb./inch  
EWX-LS: > 74.30 lb./inch



#### Type EWX-PAE-LS (high corrugation)

Specially design for robot applications: For eXtremely small bending radii with eXtremely high flexibility and eXtreme flexural fatigue strength. It is also highly resistant to abrasion with low weight.

Page 68



-40 – 248 °F short periods 302 °F

Polyamide PA12

Fire classification HB

> 28.56 lb./inch

### Multi-piece cable protection conduits Murrflex Split-Flex



#### Type EWT-PP Split-Flex

Two-piece, slitted cable protection conduit made of polyamide with high mechanical strength. For the installation of pre-assembled cables or for later installations.

Page 69



-40 – 284 °F short periods 320 °F

Polyamide PA6

Fire classification HB

> 68.58 lb./inch



#### Type EWT-PP Split-Flex

Two-section polypropylene slit cable protection conduit with average mechanical strength and good chemical stability.

Page 70



-40 – 266 °F short periods 302 °F

Polypropylene

Fire classification V2  
Self-extinguishing

> 34.29 lb./inch



## Recommendations for use

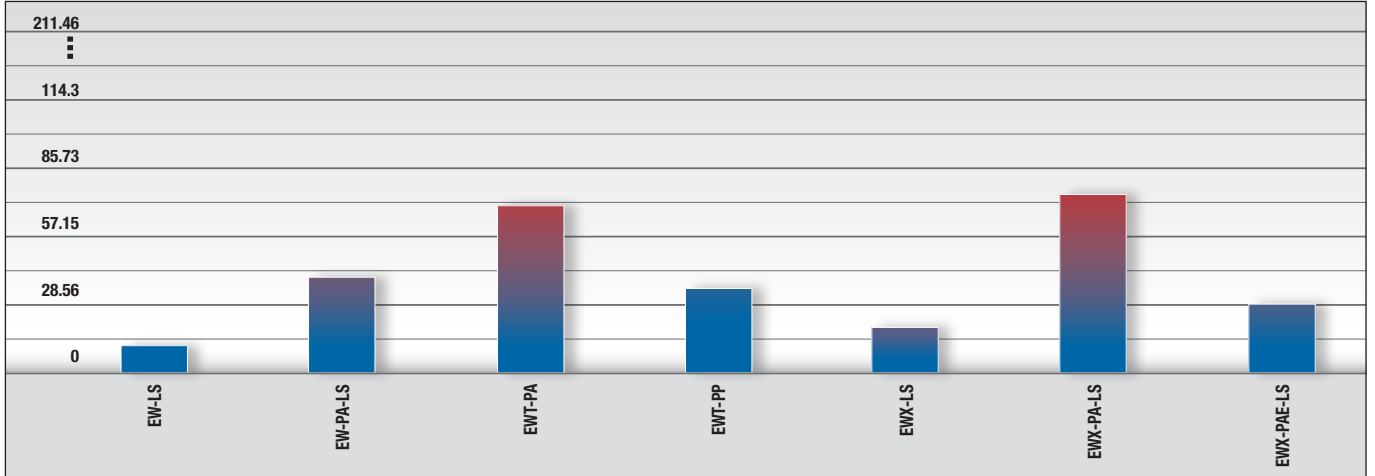
	EW-LS	EW-PA-LS	EWT-PA	EWT-PP	EWX-LS	EWX-PA-LS	EWX-PAE-LS
Bundling cables	✓				✓		
Light mechanical protection	✓						
Medium mechanical protection					✓		✓
High mechanical protection		✓	✓	✓			
Very high mechanical protection						✓	
Extremely high mechanical protection							
Persistent movements / dynamic applications (robotically controlled axes)							✓
Protection against hot solids (e.g. chippings)							
ATEX Guideline 94/9/EG							
UL-listed conduits File No.: E148958							
CSA-listed conduits File No.: 217843							
Approved by German railways DIN 5510-2							
Approved by French railways NF F 16-101							
Airways approval ABD 0031							
Airways approval FAR 25853							
Very good chemical resistance				✓			
Hygiene applications							
For pre-assembled cables and retrofitting of cables	✓	✓	✓	✓	✓	✓	✓
Extreme temperature range							

## Material data

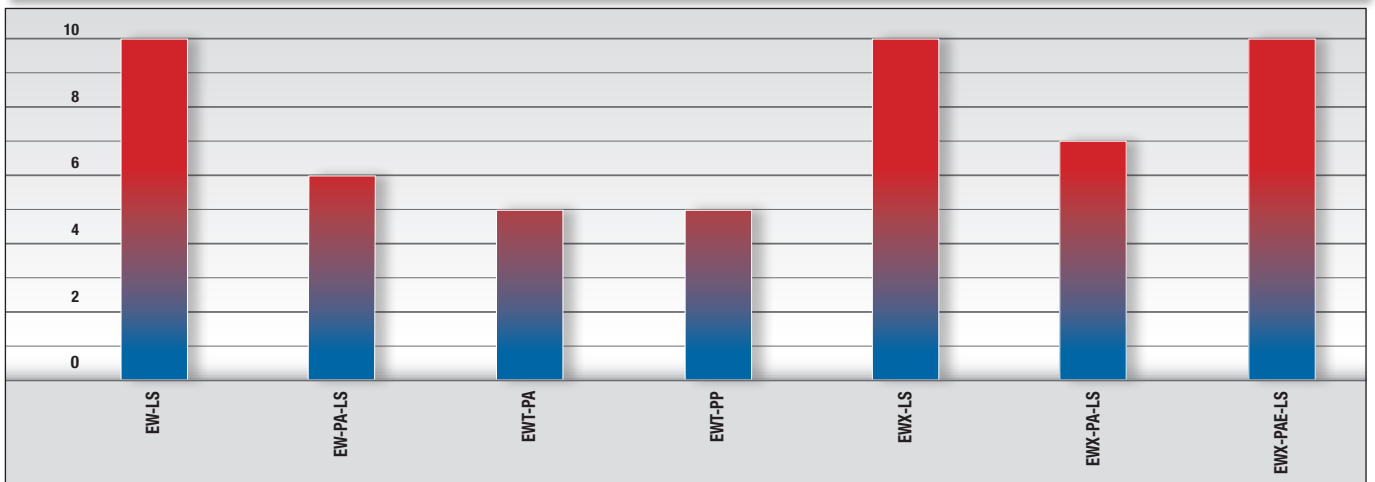
	Material	Temperature area [°F]			Fire specifications UL94	UL 224, type B	Self-extinguishing	UL File number E148958	Fire classification DIN 5510 S4	FMVSS Type A [ $<2.95$ in./min] Type B [ $<3.94$ in./min]	CSA 217843	Crush resistance / $lb_f$ /inch EW-M25/P21 / EWX-M25/P21	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	PWIS-free	RoHS Compliant
		Min.	Max.	Short periods																
EW-LS	Polyethylene	-40	194	248						B		$>11.43$	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-LS	Polyamide PA6	-40	284	320						B		$>40.00$	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PA	Polyamide PA6	-40	284	320								$>68.58$	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PP	Polypropylene	-40	266	302			✓					$>34.29$		✓	✓	✓	✓	✓	✓	✓
EWX-LS	Polyethylene	-40	194	248						B		$>22.86$	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-LS	Polyamide PA6	-40	284	320						B		$>74.30$	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE-LS	Polyamide PA12	-40	248	302						B		$>28.56$	✓	✓	✓	✓	✓	✓	✓	✓



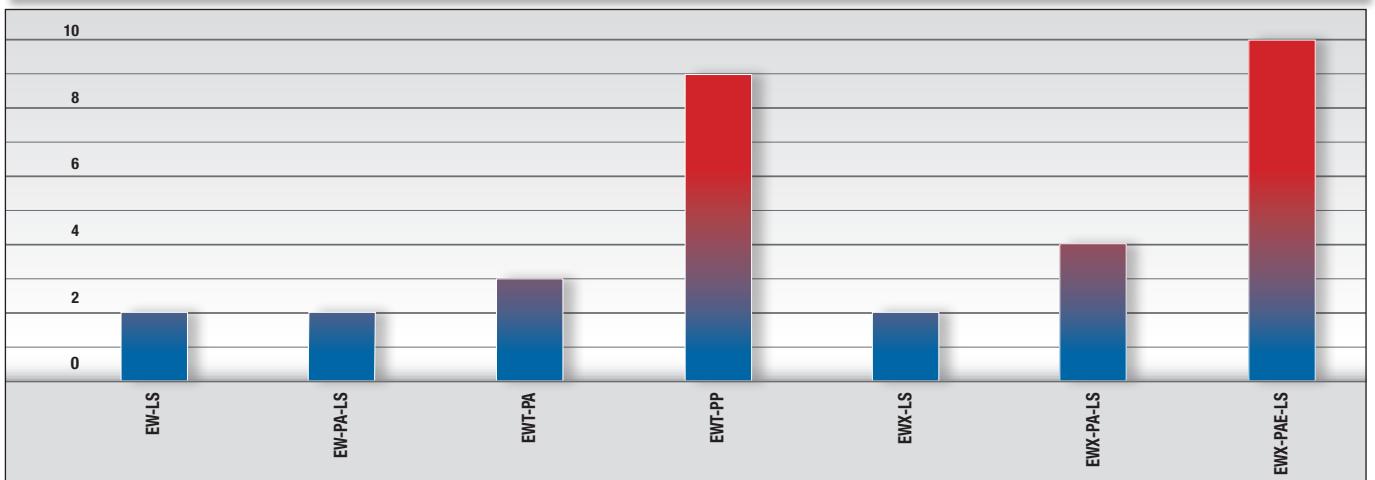
## Selection diagrams



Crush resistance [lb./inch]

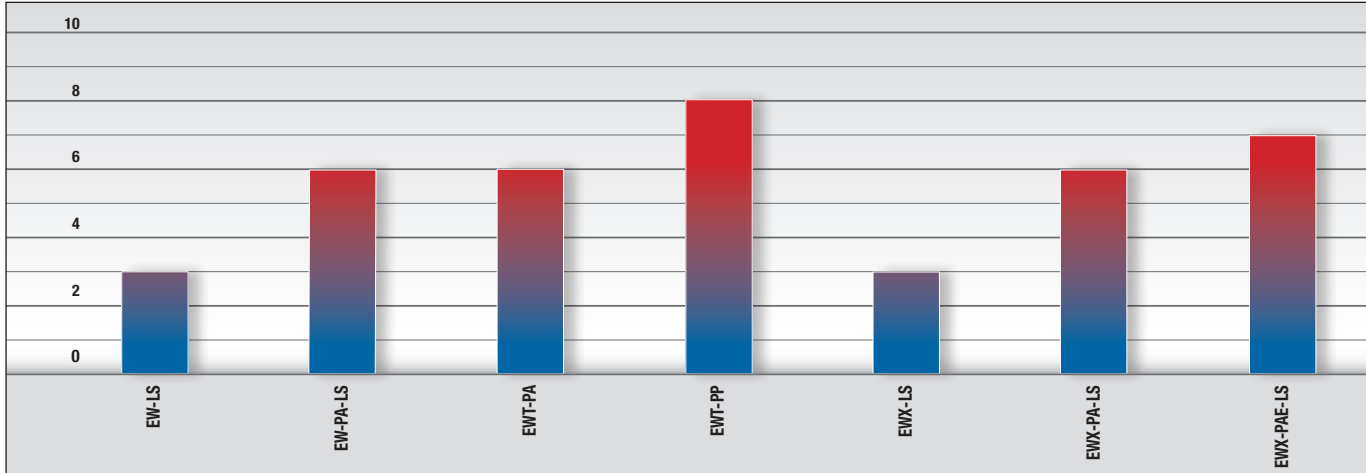


Flexibility

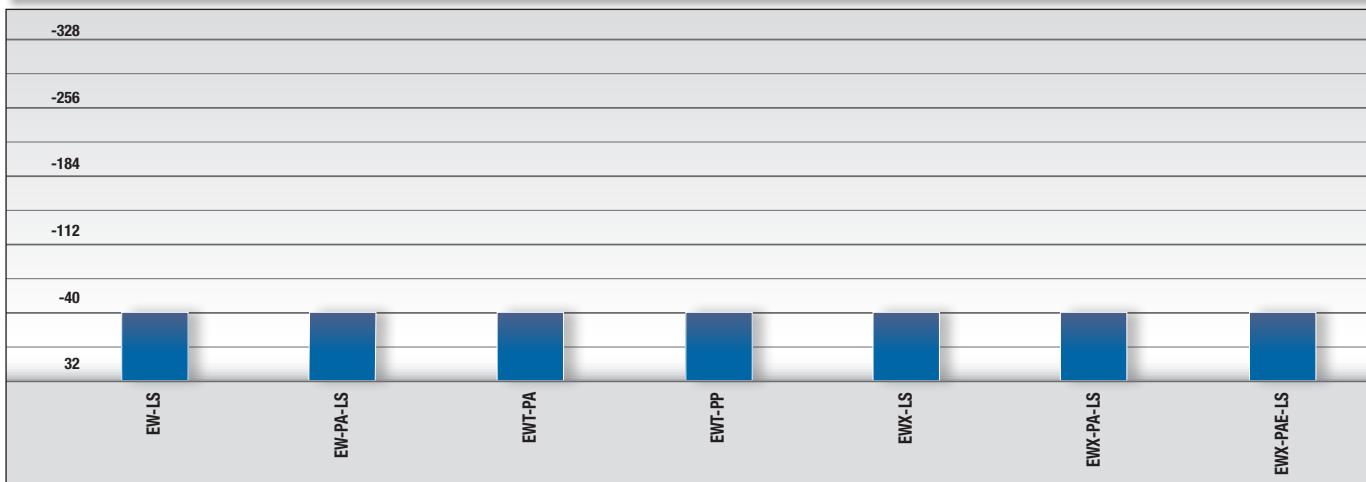


Flexural fatigue strength

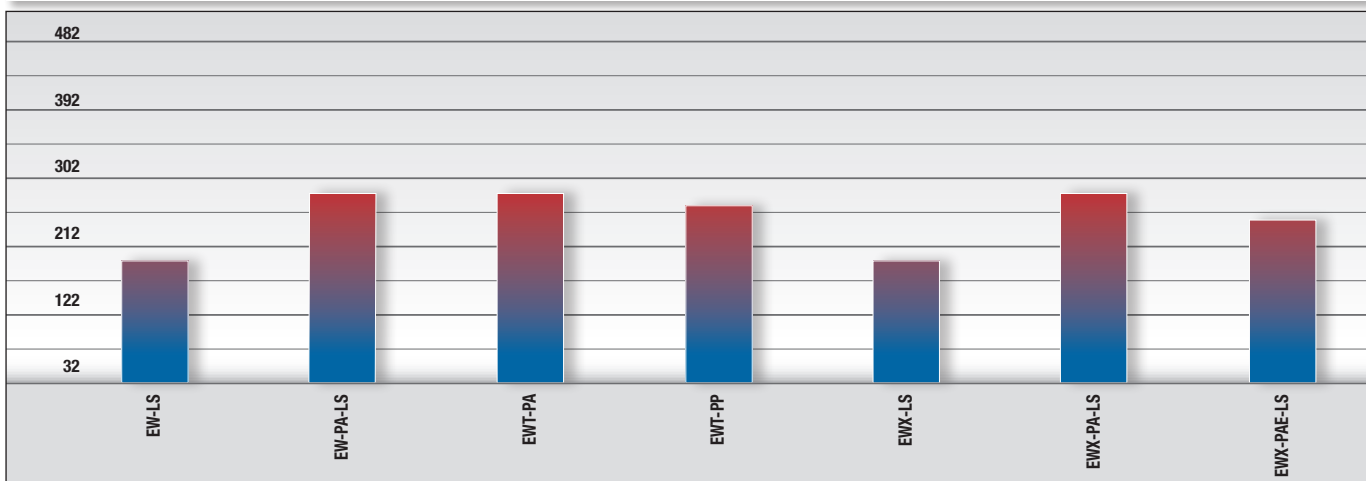
## Selection diagrams



Chemical resistance



Lower temperature range [°F]



Higher temperature range [°F]



## Combination options

	Conduit fittings up to conduit size M50 / Pg48													
	m-top									m-tec				
	CVG	CWV 45°	CWV 90°	DWV 45°	DWV 90°	IVG	VG	VW 45°	VW 90°	EH	KW	CSKV	ECSKV	MECSKV
EW-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ combinable



## Combination options

Conduit fittings up to conduit size M50 / Pg48									From NW 70		Special		
m-tec			m-fix			Bulkhead fitting			m-Jumbo		EH-EMV	AT	
CKW	MCSKV	MCKW	MSV	WSV	KSV	KFW *	KFW/D	KFW/X	SA-Jumbo	KFW-Jumbo			
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	EW-LS
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	EW-PA-LS
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	EWT-PA
✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	EWT-PP
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✓	EWX-LS
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✓	EWX-PA-LS
✓	✓	✓	*	*	*	✓	✗	✓	✓	✓	✗	✓	EWX-PAE-LS

✓ combinable

✗ not combinable

\* combinable where extraction forces are low






\* in connection with an additional conduit or cable fitting



# Murrflex cable protection conduit open

## Type EW-LS / EWX-LS (high corrugation)

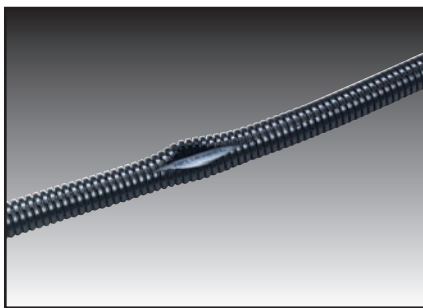
RoHS compliant

-  -40 to 194 °F  
transient 248 °F
-  Mod. polyethylene
-  HB
-  EW-LS: > 11.43 lb<sub>f</sub>/inch  
EWX-LS: > 22.86 lb<sub>f</sub>/inch
-  Suitable fittings:  
m-top, -tec, -fix, KFW, AT

Universal cable protection conduit for light mechanical stresses or bundling cables with excellent flexibility. The longitudinal slot enables pre-assembled cables to be easily fitted and existing systems to be repaired.

Applications:

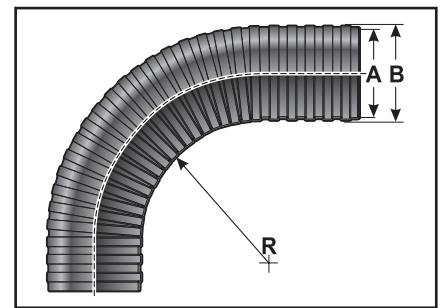
- Plant engineering
- Mechanical engineering
- Control cabinet construction



EW-LS



EWX-LS



Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-LS-M12/P9	83102412	grey	0.39 (9.80)	0.51 (13.00)	1.57 (40.00)	-	1.61 (2.4)	164 (50)
EW-LS-M16/P11	83102414	grey	0.47 (12.00)	0.62 (15.80)	1.77 (45.00)	-	2.28 (3.4)	164 (50)
EW-LS-M20/P16	83102416	grey	0.62 (15.80)	0.83 (21.00)	2.17 (55.00)	-	3.63 (5.4)	164 (50)
with high corrugation								
EWX-LS M25/P21	83102218	grey	0.76 (19.30)	1.11 (28.30)	1.93 (49.00)	-	6.05 (9.0)	164 (50)
EWX-LS M32/P29	83102220	grey	0.91 (23.00)	1.35 (34.20)	2.24 (57.00)	-	9.07 (13.5)	82 (25)
EWX-LS M40/P36	83102222	grey	1.13 (28.70)	1.67 (42.30)	2.8 (71.00)	-	10.08 (15.0)	82 (25)
EWX-LS M50/P48	83102224	grey	1.48 (37.50)	2.13 (54.00)	3.43 (87.00)	-	13.57 (20.2)	82 (25)

KE installation aid for longitudinally slit conduit, see "Tools" chapter

## Type EW-PA-LS / EWX-PA-LS (high corrugation)

RoHS  
compliant



-40 to 284 °F  
transient 320 °F



Mod. polyamide 6



HB



EW-PA-LS: > 40.00 lb<sub>f</sub>/inch  
EWX-PA-LS: > 74.30 lb<sub>f</sub>/inch

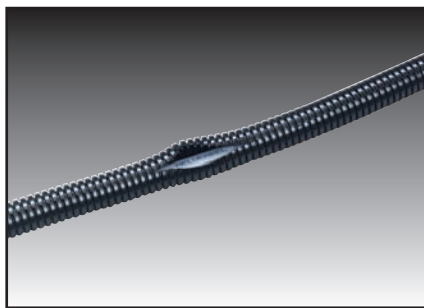


Suitable fittings:  
m-top, -tec, -fix, KFW, AT

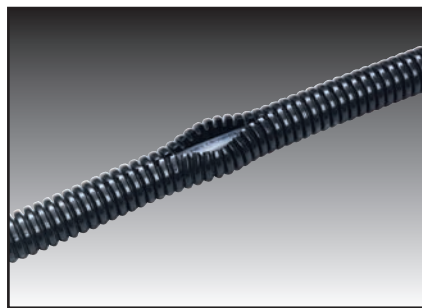
Universal cable protection conduit for medium to high mechanical stresses. The longitudinal slot enables pre-assembled cables to be easily fitted and existing systems to be repaired.

Applications:

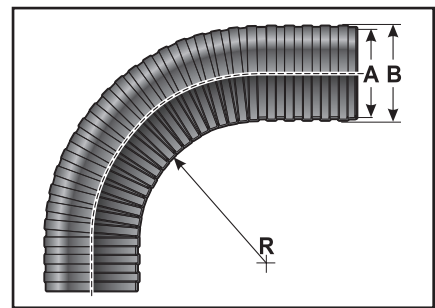
- Plant engineering
- Mechanical engineering
- Vehicle engineering



EW-PA-LS



EWX-PA-LS



Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EW-PA-LS 06	83163850	black	0.26 (6.60)	0.39 (10.00)	0.83 (21.00)	-	1.48 (2.2)	164 (50)
EW-PA-LS-M10/P7	83163851	black	0.33 (8.50)	0.45 (11.40)	0.94 (24.00)	-	1.68 (2.5)	164 (50)
EW-PA-LS-M12/P9	83163852	black	0.39 (9.80)	0.51 (13.00)	1.02 (26.00)	-	1.75 (2.6)	164 (50)
EW-PA-LS-M16/P11	83163854	black	0.48 (12.30)	0.62 (15.80)	1.5 (38.00)	-	2.28 (3.4)	164 (50)
EW-PA-LS-M20/P16	83163856	black	0.62 (15.80)	0.83 (21.00)	2.17 (55.00)	-	3.63 (5.4)	164 (50)
with high corrugation								
EWX-PA-LS M25/P21	83163058	black	0.78 (19.80)	1.11 (28.10)	1.93 (49.00)	-	6.05 (9.0)	164 (50)
EWX-PA-LS M32/P29	83163060	black	0.95 (24.10)	1.36 (34.50)	2.24 (57.00)	-	9.74 (14.5)	82 (25)
EWX-PA-LS M40/P36	83163062	black	1.17 (29.70)	1.66 (42.10)	2.8 (71.00)	-	13.78 (20.5)	82 (25)
EWX-PA-LS M50/P48	83163064	black	1.50 (38.00)	2.13 (54.10)	3.43 (87.00)	-	15.46 (23.0)	82 (25)






KE installation aid for longitudinally slit conduit, see "Tools" chapter



# Murrflex cable protection conduit open

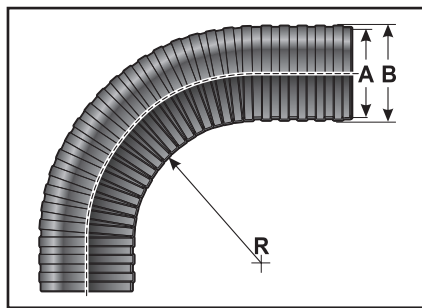
## Type EWX-PAE-LS (high corrugation)

RoHS compliant

-  -40 to 248 °F  
transient 302 °F
-  Mod. polyamide 12
-  HB
-  > 28.56 lb<sub>f</sub> /inch
-  Suitable fittings:  
m-top, -tec, -fix, KFW, AT

This cable protection conduit was developed specially for robot applications subject to extreme movements. Extremely small bending radii with extremely high flexibility and extreme flexural fatigue strength. It is also highly resistant to abrasion with low weight. The longitudinal slot enables pre-assembled cables to be easily fitted and existing systems to be repaired.

- Applications:
- Robots
  - Handling systems
  - In cable drag chains








EWX-PAE-LS

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EWX-PAE-LS M25/P21	83182258	black	0.78 (19.80)	1.11 (28.10)	1.93 (49.00)	4.09 (104.00)	6.05 (9.0)	164 (50)
EWX-PAE-LS M32/P29	83182260	black	0.95 (24.10)	1.36 (34.50)	2.24 (57.00)	4.61 (117.00)	8.20 (12.2)	82 (25)
EWX-PAE-LS M40/P36	83182262	black	1.17 (29.70)	1.66 (42.10)	2.80 (71.00)	5.75 (146.00)	11.96 (17.8)	82 (25)
EWX-PAE-LS M50/P48	83182264	black	1.50 (38.00)	2.13 (54.10)	3.43 (87.00)	6.57 (167.00)	15.12 (22.5)	82 (25)
EWX-PAE-LS 70 Jumbo	83182280	black	2.52 (64.00)	3.15 (80.00)	4.53 (115.00)	9.25 (235.00)	36.96 (55.0)	82 (25)

KE installation aid for longitudinally slit conduit, see "Tools" chapter

## Type EWT-PA Split-Flex

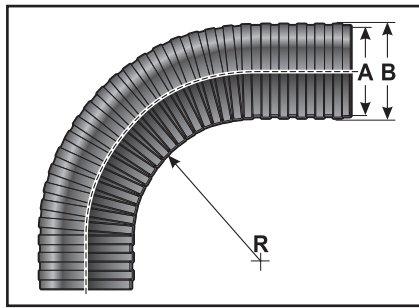
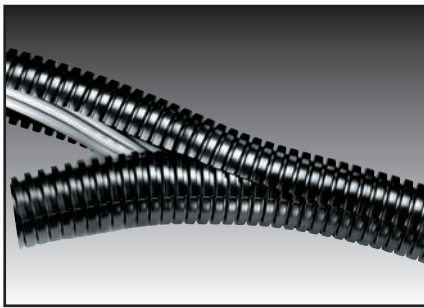
RoHS  
compliant

-  -40 to 284 °F  
transient 320 °F
-  Mod. polyamide 6
-  HB
-  > 1.200 lb<sub>f</sub>/inch
-  Suitable fittings:  
m-top, -tec, -fix, KFW, AT

Two-section, slit cable protection conduit made of polyamide with average mechanical strength. Very suited for the installation or retrofitting of pre-assembled cables.

Applications:

- Easy routing of pre-assembled cables
- Repair of existing systems
- Easy to retrofit
- Particularly fast insertion of cables, especially over long stretches



EWT-PA

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs / 100 ft (kg / 100 m)	Pack ft. (m)
EWT-PA M10/P7	83164250	black	0.24 (6.20)	0.44 (11.20)	2.76 (70.00)	-	2.08 (3.1)	164 (50)
EWT-PA M12/P9	83164252	black	0.31 (7.90)	0.51 (12.90)	2.95 (75.00)	-	2.69 (4.0)	164 (50)
EWT-PA M16/P11	83164254	black	0.41 (10.30)	0.62 (15.80)	3.94 (100.00)	-	4.70 (7.0)	164 (50)
EWT-PA M20/P16	83164256	black	0.55 (13.90)	0.83 (21.00)	4.72 (120.00)	-	6.25 (9.3)	164 (50)
EWT-PA M25/P21	83164258	black	0.81 (20.50)	1.11 (28.30)	6.69 (170.00)	-	9.41 (14.0)	164 (50)
EWT-PA M32/P29	83164260	black	1.05 (26.60)	1.36 (34.50)	7.09 (180.00)	-	12.43 (18.5)	82 (25)
EWT-PA M40/P36	83164262	black	1.26 (32.00)	1.65 (41.80)	7.87 (200.00)	-	18.14 (27.5)	82 (25)
EWT-PA M50/P48	83164264	black	1.69 (43.00)	2.13 (54.20)	9.45 (240.00)	-	21.50 (32.0)	82 (25)

KE installation aid for longitudinally slit conduit, see "Tools" chapter










# Murrflex cable protection conduit open

## Type EWT-PP Split-Flex

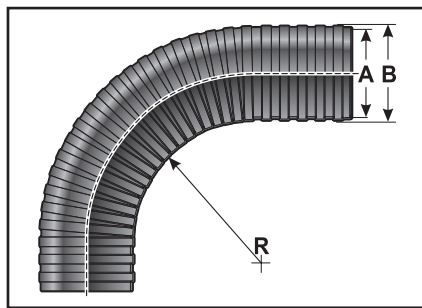
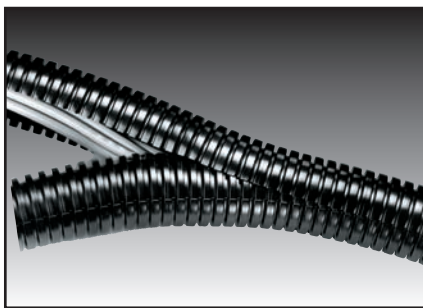


-  -40 to 266 °F  
transient 302 °F
-  Mod. polypropylene
-  V2  
Self-extinguishing
-  > 34.29 lb<sub>f</sub>/inch
-  Suitable fittings:  
m-top, -tec, -fix, KFW, AT

Two-section polypropylene slit cable protection conduit with average mechanical strength and good chemical stability. Very suited for the installation or retrofitting of pre-assembled cables.

**Applications:**

- Easy routing of pre-assembled cables
- Repair of existing systems
- Easy to retrofit
- Quick insertion of cables, especially over long stretches
- Good chemical resistance



EWT-PP

Type	Order no.	Color	A Ø inches (Ø mm)	B Ø inches (Ø mm)	R inches (mm) static	R inches (mm) dyn.	Weight lbs/100 ft (kg/100 m)	Pack ft. (m)
EWT-PP M10/P7	83204250	black	0.24 (6.20)	0.44 (11.20)	2.17 (55.00)	7.48 (190.00)	1.81 (2.7)	164 (50)
EWT-PP M12/P9	83204252	black	0.31 (7.90)	0.51 (12.90)	2.36 (60.00)	8.27 (210.00)	2.28 (3.4)	164 (50)
EWT-PP M16/P11	83204254	black	0.41 (10.30)	0.62 (15.80)	2.95 (75.00)	10.24 (260.00)	3.36 (5.0)	164 (50)
EWT-PP M20/P16	83204256	black	0.55 (13.90)	0.83 (21.00)	3.35 (85.00)	11.61 (295.00)	4.91 (7.3)	164 (50)
EWT-PP M25/P21	83204258	black	0.81 (20.50)	1.11 (28.30)	5.12 (130.00)	17.91 (455.00)	7.32 (10.9)	164 (50)
EWT-PP M32/P29	83204260	black	1.05 (26.60)	1.36 (34.50)	5.51 (140.00)	19.29 (490.00)	10.89 (16.2)	82 (25)
EWT-PP M40/P36	83204262	black	1.26 (32.00)	1.65 (41.80)	6.3 (160.00)	22.05 (560.00)	14.65 (21.8)	82 (25)
EWT-PP M50/P48	83204264	black	1.73 (44.00)	2.13 (54.20)	6.69 (170.00)	23.43 (595.00)	16.80 (25.0)	82 (25)

KE installation aid for longitudinally slit conduit, see "Tools" chapter

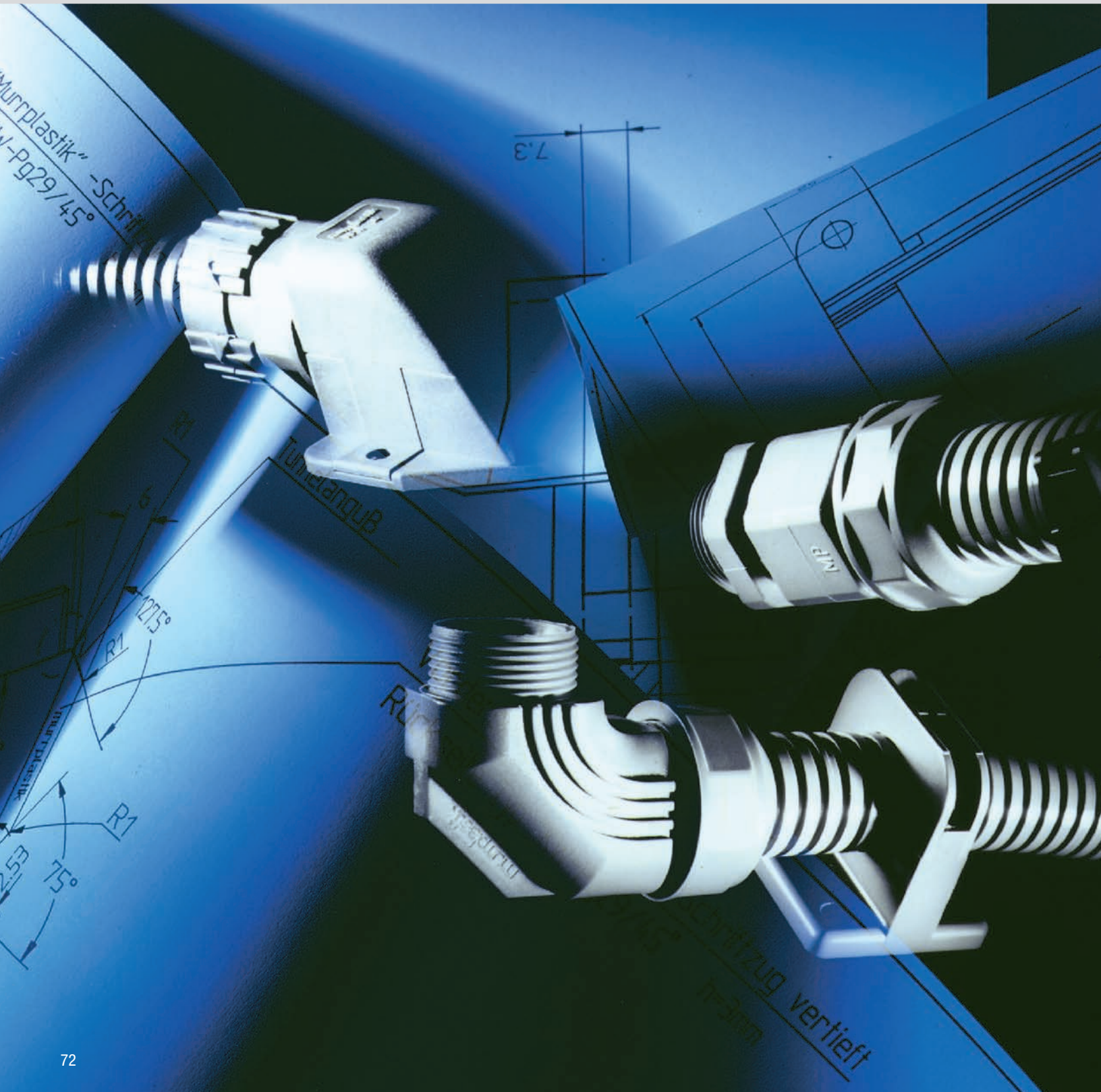


**Conduit fitting**  
**Bulkhead fitting**

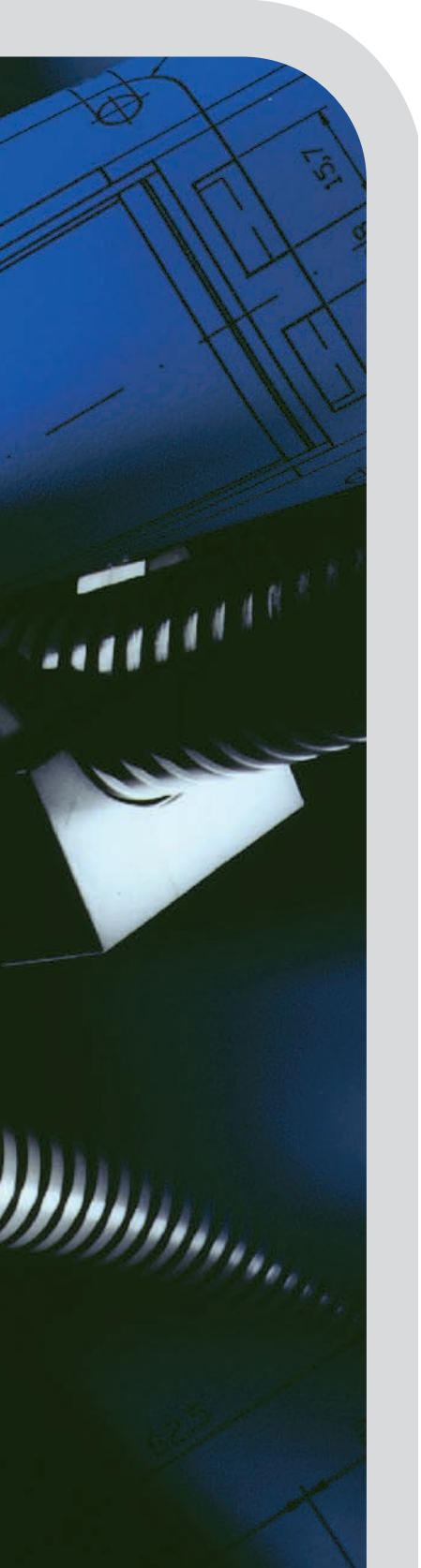




## Conduit and bulkhead fittings







Your cables are bound together with Murrplastik cable protection conduits and are secured against damage and environmental impact occurring to the control cabinet of the machine.

Now it is imperative that the safety chain is inserted into the housing very carefully.

This task is easily fulfilled by Murrplastik conduit connections and fittings exactly according to your requirements.

Our extensive range includes everything from simple conduit connections with protection class IP 54 through to highly dense, tear-out proof conduit fittings of class IP 68 or IP 69K.

The compatibility of conduits, fittings and flange connections emphasises the system idea, as with all Murrplastik product ranges.

Well-thought out design and quick, simple or even tool-less assembly are the characteristics of our products.

- No loose piece that can get lost, everything is pre-assembled and ready to install.
- Integrated vibration protection in the form of a latch prevents unintended loosening of the cap nut and increase process safety during assembly and when in use.
- Burrless and edgeless inner bends enable efficient work even with 90° angled fittings.
- Simple locking mechanisms make retrofits and/or maintenance to existing systems easy.
- Connection threads made of metal and plastic fitted with metric, Pg or NPT threads, greatly increase the application of your products all over the world.

**Our conduit fitting system gives you great advantages: less working time and more process safety through the use of innovative Murrplastik products**



## Conduit and bulkhead fittings product range





**Conduit connection bulkhead fittings**

90° conduit connection. The large opening allows easy insertion of pre-assembled conduits.

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**m-jumbo conduit fittings**

Conduit connections for large cable protection conduits NW 70 and NW 95. The cable protection conduit remains rotatable in the fitting.

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**m-top conduit fitting**

Protection class IP 68. The variety of types with different thread types ensures almost any use.

Page 84



**m-tec conduit fitting**

Protection class IP 65. A conduit fitting in various models with different thread types.

Page 110



**m-fix conduit fittings**

Protection class IP 54/65. m-fix is a quick-plug-in fitting. Simply stick in the conduit. That's all there is to it!

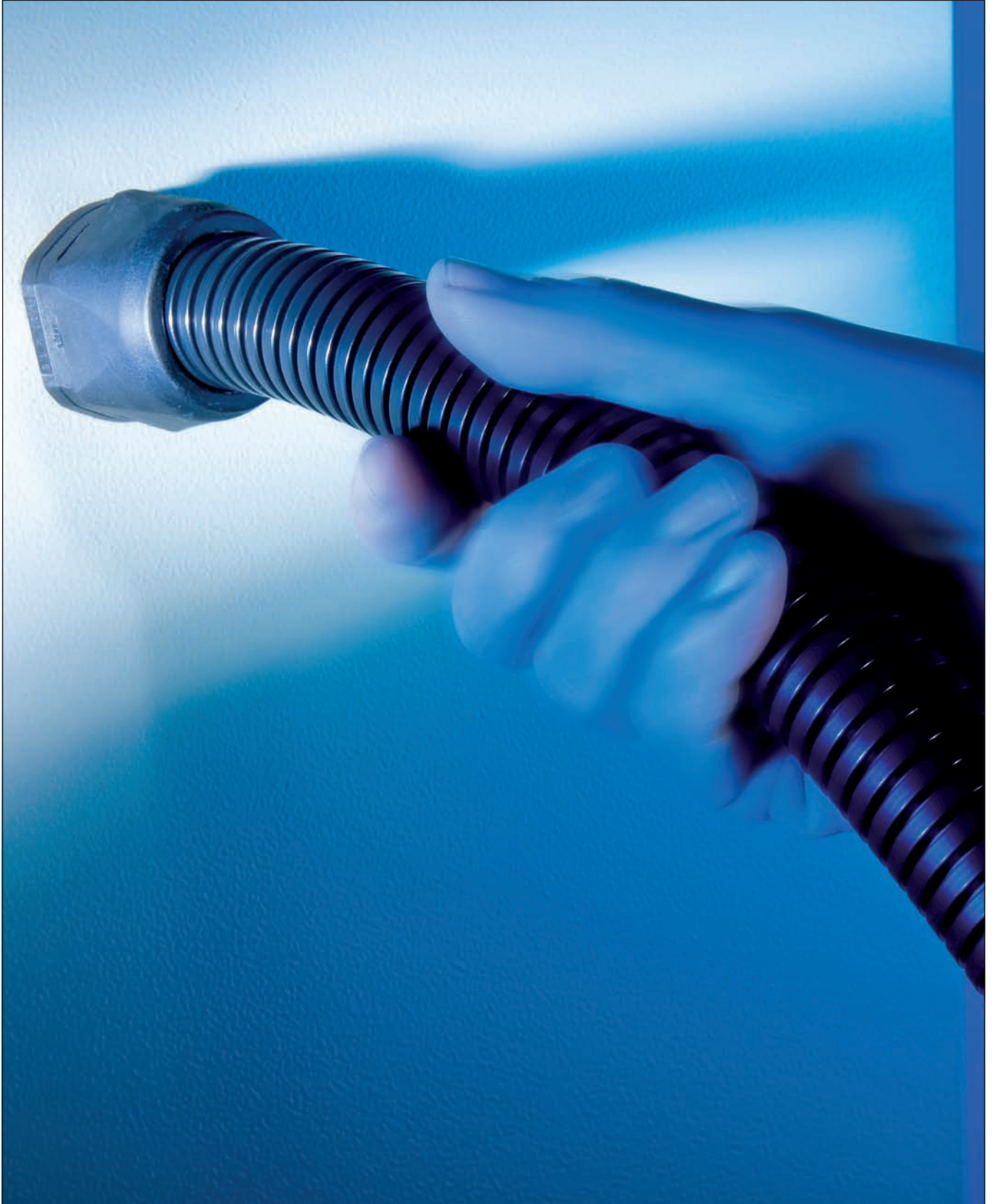
Page 130



**Special fitting**

Special fitting for the connection of standard and special conduits.

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## m-top conduit fitting





## Advantages



## High protection class

The m-top family consists of conduit fittings manufactured from high-grade polyamide. Their design means that the fittings offer a high protection rating of IP 68 or IP 69K.

The fittings are completely pre-assembled and no additional parts such as cap nuts, gaskets, conduit seals etc. need to be fitted. This ensures the greatest possible process reliability in assembly.

The cable protection conduit can be assembled quickly and easily by simply inserting the conduit and turning the cap nut. The nut engages in the body, preventing unintentional opening. As the inside bends in the fittings have no edges, the introduction of cables through 45° and 90° fittings does not present any problem.



- ✓ High protection class
- ✓ One-piece fitting
- ✓ Quick assembly



## Large variety

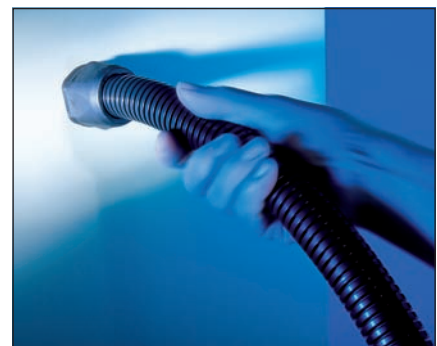
Thanks to its large range, the m-top family of fittings has the perfect solution for practically every requirement.

Thanks to its construction, the fitting has a very high tear-out strength.

The fitting is available in straight versions and 45° and 90° angled versions. The connection thread is available in metal and plastic and in metric, Pg or NPT versions.

Due to its listing with the Underwriters Laboratories (UL) and the Canadian Standards Association (CSA), the fitting m-top has been approved for the north American market.

In addition to this they are also approved by the German, British and French national railway companies.



- ✓ Huge variety of types
- ✓ High tear-out strength
- ✓ Optimal process safety



## m-top series product range



### EMV version

		<b>Type CVG EMV (conduit and cable fitting; metal thread)</b> Metric ISO thread (M) EMV version	Page 90
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		<b>Type CVW 45° EMV (conduit and cable fitting; metal thread)</b> Metric ISO thread (M) EMV version	Page 96
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		<b>Type CVW 90° EMV (conduit and cable fitting; metal thread)</b> Metric ISO thread (M) EMV version	Page 103
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## Metal thread


## Plastic thread



**Type VG (metal thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


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**Type VG (plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


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**Type VW 45° (metal thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


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**Type VW 45° (plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


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**Type VW 90° (metal thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


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**Type VW 90° (plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


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**Type DVW 45° (360° rotatable conduit fitting; metal thread)**

Metric ISO thread (M)


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**Type CVW 45° (conduit and cable fitting; plastic thread)**

Metric ISO thread (M)


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**Type DVW 90° (360° rotatable conduit fitting; metal thread)**

Metric ISO thread (M)


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**Type CVW 90° (conduit and cable fitting; plastic thread)**

Metric ISO thread (M)


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**Type IVG (metal internal thread)**

Metric ISO thread (M)

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**Type CVG (conduit and cable fitting; plastic thread)**

Metric ISO thread (M)

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## Combination options

	Conduit fittings up to conduit size M50 / Pg48								
	VG	IVG	CVG	VW 45°	CWV 45°	DWV 45°	VW 90°	CWV 90°	DWV 90°
EF	✗	✗	✗	✗	✗	✗	✗	✗	✗
EW	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWf	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWS	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-G	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿
EW-HY	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-EX	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAB	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAE	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAL	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAP	✗	✗	✗	✗	✗	✗	✗	✗	✗
EW-PP	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-PRF	✓	✓	✓	✓	✓	✓	✓	✓	✓
EW-TEF	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PP	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE	✓	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE-LS	✓	✓	✓	✓	✓	✓	✓	✓	✓
GF	✗	✗	✗	✗	✗	✗	✗	✗	✗

✓ combinable

✗ not combinable

⦿ combinable to an extent (remove sheathing)

## Material data

	Material			Temperature area [°F]			Protection rating on corrugated conduit	Protection class on cable with combined conduit and cable fittings	Fire specifications UL94	UL File number E148958	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
	Fitting	Connection thread	Moulded seal	Min.	Max.	Short periods											
VG-K	Polyamide PA6	Polyamide	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
VG-M	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
IVG	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
CVG-K	Polyamide PA6	Polyamide	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)	IP 68	V0	✓	✓	✓	✓	✓	✓	✓	✓
CVG-M	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)	IP 68	V0	✓	✓	✓	✓	✓	✓	✓	✓
VW 45°-K	Polyamide PA6	Polyamide	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
VW 45°-M	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
CVW 45°-K	Polyamide PA6	Polyamide	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)	IP 68	V0	✓	✓	✓	✓	✓	✓	✓	✓
CVW 45°-M	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)	IP 68	V0	✓	✓	✓	✓	✓	✓	✓	✓
DVW 45°	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
VW 90°-K	Polyamide PA6	Polyamide	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
VW 90°-M	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓
CVW 90°-K	Polyamide PA6	Polyamide	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)	IP 68	V0	✓	✓	✓	✓	✓	✓	✓	✓
CVW 90°-M	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)	IP 68	V0	✓	✓	✓	✓	✓	✓	✓	✓
DVW 90°	Polyamide PA6	Brass nickel-plated	TPE	-40	230	284	IP 68 up to 6 bar (IP 69K)		V0	✓	✓	✓	✓	✓	✓	✓	✓



## Type VG (plastic thread)

RoHS compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



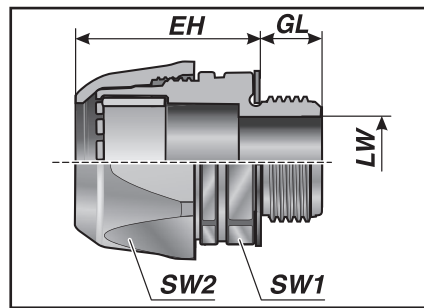
VO



IP 68 to 6 bar (IP 69K)

Straight conduit fitting with plastic thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



VG

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2 inch (mm)	Pack qty.
<b>Metric plastic thread</b>									
VG M12-K	83511052	black	M12x1.5	M12/P9	0.83 (21.00)	0.47 (12.00)	0.28 (7.20)	0.79/0.79 (20/20)	50
VG M16-K	83511054	black	M16x1.5	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG M20-K	83511056	black	M20x1.5	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG M25-K	83511058	black	M25x1.5	M25/P21	1.46 (37.00)	0.51 (13.00)	0.74 (18.70)	0.79/0.79 (41/41)	50
VG M32-K	83511060	black	M32x1.5	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG M40-K **	83511062	black	M40x1.5	M40/P36	2.09 (53.00)	0.67 (17.00)	1.30 (33.00)	0.79/0.79 (60/60)	25
VG M50-K	83511064	black	M50x1.5	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
<b>Pg plastic thread</b>									
VG P9-K	83511452	black	Pg 9	M12/P9	0.83 (21.00)	0.47 (12.00)	0.28 (7.20)	0.79/0.79 (20/20)	50
VG P11-K	83511454	black	Pg 11	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG P16-K	83511456	black	Pg 16	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG P21-K	83511458	black	Pg 21	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG P29-K	83511460	black	Pg 29	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG P36-K **	83511462	black	Pg 36	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG P48-K	83511464	black	Pg 48	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10

## Type VG (plastic thread)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2 inch (mm)	Pack qty.
VG P9-K	83511412	grey	Pg 9	M12/P9	0.83 (21.00)	0.47 (12.00)	0.28 (7.20)	0.79/0.79 (20/20)	50
VG P11-K	83511414	grey	Pg 11	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG P16-K	83511416	grey	Pg 16	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG P21-K	83511418	grey	Pg 21	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG P29-K	83511420	grey	Pg 29	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG P36-K **	83511422	grey	Pg 36	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG P48-K	83511424	grey	Pg 48	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
NPT plastic thread									
VG N 3/8"-K	83511850	black	3/8"	M16/P11	1.06 (27.00)	0.51 (13.00)	0.42 (10.60)	0.79/0.79 (25/25)	50
VG N 1/2"-K	83511852	black	1/2"	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG N 3/4"-K	83511854	black	3/4"	M25/P21	1.46 (37.00)	0.55 (14.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG N 1"-K	83511856	black	1"	M32/P29	1.81 (46.00)	0.59 (15.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG N 1 1/4"-K **	83511858	black	1 1/4"	M40/P36	2.09 (53.00)	0.71 (18.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG N 2"-K	83511860	black	2"	M50/P48	2.36 (60.00)	0.71 (18.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
VG N 3/8"-K	83511810	grey	3/8"	M16/P11	1.06 (27.00)	0.51 (13.00)	0.42 (10.60)	0.79/0.79 (25/25)	50
VG N 1/2"-K	83511812	grey	1/2"	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG N 3/4"-K	83511814	grey	3/4"	M25/P21	1.46 (37.00)	0.55 (14.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG N 1"-K	83511816	grey	1"	M32/P29	1.81 (46.00)	0.59 (15.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG N 1 1/4"-K **	83511818	grey	1 1/4"	M40/P36	2.09 (53.00)	0.71 (18.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG N 2"-K	83511820	grey	2"	M50/P48	2.36 (60.00)	0.71 (18.00)	1.62 (41.20)	0.79/0.79 (75/75)	10

\*\* CSA authorization

IP68



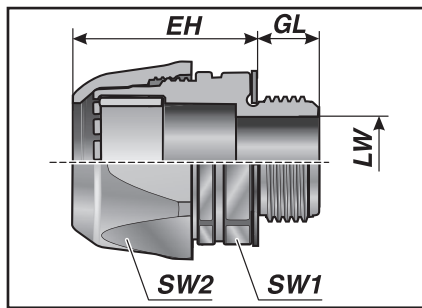


## Type VG (metal thread) RoHS compliant

IP68

- 40 to 230 °F  
transient 284 °F
- Mod. polyamide  
Brass, nickel-plated
- VO
- IP 68 to 6 bar (IP 69K)

- Straight conduit fitting with metal thread.
- Insert conduit  $\square$  screw upper part tight → ready
  - Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
  - Resistant to vibration due to lockable cap nut
  - Clamping along entire circumference ensuring maximum tear-out strength
  - High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
  - Simple check that the conduit is assembled correctly



VG

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2 inch (mm)	Pack qty.
------	-----------	-------	-------------------	-----------------------	--------------	--------------	--------------	------------------	-----------

Metric metal thread									
VG M12-M	83511252	black	M12x1.5	M12/P9	0.83 (21.00)	0.47 (12.00)	0.28 (7.20)	0.79/0.79 (20/20)	50
VG M16x1.5/09-M	83511253	black	M16x1.5	M12/P9	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG M16-M	83511254	black	M16x1.5	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG M20x1.5/11-M	83511255	black	M20x1.5	M16/P11	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG M20-M	83511256	black	M20x1.5	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG M25x1.5/16-M	83511257	black	M25x1.5	M20/P16	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG M25-M	83511258	black	M25x1.5	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG M32x1.5/21-M	83511259	black	M32x1.5	M25/P21	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG M32-M	83511260	black	M32x1.5	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG M40x1.5/P29-M	83511261	black	M40x1.5	M32/P29	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG M40-M **	83511262	black	M40x1.5	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG M50x1.5/36-M	83511263	black	M50x1.5	M40/P36	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
VG M50-M	83511264	black	M50x1.5	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
VG M63-M	83511266	black	M63x1.5	M50/P48	2.99 (76.00)	0.67 (17.00)	1.98 (50.30)	0.79/0.79 (75/75)	10
VG M12-M	83511212	grey	M12x1.5	M12/P9	0.83 (21.00)	0.47 (12.00)	0.28 (7.20)	0.79/0.79 (20/20)	50
VG M16-M	83511214	grey	M16x1.5	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG M20-M	83511216	grey	M20x1.5	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG M25-M	83511218	grey	M25x1.5	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG M32-M	83511220	grey	M32x1.5	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG M40-M **	83511222	grey	M40x1.5	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG M50-M	83511224	grey	M50x1.5	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
VG M63-M	83511226	grey	M63x1.5	M50/P48	2.99 (76.00)	0.67 (17.00)	1.98 (50.30)	0.79/0.79 (75/75)	10



## Type VG (metal thread)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2 inch (mm)	Pack qty.
Pg metal thread									
VG P9-M	83511652	black	Pg 9	M12/P9	0.83 (21.00)	0.47 (12.00)	0.28 (7.20)	0.79/0.79 (20/20)	50
VG P11-M	83511654	black	Pg 11	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG P16-M	83511656	black	Pg 16	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG P21-M	83511658	black	Pg 21	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG P29-M	83511660	black	Pg 29	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG P36-M **	83511662	black	Pg 36	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG P48-M	83511664	black	Pg 48	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
VG P9-M	83511612	grey	Pg 9	M12/P9	0.83 (21.00)	0.47 (12.00)	0.28 (7.20)	0.79/0.79 (20/20)	50
VG P11-M	83511614	grey	Pg 11	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG P16-M	83511616	grey	Pg 16	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG P21-M	83511618	grey	Pg 21	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG P29-M	83511620	grey	Pg 29	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG P36-M **	83511622	grey	Pg 36	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG P48-M	83511624	grey	Pg 48	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
NPT metal thread									
VG N 3/8"-M	83512050	black	3/8"	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG N 1/2"-M	83512052	black	1/2"	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG N 3/4"-M	83512054	black	3/4"	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG N 1"-M	83512056	black	1"	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG N 1 1/4"-M **	83512058	black	1 1/4"	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG N 2"-M	83512060	black	2"	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10
VG N 3/8"-M	83512010	grey	3/8"	M16/P11	1.06 (27.00)	0.47 (12.00)	0.41 (10.50)	0.79/0.79 (25/25)	50
VG N 1/2"-M	83512012	grey	1/2"	M20/P16	1.38 (35.00)	0.51 (13.00)	0.57 (14.60)	0.79/0.79 (33/33)	50
VG N 3/4"-M	83512014	grey	3/4"	M25/P21	1.46 (37.00)	0.51 (13.00)	0.75 (19.00)	0.79/0.79 (41/41)	50
VG N 1"-M	83512016	grey	1"	M32/P29	1.81 (46.00)	0.55 (14.00)	1.02 (26.00)	0.79/0.79 (50/50)	25
VG N 1 1/4"-M **	83512018	grey	1 1/4"	M40/P36	2.09 (53.00)	0.67 (17.00)	1.32 (33.50)	0.79/0.79 (60/60)	25
VG N 2"-M	83512020	grey	2"	M50/P48	2.36 (60.00)	0.67 (17.00)	1.62 (41.20)	0.79/0.79 (75/75)	10

\*\* CSA authorization

IP68





## Type IVG (metal internal thread)

RoHS compliant

IP68



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
Brass, nickel-plated



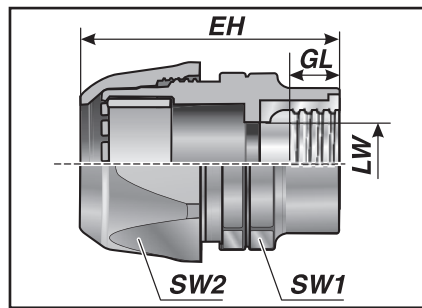
VO



IP 68 to 6 bar (IP 69K)

Straight conduit fitting with metal internal thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



IVG

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2 inch (mm)	Pack qty.
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Metric metal internal thread

IVG M12-M	83571052	black	M12x1.5	M12/P9	1.22 (31.00)	0.31 (8.00)	0.26 (6.50)	0.79/0.79 (20/20)	50
IVG M16-M	83571054	black	M16x1.5	M16/P11	1.46 (37.00)	0.31 (8.00)	0.39 (10.00)	0.79/0.79 (25/25)	50
IVG M20-M	83571056	black	M20x1.5	M20/P16	1.77 (45.00)	0.39 (10.00)	0.55 (14.00)	0.79/0.79 (33/33)	50
IVG M25-M	83571058	black	M25x1.5	M25/P21	1.85 (47.00)	0.39 (10.00)	0.72 (18.30)	0.79/0.79 (41/41)	50
IVG M32-M	83571060	black	M32x1.5	M32/P29	2.20 (56.00)	0.51 (13.00)	0.94 (24.00)	0.79/0.79 (50/50)	25
IVG M40-M **	83571062	black	M40x1.5	M40/P36	2.76 (70.00)	0.55 (14.00)	1.30 (33.00)	0.79/0.79 (60/60)	25
IVG M50-M	83571064	black	M50x1.5	M50/P48	3.15 (80.00)	0.59 (15.00)	1.73 (44.00)	0.79/0.79 (75/75)	10

\*\* CSA authorization





## Type CVG (conduit and cable fitting; plastic thread)

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



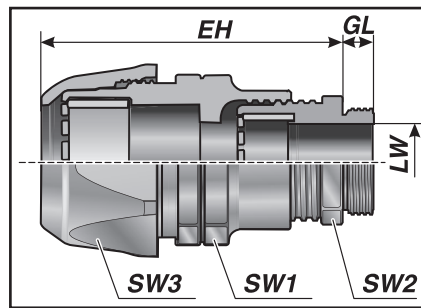
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IP 68 to 6 bar (IP 69K)  
with additional O-ring, type OR-NBR

Combined conduit and cable fitting, straight, with plastic thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



CVG

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2/3 inch	Pack qty.
Metric plastic thread									
CVG M12-K	83531050	black	M12x1.5	M12/P9	1.54 (39.00)	0.31 (8.00)	0.12–0.26 (3.0–6.5)	0.79/0.59/0.79	50
CVG M16-K	83531052	black	M16x1.5	M16/P11	1.77 (45.00)	0.31 (8.00)	0.16–0.31 (4.0–8.0)	0.98/0.87/0.98	50
CVG M20-K	83531056	black	M20x1.5	M20/P16	2.17 (55.00)	0.35 (9.00)	0.24–0.47 (6.0–12.0)	1.30/0.94/1.30	50
CVG M25-K	83531058	black	M25x1.5	M25/P21	2.24 (57.00)	0.43 (11.00)	0.51–0.71 (13.0–18.0)	1.57/1.30/1.65	50
CVG M32-K	83531060	black	M32x1.5	M32/P29	2.72 (69.00)	0.43 (11.00)	0.71–0.98 (18.0–25.0)	1.97/1.65/1.97	25
CVG M40-K **	83531062	black	M40x1.5	M40/P36	3.31 (84.00)	0.51 (13.00)	0.87–1.26 (22.0–32.0)	2.36/2.09/2.36	25
CVG M63-K	83531064	black	M63x1.5	M50/P48	3.70 (94.00)	0.55 (14.00)	1.46–1.73 (37.0–44.0)	2.87/2.68/2.95	10
** CSA authorization									

IP68





## Type CVG EMV (conduit and cable fitting; metal thread)



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
Brass, nickel-plated



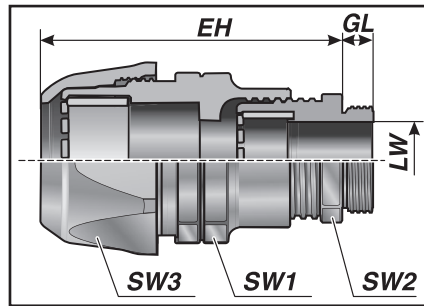
VO



IP 68 to 6 bar (IP 69K)

Combined conduit and cable fitting, straight, with metal thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



CVG EMV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2/3 inch	Pack qty.
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Metric metal thread / EMC version

CVG M12 EMV	83551050	black	M12x1.5	M12/P9	1.54 (39.00)	0.26 (6.50)	0.12–0.26 (3.0–6.5)	0.79/0.55/0.79	50
CVG M16 EMV	83551052	black	M16x1.5	M16/P11	1.77 (45.00)	0.24 (6.00)	0.20–0.39 (5.0–10.0)	0.98/0.79/0.98	50
CVG M20 EMV	83551056	black	M20x1.5	M20/P16	2.17 (55.00)	0.24 (6.00)	0.39–0.55 (10.0–14.0)	1.30/0.94/1.30	50
CVG M25 EMV	83551058	black	M25x1.5	M25/P21	2.24 (57.00)	0.28 (7.00)	0.51–0.71 (13.0–18.0)	1.57/1.18/1.61	50
CVG M32 EMV	83551060	black	M32x1.5	M32/P29	2.72 (69.00)	0.31 (8.00)	0.71–0.98 (18.0–25.0)	1.97/1.57/1.97	25
CVG M40 EMV **	83551062	black	M40x1.5	M40/P36	3.31 (84.00)	0.31 (8.00)	0.87–1.26 (22.0–32.0)	2.36/1.97/2.36	25
CVG M63 EMV	83551064	black	M63x1.5	M50/P48	3.70 (94.00)	0.39 (10.00)	1.46–1.73 (37.0–44.0)	2.95/2.68/2.95	10

Metric metal thread / EMC version with extended thread

CVG/L M12 EMV	83551650	black	M12x1.5	M12/P9	1.54 (39.00)	0.39 (10.00)	0.12–0.26 (3.0–6.5)	0.79/0.55/0.79	50
CVG/L M16 EMV	83551652	black	M16x1.5	M16/P11	1.77 (45.00)	0.39 (10.00)	0.20–0.39 (5.0–10.0)	0.98/0.79/0.98	50
CVG/L M20 EMV	83551656	black	M20x1.5	M20/P16	2.17 (55.00)	0.39 (10.00)	0.39–0.55 (10.0–14.0)	1.30/0.94/1.30	50
CVG/L M25 EMV	83551658	black	M25x1.5	M25/P21	2.24 (57.00)	0.47 (12.00)	0.51–0.71 (13.0–18.0)	1.57/1.18/1.61	50
CVG/L M32 EMV	83551660	black	M32x1.5	M32/P29	2.72 (69.00)	0.47 (12.00)	0.71–0.98 (18.0–25.0)	1.97/1.57/1.97	25
CVG/L M40 EMV **	83551662	black	M40x1.5	M40/P36	3.31 (84.00)	0.59 (15.00)	0.87–1.26 (22.0–32.0)	2.36/1.97/2.36	25

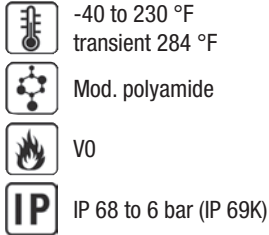
\*\* CSA authorization

IP68



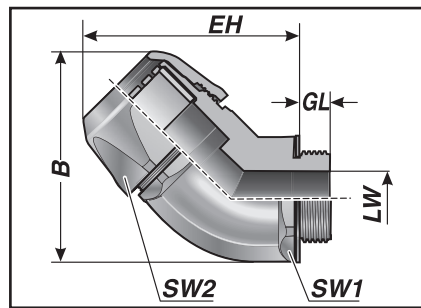
## Type VW 45° (plastic thread)

RoHS  
compliant



Angled conduit fitting with plastic thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



VW 45°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
Metric plastic thread										
VW 45 M12-K	83513052	black	M12x1.5	M12/P9	1.50 (38.00)	0.47 (12.00)	0.28 (7.20)	1.42 (36.00)	0.83/0.83 (21/21)	50
VW 45 M16-K	83513054	black	M16x1.5	M16/P11	1.77 (45.00)	0.47 (12.00)	0.41 (10.50)	1.69 (43.00)	1.06/1.06 (27/27)	50
VW 45 M20-K	83513056	black	M20x1.5	M20/P16	2.20 (56.00)	0.51 (13.00)	0.57 (14.60)	2.05 (52.00)	1.34/1.34 (34/34)	50
VW 45 M25-K	83513058	black	M25x1.5	M25/P21	2.56 (65.00)	0.51 (13.00)	0.74 (18.70)	2.56 (65.00)	0.79/0.79 (41/41)	25
VW 45 M32-K	83513060	black	M32x1.5	M32/P29	3.03 (77.00)	0.55 (14.00)	1.00 (25.50)	3.11 (79.00)	0.79/0.79 (50/50)	25
VW 45 M40-K**	83513062	black	M40x1.5	M40/P36	3.54 (90.00)	0.67 (17.00)	1.30 (33.00)	3.74 (95.00)	0.79/0.79 (60/60)	25
VW 45 M50-K	83513064	black	M50x1.5	M50/P48	4.13 (105.00)	0.67 (17.00)	1.65 (42.00)	4.53 (115.00)	0.79/0.79 (75/75)	10
Pg plastic thread										
VW 45 M12-K	83513012	grey	M12x1.5	M12/P9	1.50 (38.00)	0.47 (12.00)	0.28 (7.20)	1.42 (36.00)	0.83/0.83 (21/21)	50
VW 45 M16-K	83513014	grey	M16x1.5	M16/P11	1.77 (45.00)	0.47 (12.00)	0.41 (10.50)	1.69 (43.00)	1.06/1.06 (27/27)	50
VW 45 M20-K	83513016	grey	M20x1.5	M20/P16	2.20 (56.00)	0.51 (13.00)	0.57 (14.60)	2.05 (52.00)	1.34/1.34 (34/34)	50
VW 45 M25-K	83513018	grey	M25x1.5	M25/P21	2.56 (65.00)	0.51 (13.00)	0.74 (18.70)	2.56 (65.00)	0.79/0.79 (41/41)	25
VW 45 M32-K	83513020	grey	M32x1.5	M32/P29	3.03 (77.00)	0.55 (14.00)	1.00 (25.50)	3.11 (79.00)	0.79/0.79 (50/50)	25
VW 45 M40-K**	83513022	grey	M40x1.5	M40/P36	3.54 (90.00)	0.67 (17.00)	1.30 (33.00)	3.74 (95.00)	0.79/0.79 (60/60)	25
VW 45 M50-K	83513024	grey	M50x1.5	M50/P48	4.13 (105.00)	0.67 (17.00)	1.65 (42.00)	4.53 (115.00)	0.79/0.79 (75/75)	10
VW 45 P9-K	83513452	black	Pg 9	M12/P9	1.50 (38.00)	0.47 (12.00)	0.28 (7.20)	1.42 (36.00)	0.83/0.83 (21/21)	50
VW 45 P11-K	83513454	black	Pg 11	M16/P11	1.77 (45.00)	0.47 (12.00)	0.41 (10.50)	1.69 (43.00)	1.06/1.06 (27/27)	50
VW 45 P16-K	83513456	black	Pg 16	M20/P16	2.20 (56.00)	0.51 (13.00)	0.57 (14.60)	2.05 (52.00)	1.34/1.34 (34/34)	50
VW 45 P21-K	83513458	black	Pg 21	M25/P21	2.56 (65.00)	0.51 (13.00)	0.74 (18.70)	2.56 (65.00)	0.79/0.79 (41/41)	25
VW 45 P29-K	83513460	black	Pg 29	M32/P29	3.03 (77.00)	0.55 (14.00)	1.00 (25.50)	3.11 (79.00)	0.79/0.79 (50/50)	25
VW 45 P36-K**	83513462	black	Pg 36	M40/P36	3.54 (90.00)	0.67 (17.00)	1.30 (33.00)	3.74 (95.00)	0.79/0.79 (60/60)	25
VW 45 P48-K	83513464	black	Pg 48	M50/P48	4.13 (105.00)	0.67 (17.00)	1.65 (42.00)	4.53 (115.00)	0.79/0.79 (75/75)	10

IP68





## Type VW 45° (plastic thread)

RoHS  
compliant

IP68





Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
VW 45 P9-K	83513412	grey	Pg 9	M12/P9	1.50 (38.0)	0.47 (12.0)	0.28 (7.20)	1.42 (36.0)	0.83/0.83 (21/21)	50
VW 45 P11-K	83513414	grey	Pg 11	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.5)	1.69 (43.0)	1.06/1.06 (27/27)	50
VW 45 P16-K	83513416	grey	Pg 16	M20/P16	2.20 (56.0)	0.51 (13.0)	0.57 (14.6)	2.05 (52.0)	1.34/1.34 (34/34)	50
VW 45 P21-K	83513418	grey	Pg 21	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.7)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 P29-K	83513420	grey	Pg 29	M32/P29	3.03 (77.0)	0.55 (14.0)	1.00 (25.5)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 P36-K **	83513422	grey	Pg 36	M40/P36	3.54 (90.0)	0.67 (17.0)	1.30 (33.0)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 P48-K	83513424	grey	Pg 48	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.0)	4.53 (115.0)	0.79/0.79 (75/75)	10
NPT plastic thread										
VW 45 NPT 3/8"-K	83513850	black	3/8"	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.5)	1.69 (43.0)	0.79/0.79 (25/25)	50
VW 45 NPT 1/2"-K	83513852	black	1/2"	M20/P16	2.20 (56.0)	0.51 (13.0)	0.57 (14.6)	2.05 (52.0)	0.79/0.79 (33/33)	50
VW 45 NPT 3/4"-K	83513854	black	3/4"	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.7)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 NPT 1"-K	83513856	black	1"	M32/P29	3.03 (77.0)	0.55 (14.0)	1.02 (26.0)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 NPT 1 1/4"-K **	83513858	black	1 1/4"	M40/P36	3.54 (90.0)	0.67 (17.0)	1.30 (33.0)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 NPT 2"-K	83513860	black	2"	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.0)	4.53 (115.0)	0.79/0.79 (75/75)	10
VW 45 NPT 3/8"-K	83513810	grey	3/8"	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.5)	1.69 (43.0)	0.79/0.79 (25/25)	50
VW 45 NPT 1/2"-K	83513812	grey	1/2"	M20/P16	2.20 (56.0)	0.51 (13.0)	0.57 (14.6)	2.05 (52.0)	0.79/0.79 (33/33)	50
VW 45 NPT 3/4"-K	83513814	grey	3/4"	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.7)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 NPT 1"-K	83513816	grey	1"	M32/P29	3.03 (77.0)	0.55 (14.0)	1.00 (25.5)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 NPT 1 1/4"-K **	83513818	grey	1 1/4"	M40/P36	3.54 (90.0)	0.67 (17.0)	1.30 (33.0)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 NPT 2"-K	83513820	grey	2"	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.0)	4.53 (115.0)	0.79/0.79 (75/75)	10

\*\* CSA authorization



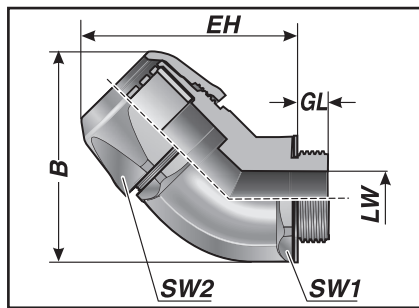
## Type VW 45° (metal thread)

RoHS  
compliant

-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide  
Brass, nickel-plated
-  V0
-  IP 68 to 6 bar (IP 69K)

Angled conduit fitting with metal thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



VW 45°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
Metric metal thread										
VW 45 M12-M	83513252	black	M12x1.5	M12/P9	1.50 (38.0)	0.47 (12.0)	0.28 (7.20)	1.42 (36.0)	0.83/0.83 (21/21)	50
VW 45 M16-M	83513254	black	M16x1.5	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.50)	1.69 (43.0)	1.06/1.06 (27/27)	50
VW 45 M20-M	83513256	black	M20x1.5	M20/P16	2.20 (56.0)	0.51 (13.0)	0.57 (14.60)	2.05 (52.0)	1.34/1.34 (34/34)	50
VW 45 M25-M	83513258	black	M25x1.5	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.70)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 M32-M	83513260	black	M32x1.5	M32/P29	3.03 (77.0)	0.55 (14.0)	1.00 (25.50)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 M40-M**	83513262	black	M40x1.5	M40/P36	3.54 (90.0)	0.67 (17.0)	1.30 (33.00)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 M50-M	83513264	black	M50x1.5	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.00)	4.53 (115.0)	0.79/0.79 (75/75)	10
Pg metal thread										
VW 45 P9-M	83513652	black	Pg 9	M12/P9	1.50 (38.0)	0.47 (12.0)	0.28 (7.20)	1.42 (36.0)	0.83/0.83 (21/21)	50
VW 45 P11-M	83513654	black	Pg 11	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.50)	1.69 (43.0)	1.06/1.06 (27/27)	50
VW 45 P16-M	83513656	black	Pg 16	M20/P16	2.20 (56.0)	0.51 (13.0)	0.58 (14.70)	2.05 (52.0)	1.34/1.34 (34/34)	50
VW 45 P21-M	83513658	black	Pg 21	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.70)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 P29-M	83513660	black	Pg 29	M32/P29	3.03 (77.0)	0.55 (14.0)	1.00 (25.50)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 P36-M**	83513662	black	Pg 36	M40/P36	3.54 (90.0)	0.67 (17.0)	1.30 (33.00)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 P48-M	83513664	black	Pg 48	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.00)	4.53 (115.0)	0.79/0.79 (75/75)	10

IP68





## Type VW 45° (metal thread)

RoHS  
compliant

IP68

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
VW 45 P9-M	83513612	grey	Pg 9	M12/P9	1.50 (38.0)	0.47 (12.0)	0.28 (7.20)	1.42 (36.0)	0.83/0.83 (21/21)	50
VW 45 P11-M	83513614	grey	Pg 11	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.50)	1.69 (43.0)	1.06/1.06 (27/27)	50
VW 45 P16-M	83513616	grey	Pg 16	M20/P16	2.20 (56.0)	0.51 (13.0)	0.58 (14.70)	2.05 (52.0)	1.34/1.34 (34/34)	50
VW 45 P21-M	83513618	grey	Pg 21	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.70)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 P29-M	83513620	grey	Pg 29	M32/P29	3.03 (77.0)	0.55 (14.0)	1.00 (25.50)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 P36-M **	83513622	grey	Pg 36	M40/P36	3.54 (90.0)	0.67 (17.0)	1.3 (33.00)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 P48-M	83513624	grey	Pg 48	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.00)	4.53 (115.0)	0.79/0.79 (75/75)	10
NPT metal thread										
VW 45 NPT 3/8"-M	83514050	black	3/8"	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.50)	1.69 (43.0)	0.94/0.94 (24/24)	50
VW 45 NPT 1/2"-M	83514052	black	1/2"	M20/P16	2.20 (56.0)	0.51 (13.0)	0.57 (14.60)	2.05 (52.0)	0.79/0.79 (33/33)	50
VW 45 NPT 3/4"-M	83514054	black	3/4"	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.70)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 NPT 1"-M	83514056	black	1"	M32/P29	3.03 (77.0)	0.55 (14.0)	1.00 (25.50)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 NPT 1 1/4"-M **	83514058	black	1 1/4"	M40/P36	3.54 (90.0)	0.67 (17.0)	1.30 (33.00)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 NPT 2"-M	83514060	black	2"	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.00)	4.53 (115.0)	0.79/0.79 (75/75)	10
VW 45 NPT 3/8"-M	83514010	grey	3/8"	M16/P11	1.77 (45.0)	0.47 (12.0)	0.41 (10.50)	1.69 (43.0)	0.94/0.94 (24/24)	50
VW 45 NPT 1/2"-M	83514012	grey	1/2"	M20/P16	2.20 (56.0)	0.51 (13.0)	0.57 (14.60)	2.05 (52.0)	0.79/0.79 (33/33)	50
VW 45 NPT 3/4"-M	83514014	grey	3/4"	M25/P21	2.56 (65.0)	0.51 (13.0)	0.74 (18.70)	2.56 (65.0)	0.79/0.79 (41/41)	25
VW 45 NPT 1"-M	83514016	grey	1"	M32/P29	3.03 (77.0)	0.55 (14.0)	1.00 (25.50)	3.11 (79.0)	0.79/0.79 (50/50)	25
VW 45 NPT 1 1/4"-M **	83514018	grey	1 1/4"	M40/P36	3.54 (90.0)	0.67 (17.0)	1.30 (33.00)	3.74 (95.0)	0.79/0.79 (60/60)	25
VW 45 NPT 2"-M	83514020	grey	2"	M50/P48	4.13 (105.0)	0.67 (17.0)	1.65 (42.00)	4.53 (115.0)	0.79/0.79 (75/75)	10

\*\* CSA authorization



## Type CVW 45° (conduit and cable fitting; plastic thread)

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



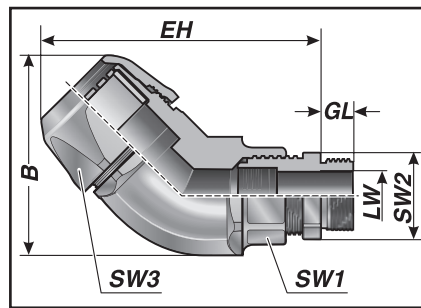
V0



IP 68 to 6 bar (IP 69K)  
with additional O-ring, type OR-NBR

Angled conduit and cable fitting with plastic thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



CVW 45°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2/3 inch	Pack qty.
Metric plastic thread										
CVW 45 M12-K	83531250	black	M12x1.5	M12/P9	2.17 (55.0)	0.31 (8.0)	0.12–0.26 (3.0–6.5)	1.42 (36.0)	0.79/0.59/0.79	50
CVW 45 M16-K	83531252	black	M16x1.5	M16/P11	2.48 (63.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	1.69 (43.0)	0.94/0.87/0.94	50
CVW 45 M20-K	83531256	black	M20x1.5	M20/P16	3.03 (77.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	2.05 (52.0)	1.30/0.94/1.30	50
CVW 45 M25-K	83531258	black	M25x1.5	M25/P21	3.43 (87.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	2.56 (65.0)	1.61/1.30/1.61	25
CVW 45 M32-K	83531260	black	M32x1.5	M32/P29	4.02 (102.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	3.11 (79.0)	1.97/1.65/1.97	25
CVW 45 M40-K **	83531262	black	M40x1.5	M40/P36	4.84 (123.0)	0.51 (13.0)	0.87–1.26 (22.0–32.0)	3.74 (95.0)	2.36/2.09/2.36	25
CVW 45 M63-K	83531264	black	M63x1.5	M50/P48	5.43 (138.0)	0.55 (14.0)	1.46–1.73 (37.0–44.0)	4.53 (115.0)	2.95/2.68/2.95	10

\*\* CSA authorization

IP68





## Type CVW 45° EMV (conduit and cable fitting; metal thread)

RoHS compliant

IP68



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
Brass, nickel-plated



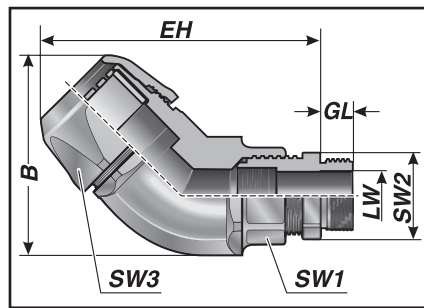
V0



IP 68 to 6 bar (IP 69K)

Angled conduit and cable fitting with metal thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



CVW 45° EMV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2/3 inch	Pack qty.
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Metric metal thread / EMC version

CVW 45 M12 EMV	83551250	black	M12x1.5	M12/P9	2.17 (55.0)	0.26 (6.50)	0.12–0.26 (3.0–6.5)	1.42 (36.0)	0.79/0.55/0.79	50
CVW 45 M16 EMV	83551252	black	M16x1.5	M16/P11	2.48 (63.0)	0.24 (6.00)	0.20–0.39 (5.0–10.0)	1.42 (36.0)	1.06/0.79/1.06	50
CVW 45 M20 EMV	83551256	black	M20x1.5	M20/P16	3.03 (77.0)	0.24 (6.00)	0.39–0.55 (10.0–14.0)	1.69 (43.0)	1.34/0.79/1.30	50
CVW 45 M25 EMV	83551258	black	M25x1.5	M25/P21	3.43 (87.0)	0.28 (7.00)	0.51–0.71 (13.0–18.0)	1.69 (43.0)	1.61/1.18/1.61	25
CVW 45 M32 EMV	83551260	black	M32x1.5	M32/P29	4.02 (102.0)	0.31 (8.00)	0.71–0.98 (18.0–25.0)	2.05 (52.0)	1.97/1.57/1.97	25
CVW 45 M40 EMV **	83551262	black	M40x1.5	M40/P36	4.84 (123.0)	0.31 (8.00)	0.87–1.26 (22.0–32.0)	2.05 (52.0)	2.36/1.97/2.36	25
CVW 45 M63 EMV	83551264	black	M63x1.5	M50/P48	5.43 (138.0)	0.39 (10.0)	1.46–1.73 (37.0–44.0)	4.65 (118.0)	2.95/2.68/2.95	10





\*\* CSA authorization





## Type DVW 45° (360° rotatable conduit fitting; metal thread)

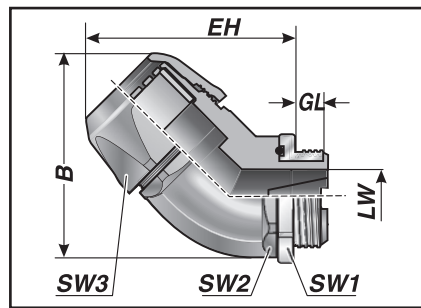
RoHS  
compliant

-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide  
Brass, nickel-plated
-  V0
-  IP 68 to 6 bar (IP 69K)

Rotatable, angled conduit fitting with metal thread. Following installation, the fitting can be turned into a desired position.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly

IP68



DVW 45°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2/3 inch	Pack qty.
Metric metal thread										
DVW 45 M16/P9-M	83493252	black	M16x1.5	M12/Pg09	1.61 (41.00)	0.44 (11.20)	0.28 (7.20)	1.43 (36.40)	0.83/0.83/1.06	50
DVW 45 M20/P11-M	83493254	black	M20x1.5	M16/Pg11	1.93 (49.10)	0.44 (11.20)	0.41 (10.50)	1.76 (44.60)	1.06/1.06/1.06	50
DVW 45 M25/P16-M	83493256	black	M25x1.5	M20/Pg16	2.33 (59.10)	0.48 (12.20)	0.58 (14.70)	2.18 (55.40)	1.34/1.34/1.34	25
DVW 45 M32/P21-M	83493258	black	M32x1.5	M25/Pg21	2.69 (68.20)	0.48 (12.20)	0.74 (18.70)	2.64 (67.10)	1.61/1.61/1.61	25
DVW 45 M40/P29-M	83493260	black	M40x1.5	M32/Pg29	3.16 (80.30)	0.52 (13.20)	1.00 (25.50)	3.12 (79.20)	1.97/1.97/1.97	25
DVW 45 M50/P36-M **	83493262	black	M50x1.5	M40/Pg36	3.63 (92.10)	0.68 (17.20)	1.30 (33.00)	3.69 (93.70)	2.36/2.36/2.36	10
DVW 45 M63/P48-M	83493264	black	M63x1.5	M50/Pg48	4.24 (107.70)	0.69 (17.50)	1.62 (41.20)	4.5 (114.20)	2.95/2.95/2.95	10
** CSA authorization										





## Type VW 90° (plastic thread)

RoHS compliant

IP68



-40 to 230 °F  
transient 284 °F



Mod. polyamide



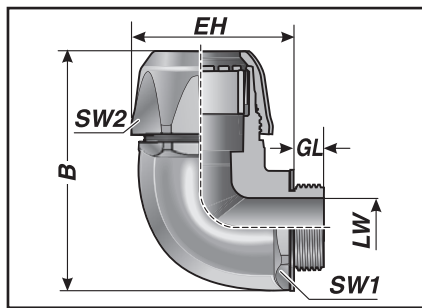
VO



IP 68 to 6 bar (IP 69K)

Angled conduit fitting with plastic thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- Inner bend without edges. This makes insertion of the cable easier.
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



VW 90°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
Metric plastic thread										
VW 90 M12-K	83515052	black	M12x1.5	M12/P9	1.14 (29.00)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 M16-K	83515054	black	M16x1.5	M16/P11	1.38 (35.00)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 M20-K	83515056	black	M20x1.5	M20/P16	1.77 (45.00)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 M25-K	83515058	black	M25x1.5	M25/P21	2.17 (55.00)	0.51 (13.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 M32-K	83515060	black	M32x1.5	M32/P29	2.56 (65.00)	0.59 (15.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 M40-K **	83515062	black	M40x1.5	M40/P36	2.95 (75.00)	0.67 (17.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 M50-K	83515064	black	M50x1.5	M50/P48	3.66 (93.00)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
Pg plastic thread										
VW 90 M12-K	83515012	grey	M12x1.5	M12/P9	1.14 (29.00)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 M16-K	83515014	grey	M16x1.5	M16/P11	1.38 (35.00)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 M20-K	83515016	grey	M20x1.5	M20/P16	1.77 (45.00)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 M25-K	83515018	grey	M25x1.5	M25/P21	2.17 (55.00)	0.51 (13.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 M32-K	83515020	grey	M32x1.5	M32/P29	2.56 (65.00)	0.59 (15.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 M40-K **	83515022	grey	M40x1.5	M40/P36	2.95 (75.00)	0.67 (17.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 M50-K	83515024	grey	M50x1.5	M50/P48	3.66 (93.00)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
VW 90 P9-K	83515452	black	Pg 9	M12/P9	1.14 (29.00)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 P11-K	83515454	black	Pg 11	M16/P11	1.38 (35.00)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 P16-K	83515456	black	Pg 16	M20/P16	1.77 (45.00)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 P21-K	83515458	black	Pg 21	M25/P21	1.73 (44.00)	0.51 (13.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 P29-K	83515460	black	Pg 29	M32/P29	2.56 (65.00)	0.55 (14.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 P36-K **	83515462	black	Pg 36	M40/P36	2.95 (75.00)	0.67 (17.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 P48-K	83515464	black	Pg 48	M50/P48	3.66 (93.00)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10



## Type VW 90° (plastic thread)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
VW 90 P9-K	83515412	grey	Pg 9	M12/P9	1.14 (29.00)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 P11-K	83515414	grey	Pg 11	M16/P11	1.38 (35.00)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 P16-K	83515416	grey	Pg 16	M20/P16	1.77 (45.00)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 P21-K	83515418	grey	Pg 21	M25/P21	1.73 (44.00)	0.51 (13.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 P29-K	83515420	grey	Pg 29	M32/P29	2.56 (65.00)	0.55 (14.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 P36-K **	83515422	grey	Pg 36	M40/P36	2.95 (75.00)	0.67 (17.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 P48-K	83515424	grey	Pg 48	M50/P48	3.66 (93.00)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (60/60)	10
NPT plastic thread										
VW 90 N 3/8"-K	83515850	black	3/8"	M16/P11	1.38 (35.00)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	0.79/0.79 (25/25)	50
VW 90 N 1/2"-K	83515852	black	1/2"	M20/P16	1.77 (45.00)	0.51 (13.0)	0.57 (14.60)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 N 3/4"-K	83515854	black	3/4"	M25/P21	2.17 (55.00)	0.55 (14.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 N 1"-K	83515856	black	1"	M32/P29	2.56 (65.00)	0.55 (14.0)	1.01 (25.60)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 N 1 1/4"-K **	83515858	black	1 1/4"	M40/P36	2.95 (75.00)	0.71 (18.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 N 2"-K	83515860	black	2"	M50/P48	3.66 (93.00)	0.71 (18.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
VW 90 N 3/8"-K	83515810	grey	3/8"	M16/P11	1.38 (35.00)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	0.79/0.79 (25/25)	50
VW 90 N 1/2"-K	83515812	grey	1/2"	M20/P16	1.77 (45.00)	0.51 (13.0)	0.57 (14.60)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 N 3/4"-K	83515814	grey	3/4"	M25/P21	2.17 (55.00)	0.55 (14.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 N 1"-K	83515816	grey	1"	M32/P29	2.56 (65.00)	0.55 (14.0)	1.01 (25.60)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 N 1 1/4"-K **	83515818	grey	1 1/4"	M40/P36	2.95 (75.00)	0.71 (18.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 N 2"-K	83515820	grey	2"	M50/P48	3.66 (93.00)	0.71 (18.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
** CSA authorization										

IP68





## Type VW 90° (metal thread)

RoHS compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
Brass, nickel-plated



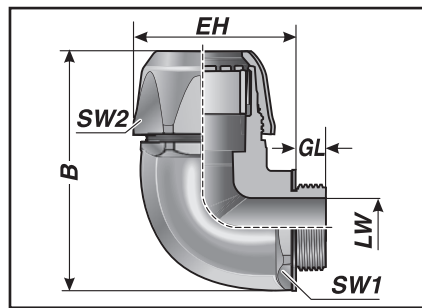
VO



IP 68 to 6 bar (IP 69K)

Angled conduit fitting with metal thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- Inner bend without edges. This makes insertion of the cable easier.
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



VW 90°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
Metric metal thread										
VW 90 M12-M	83515252	black	M12x1.5	M12/P9	1.14 (29.0)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 M16-M	83515254	black	M16x1.5	M16/P11	1.38 (35.0)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 M20-M	83515256	black	M20x1.5	M20/P16	1.77 (45.0)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 M25-M	83515258	black	M25x1.5	M25/P21	2.17 (55.0)	0.51 (13.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 M32-M	83515260	black	M32x1.5	M32/P29	2.56 (65.0)	0.55 (14.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 M40-M**	83515262	black	M40x1.5	M40/P36	2.95 (75.0)	0.67 (17.0)	1.3 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 M50-M	83515264	black	M50x1.5	M50/P48	3.66 (93.0)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
VW 90 M12-M	83515212	grey	M12x1.5	M12/P9	1.14 (29.0)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 M16-M	83515214	grey	M16x1.5	M16/P11	1.38 (35.0)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 M20-M	83515216	grey	M20x1.5	M20/P16	1.77 (45.0)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 M25-M	83515218	grey	M25x1.5	M25/P21	2.17 (55.0)	0.51 (13.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 M32-M	83515220	grey	M32x1.5	M32/P29	2.56 (65.0)	0.55 (14.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 M40-M**	83515222	grey	M40x1.5	M40/P36	2.95 (75.0)	0.67 (17.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 M50-M	83515224	grey	M50x1.5	M50/P48	3.66 (93.0)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
Pg metal thread										
VW 90 P9-M	83515652	black	Pg 9	M12/P9	1.14 (29.0)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 P11-M	83515654	black	Pg 11	M16/P11	1.38 (35.0)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 P16-M	83515656	black	Pg 16	M20/P16	1.77 (45.0)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 P21-M	83515658	black	Pg 21	M25/P21	2.17 (55.0)	0.55 (14.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 P29-M	83515660	black	Pg 29	M32/P29	2.56 (65.0)	0.55 (14.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 P36-M**	83515662	black	Pg 36	M40/P36	2.95 (75.0)	0.67 (17.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 P48-M	83515664	black	Pg 48	M50/P48	3.66 (93.0)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10

## Type VW 90° (metal thread)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2 inch (mm)	Pack qty.
VW 90 P9-M	83515612	grey	Pg 9	M12/P9	1.14 (29.0)	0.47 (12.0)	0.28 (7.20)	1.77 (45.0)	0.83/0.83 (21/21)	50
VW 90 P11-M	83515614	grey	Pg 11	M16/P11	1.38 (35.0)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	1.06/1.06 (27/27)	50
VW 90 P16-M	83515616	grey	Pg 16	M20/P16	1.77 (45.0)	0.51 (13.0)	0.58 (14.70)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 P21-M	83515618	grey	Pg 21	M25/P21	2.17 (55.0)	0.55 (14.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 P29-M	83515620	grey	Pg 29	M32/P29	2.56 (65.0)	0.55 (14.0)	1.00 (25.50)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 P36-M **	83515622	grey	Pg 36	M40/P36	2.95 (75.0)	0.67 (17.0)	1.30 (33.00)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 P48-M	83515624	grey	Pg 48	M50/P48	3.66 (93.0)	0.67 (17.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
NPT metal thread										
VW 90 N 3/8"-M	83516050	black	3/8"	M16/P11	1.38 (35.0)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	0.79/0.79 (25/25)	50
VW 90 N 1/2"-M	83516052	black	1/2"	M20/P16	1.77 (45.0)	0.51 (13.0)	0.57 (14.60)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 N 3/4"-M	83516054	black	3/4"	M25/P21	2.17 (55.0)	0.55 (14.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 N 1"-M	83516056	black	1"	M32/P29	2.56 (65.0)	0.55 (14.0)	1.01 (25.60)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 N 1 1/4"-M **	83516058	black	1 1/4"	M40/P36	2.95 (75.0)	0.71 (18.0)	1.32 (33.50)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 N 2"-M	83516060	black	2"	M50/P48	3.66 (93.0)	0.71 (18.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10
VW 90 N 3/8"-M	83516010	grey	3/8"	M16/P11	1.38 (35.0)	0.47 (12.0)	0.41 (10.50)	2.17 (55.0)	0.79/0.79 (25/25)	50
VW 90 N 1/2"-M	83516012	grey	1/2"	M20/P16	1.77 (45.0)	0.51 (13.0)	0.57 (14.60)	2.64 (67.0)	1.34/1.34 (34/34)	50
VW 90 N 3/4"-M	83516014	grey	3/4"	M25/P21	2.17 (55.0)	0.55 (14.0)	0.74 (18.70)	3.07 (78.0)	0.79/0.79 (41/41)	25
VW 90 N 1"-M	83516016	grey	1"	M32/P29	2.56 (65.0)	0.55 (14.0)	1.01 (25.60)	3.62 (92.0)	0.79/0.79 (50/50)	25
VW 90 N 1 1/4"-M **	83516018	grey	1 1/4"	M40/P36	2.95 (75.0)	0.71 (18.0)	1.32 (33.50)	4.29 (109.0)	0.79/0.79 (60/60)	25
VW 90 N 2"-M	83516020	grey	2"	M50/P48	3.66 (93.0)	0.71 (18.0)	1.65 (42.00)	5.28 (134.0)	0.79/0.79 (75/75)	10

IP68





## Type CVW 90° (conduit and cable fitting; plastic thread)

RoHS compliant

IP68



-40 to 230 °F  
transient 284 °F



Mod. polyamide



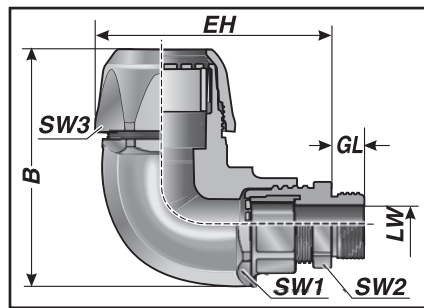
VO



IP 68 to 6 bar (IP 69K)  
with additional O-ring, type OR-NBR

Angled conduit and cable fitting with plastic thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- Inner bend without edges. This makes insertion of the cable easier.
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



CVW 90°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2/3 inch	Pack qty.
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Metric plastic thread





CVW 90 M12	83531450	black	M12x1.5	M12/P9	1.77 (45.0)	0.31 (8.0)	0.12–0.26 (3.0–6.5)	1.73 (44.0)	0.83/0.59/0.79	50
CVW 90 M16	83531452	black	M16x1.5	M16/P11	2.17 (55.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	2.13 (54.0)	1.06/0.87/0.98	50
CVW 90 M20	83531456	black	M20x1.5	M20/P16	2.64 (67.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	2.64 (67.0)	1.30/0.94/1.30	50
CVW 90 M25	83531458	black	M25x1.5	M25/P21	2.99 (76.0)	0.43 (11.0)	0.51–0.75 (13.0–19.0)	3.11 (79.0)	1.61/1.30/1.61	25
CVW 90 M32	83531460	black	M32x1.5	M32/P29	3.70 (94.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	3.62 (92.0)	1.97/1.65/1.97	25
CVW 90 M40 **	83531462	black	M40x1.5	M40/P36	4.41 (112.0)	0.51 (13.0)	0.87–1.26 (22.0–32.0)	4.29 (109.0)	2.36/2.09/2.36	25
CVW 90 M63	83531464	black	M63x1.5	M50/P 48	5.04 (128.0)	0.55 (14.0)	1.46–1.73 (37.0–44.0)	5.35 (136.0)	2.95/2.68/2.95	25

\*\* CSA authorization



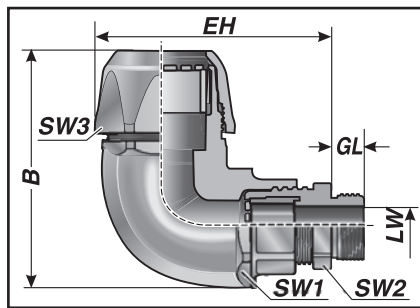
## Type CVW 90° EMV (conduit and cable fitting; metal thread)

RoHS  
compliant

-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide  
Brass, nickel-plated
-  V0
-  IP 68 to 6 bar (IP 69K)

Angled conduit and cable fitting in EMC version with metal thread.

- Insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- Inner bend without edges. This makes insertion of the cable easier.
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



CVW 90° EMV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	B inch (mm)	SW 1/2/3 inch	Pack qty.
Metric metal thread / EMC version										
CVW 90 M12 EMV	83551450	black	M12x1.5	M12/P9	1.81 (46.0)	0.26 (6.50)	0.12–0.26 (3.0–6.5)	1.77 (45.0)	0.83/0.55/0.79	50
CVW 90 M16 EMV	83551452	black	M16x1.5	M16/P11	2.13 (54.0)	0.24 (6.0)	0.20–0.39 (5.0–10.0)	2.13 (54.0)	1.06/0.79/1.06	50
CVW 90 M20 EMV	83551456	black	M20x1.5	M20/P16	2.64 (67.0)	0.24 (6.0)	0.39–0.55 (10.0–14.0)	2.64 (67.0)	1.34/0.79/1.30	50
CVW 90 M25 EMV	83551458	black	M25x1.5	M25/P21	2.91 (74.0)	0.28 (7.0)	0.51–0.71 (13.0–18.0)	3.11 (79.0)	1.61/1.18/1.61	25
CVW 90 M32 EMV	83551460	black	M32x1.5	M32/P29	3.46 (88.0)	0.31 (8.0)	0.71–0.98 (18.0–25.0)	3.62 (92.0)	1.97/1.57/1.97	25
CVW 90 M40 EMV **	83551462	black	M40x1.5	M40/P36	4.25 (108.0)	0.31 (8.0)	0.87–1.26 (22.0–32.0)	4.29 (109.0)	2.36/1.97/2.36	25
CVW 90 M63 EMV	83551464	black	M63x1.5	M50/P36	5.0 (127.0)	0.39 (10.0)	1.46–1.73 (37.0–44.0)	5.35 (136.0)	2.95/2.68/2.95	10

\*\* CSA authorization

IP68





## Type DVW 90° (360° rotatable conduit fitting; metal thread)



IP68



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
Brass, nickel-plated



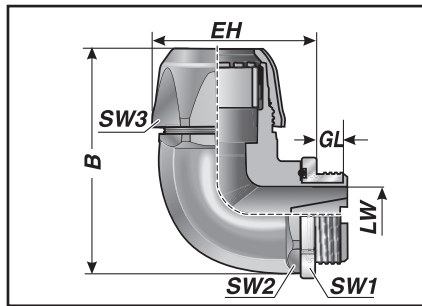
VO



IP 68 to 6 bar (IP 69K)

Rotatable, angled conduit fitting with metal thread. Following installation, the fitting can be turned into a desired position.

- Easy assembly = insert conduit → screw upper part tight → ready
- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Resistant to vibration due to lockable cap nut
- Clamping along entire circumference ensuring maximum tear-out strength
- Can be opened without tools
- High sealant properties corresponding to IP 68 to 6 bar (IP 69K) without additional parts
- Simple check that the conduit is assembled correctly



DVW 90°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2 inch (mm)	B inch (mm)	Pack qty.
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Metric metal thread

DVW 90 M16/P9-M	83495252	black	M16x1.5	M12/Pg09	1.25 (31.80)	0.44 (11.20)	0.28 (7.20)	0.83/0.83 (21/21)	1.80 (45.80)	50
DVW 90 M20/P11-M	83495254	black	M20x1.5	M16/Pg11	1.52 (38.50)	0.44 (11.20)	0.41 (10.50)	1.06/1.06 (27/27)	2.24 (56.80)	50
DVW 90 M25/P16-M	83495256	black	M25x1.5	M20/Pg16	1.89 (48.00)	0.48 (12.20)	0.57 (14.60)	1.34/1.06 (34/27)	2.70 (68.60)	25
DVW 90 M32/P21-M	83495258	black	M32x1.5	M25/Pg21	2.19 (55.50)	0.48 (12.20)	0.74 (18.70)	0.79/0.79 (41/41)	3.12 (79.30)	25
DVW 90 M40/P29-M	83495260	black	M40x1.5	M32/Pg29	2.66 (67.50)	0.52 (13.20)	1.00 (25.50)	0.79/0.79 (50/50)	3.69 (93.60)	25
DVW 90 M50/P36-M **	83495262	black	M50x1.5	M40/Pg36	2.98 (75.70)	0.60 (15.20)	1.30 (33.00)	0.79/0.79 (60/60)	4.33 (109.90)	10
DVW 90 M63/P48-M	83495264	black	M63x1.5	M50/Pg48	3.65 (92.80)	0.60 (15.20)	1.62 (41.20)	0.79/0.79 (75/75)	5.35 (135.80)	10

\*\* CSA authorization



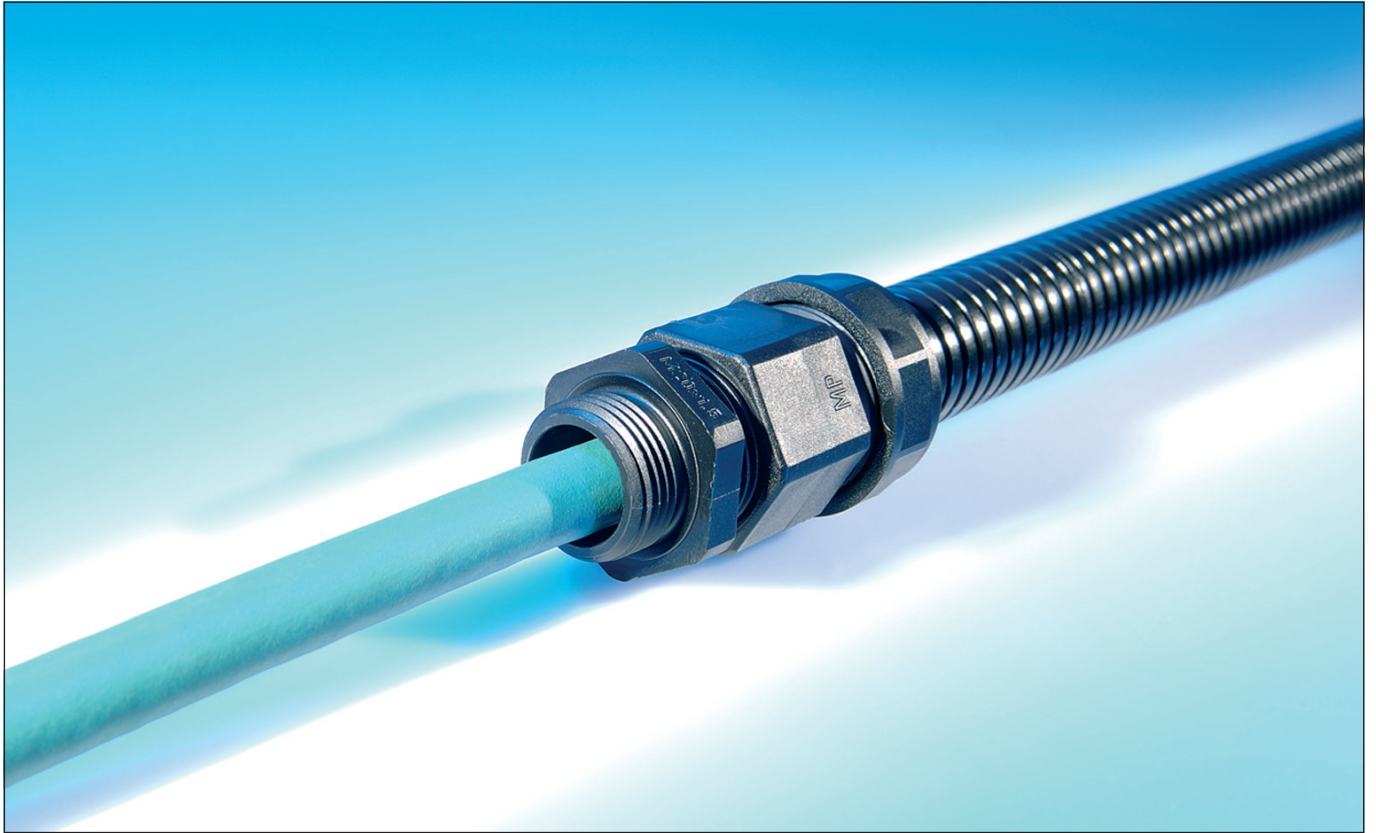


**m-tec conduit fitting**





## Advantages



## Universal

The m-tec family consists of conduit fittings manufactured from high-grade polyamide.

Thanks to their construction, the fitting provides a high protection class of IP 65. The fittings are completely pre-assembled and no parts such as lockable cap nuts and clamping rings have to be fitted retrospectively. This ensures the greatest possible process reliability in assembly.


The cable protection conduit can be assembled quickly and easily by simply inserting the conduit and turning the cap nut.

As the inner bends have no sharp edges, the introduction of cables through 90° fittings does not present any problems.



- ✓ High protection class IP 65
- ✓ One-piece fitting
- ✓ Quick assembly
- ✓ High tear-out strength
- ✓ Inner contours rounded for 90° variants


## m-tec series product range



**Type EH (plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


Page 110



**Type CSKV (conduit and cable fitting, plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


Page 113



**Type ECSKV (conduit and cable fitting)**

PG thread (Pg)


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**Type KW 90° (plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)


Page 119



**Type CKW (conduit and cable fitting, plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)


Page 121



**Type MCSKV (conduit and cable fitting, plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
Multi-insert


Page 115



**Type MECSKV (conduit and cable fitting)**

PG thread (Pg)  
multi-insert

Page 118



**Type MCKW (conduit and cable fitting, plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
Multi-insert

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## Combination options

	Conduit fittings up to conduit size M50 / Pg48							
	EH	CSKV	MCSKV	ECSKV	MECSKV	KW 90°	CKW	MCKW
EF	✗	✗	✗	✗	✗	✗	✗	✗
EW	✓	✓	✓	✓	✓	✓	✓	✓
EW-F	✓	✓	✓	✓	✓	✓	✓	✓
EWS	✓	✓	✓	✓	✓	✓	✓	✓
EWX	✓	✓	✓	✓	✓	✓	✓	✓
EW-G	⦿	⦿	⦿	⦿	⦿	⦿	⦿	⦿
EW-HY	✓	✓	✓	✓	✓	✓	✓	✓
EW-LS	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓
EW-PA-EX	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAB	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAE	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAL	✓	✓	✓	✓	✓	✓	✓	✓
EW-PAP	✗	✗	✗	✗	✗	✗	✗	✗
EW-PP	✓	✓	✓	✓	✓	✓	✓	✓
EW-PRF	✓	✓	✓	✓	✓	✓	✓	✓
EW-TEF	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PA	✓	✓	✓	✓	✓	✓	✓	✓
EWT-PP	✓	✓	✓	✓	✓	✓	✓	✓
EWX-LS	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-LS	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PA-UL	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE	✓	✓	✓	✓	✓	✓	✓	✓
EWX-PAE-LS	✓	✓	✓	✓	✓	✓	✓	✓
GF	✗	✗	✗	✗	✗	✗	✗	✗

✓ combinable

✗ not combinable

⦿ combinable to an extent (remove sheathing)

## Material data

	Material			Temperature area [°F]			Protection rating on corrugated conduit	Protection class on cable with combined conduit and cable fittings	Fire specifications UL94	UL File number E148958	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
	Fitting	Moulded seal	Clamping ring	Min.	Max.	Short periods											
EH	Polyamide PA6		POM	-40	230	284	IP 65		V0	✓	✓	✓	✓	✓	✓	✓	✓
CSKV	Polyamide PA6	CR	POM	-40	230	284	IP 65	IP 68	V0	✓	✓	✓	✓	✓	✓	✓	✓
MCSKV	Polyamide PA6	CR	POM	-40	230	284	IP 65	IP 65	V0		✓	✓	✓	✓	✓	✓	✓
ECSKV	Polyamide PA6	CR	POM	-40	230	284	IP 65	IP 65	V0	✓	✓	✓	✓	✓	✓	✓	✓
MECSKV	Polyamide PA6	CR	POM	-40	230	284	IP 65	IP 65	V0		✓	✓	✓	✓	✓	✓	✓
KW 90°	Polyamide PA6		POM	-40	230	284	IP 65		V0	✓	✓	✓	✓	✓	✓	✓	✓
CKW	Polyamide PA6	CR	POM	-40	230	284	IP 65	IP 68	V0		✓	✓	✓	✓	✓	✓	✓
MCKW	Polyamide PA6	CR	POM	-40	230	284	IP 65	IP 68	V0		✓	✓	✓	✓	✓	✓	✓



## Type EH

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
POM



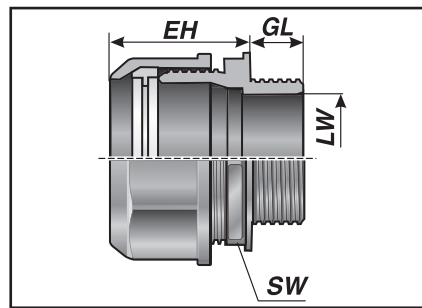
V0



IP 65

Straight conduit fitting with plastic thread.

- Reliable assembly because fitting is supplied pre-assembled.  
No additional parts required
- Integrated clamping ring ensures high tear-out strength
- High protection class IP 65 without additional parts
- Can be opened without tools



EH

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
Metric version									
EH-M12x1.5/9	83501452	black	M12x1.5	M12/P9	1.02 (26.0)	0.51 (13.0)	0.31 (8.0)	0.75 (19.0)	50
EH-M12x1.5/11	83501456	black	M12x1.5	M16/P11	1.02 (26.0)	0.51 (13.0)	0.31 (8.0)	0.87 (22.0)	50
EH-M16x1.5/9	83501454	black	M16x1.5	M12/P9	1.02 (26.0)	0.51 (13.0)	0.43 (11.0)	0.75 (19.0)	50
EH-M16x1.5/11	83501458	black	M16x1.5	M16/P11	1.02 (26.0)	0.51 (13.0)	0.43 (11.0)	0.87 (22.0)	50
EH-M20x1.5/13.5	83501459	black	M20x1.5	NW 13	1.02 (26.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
EH-M20x1.5/16	83501460	black	M20x1.5	M20/P16(S)	1.02 (26.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
EH-M25x1.5/21	83501462	black	M25x1.5	M25/P21(S)	1.30 (33.0)	0.39 (10.0)	0.83 (21.0)	1.46 (37.0)	50
EH-M32x1.5/29	83501464	black	M32x1.5	M32/P29(S)	1.30 (33.0)	0.39 (10.0)	1.06 (27.0)	1.77 (45.0)	25
EH-M40x1.5/36	83501466	black	M40x1.5	M40/P36(S)	1.73 (44.0)	0.59 (15.0)	1.38 (35.0)	2.17 (55.0)	25
EH-M50x1.5/48	83501468	black	M50x1.5	M50/P48(S)	1.97 (50.0)	0.67 (17.0)	1.73 (44.0)	2.56 (65.0)	10
EH-M63x1.5/48	83501470	black	M63x1.5	M50/P48(S)	1.97 (50.0)	0.59 (15.0)	1.97 (50.0)	2.56 (65.0)	10
EH-M12x1.5/9	83501412	grey	M12x1.5	M12/P9	1.02 (26.0)	0.51 (13.0)	0.31 (8.0)	0.75 (19.0)	50
EH-M12x1.5/11	83501416	grey	M12x1.5	M16/P11	1.02 (26.0)	0.51 (13.0)	0.31 (8.0)	0.87 (22.0)	50
EH-M16x1.5/9	83501414	grey	M16x1.5	M12/P9	1.02 (26.0)	0.51 (13.0)	0.43 (11.0)	0.75 (19.0)	50
EH-M16x1.5/11	83501418	grey	M16x1.5	M16/P11	1.02 (26.0)	0.51 (13.0)	0.43 (11.0)	0.87 (22.0)	50
EH-M20x1.5/13.5	83501419	grey	M20x1.5	NW 13	1.02 (26.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
EH-M20x1.5/16	83501420	grey	M20x1.5	M20/P16(S)	1.02 (26.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
EH-M25x1.5/21	83501422	grey	M25x1.5	M25/P21(S)	1.30 (33.0)	0.39 (10.0)	0.83 (21.0)	1.46 (37.0)	50
EH-M32x1.5/29	83501424	grey	M32x1.5	M32/P29(S)	1.30 (33.0)	0.39 (10.0)	1.06 (27.0)	1.77 (45.0)	25
EH-M40x1.5/36	83501426	grey	M40x1.5	M40/P36(S)	1.73 (44.0)	0.59 (15.0)	1.38 (35.0)	2.17 (55.0)	25
EH-M50x1.5/48	83501428	grey	M50x1.5	M50/P48(S)	1.97 (50.0)	0.67 (17.0)	1.73 (44.0)	2.56 (65.0)	10
EH-M63x1.5/48	83501430	grey	M63x1.5	M50/P48(S)	1.97 (50.0)	0.59 (15.0)	1.97 (50.0)	2.56 (65.0)	10

## Type EH

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
Pg version									
EH-Pg 07	83501050	black	Pg 07	M10/P7	1.02 (26.0)	0.31 (8.0)	0.33 (8.50)	0.75 (19.0)	50
EH-Pg 07/09	83501068	black	Pg 07	M12/P9	1.02 (26.0)	0.31 (8.0)	0.33 (8.50)	0.75 (19.0)	50
EH-Pg 09	83501052	black	Pg 09	M12/P9	1.02 (26.0)	0.31 (8.0)	0.43 (11.0)	0.75 (19.0)	50
EH-Pg 09/11	83501070	black	Pg 09	M16/P11	1.02 (26.0)	0.31 (8.0)	0.41 (10.5)	0.87 (22.0)	50
EH-Pg 09/13.5	83501072	black	Pg 09	NW 13	1.02 (26.0)	0.31 (8.0)	0.41 (10.5)	1.06 (27.0)	50
EH-Pg 09/16	83501074	black	Pg 09	M20/P16	1.02 (26.0)	0.31 (8.0)	0.41 (10.5)	1.06 (27.0)	50
EH-Pg 11	83501054	black	Pg 11	M16/P11	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	0.87 (22.0)	50
EH-Pg 11/09	83501076	black	Pg 11	M12/P09	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	0.75 (19.0)	50
EH-Pg 11/13.5	83501078	black	Pg 11	NW 13	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 11/16	83501080	black	Pg 11	M20/P16	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 13.5	83501055	black	Pg 13.5	NW 13	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 13.5/16	83501056	black	Pg 13.5	M20/P16	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 16	83501058	black	Pg 16	M20/P16	1.02 (26.0)	0.31 (8.0)	0.67 (17.0)	1.06 (27.0)	50
EH-Pg 16/13.5	83501082	black	Pg 16	NW 13	1.02 (26.0)	0.31 (8.0)	0.67 (17.0)	1.06 (27.0)	50
EH-Pg 21	83501060	black	Pg 21	M25/P21(S)	1.34 (34.0)	0.39 (10.0)	0.91 (23.0)	1.50 (38.0)	50
EH-Pg 21 long	83501061	black	Pg 21	M25/P21(S)	1.34 (34.0)	0.59 (15.0)	0.91 (23.0)	1.50 (38.0)	50
EH-Pg 29	83501062	black	Pg 29	M32/P29(S)	1.34 (34.0)	0.39 (10.0)	1.22 (31.0)	1.81 (46.0)	25
EH-Pg 29 long	83501063	black	Pg 29	M32/P29(S)	1.34 (34.0)	0.59 (15.0)	1.22 (31.0)	1.81 (46.0)	25
EH-Pg 36	83501064	black	Pg 36	M40/P36(S)	1.73 (44.0)	0.59 (15.0)	1.57 (40.0)	2.17 (55.0)	25
EH-Pg 48	83501066	black	Pg 48	M50/P48(S)	1.97 (50.0)	0.59 (15.0)	2.01 (51.0)	2.56 (65.0)	10
EH-Pg 07	83501010	grey	Pg 07	M10/P7	1.02 (26.0)	0.31 (8.0)	0.33 (8.50)	0.75 (19.0)	50
EH-Pg 07/09	83501028	grey	Pg 07	M12/P9	1.02 (26.0)	0.31 (8.0)	0.33 (8.50)	0.75 (19.0)	50
EH-Pg 09	83501012	grey	Pg 09	M12/P9	1.02 (26.0)	0.31 (8.0)	0.43 (11.0)	0.75 (19.0)	50
EH-Pg 09/11	83501030	grey	Pg 09	M16/P11	1.02 (26.0)	0.31 (8.0)	0.41 (10.5)	0.87 (22.0)	50
EH-Pg 09/13.5	83501032	grey	Pg 09	NW 13	1.02 (26.0)	0.31 (8.0)	0.41 (10.5)	1.06 (27.0)	50
EH-Pg 09/16	83501034	grey	Pg 09	M20/P16	1.02 (26.0)	0.31 (8.0)	0.41 (10.5)	1.06 (27.0)	50
EH-Pg 11	83501014	grey	Pg 11	M16/P11	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	0.87 (22.0)	50
EH-Pg 11/09	83501036	grey	Pg 11	M12/P09	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	0.75 (19.0)	50
EH-Pg 11/13.5	83501038	grey	Pg 11	NW 13	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 11/16	83501040	grey	Pg 11	M20/P16	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 13.5	83501015	grey	Pg 13.5	NW 13	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 13.5/16	83501016	grey	Pg 13.5	M20/P16	1.02 (26.0)	0.31 (8.0)	0.55 (14.0)	1.06 (27.0)	50
EH-Pg 16	83501018	grey	Pg 16	M20/P16	1.02 (26.0)	0.31 (8.0)	0.67 (17.0)	1.06 (27.0)	50
EH-Pg 16/13.5	83501042	grey	Pg 16	NW 13	1.02 (26.0)	0.31 (8.0)	0.67 (17.0)	1.06 (27.0)	50
EH-Pg 21	83501020	grey	Pg 21	M25/P21(S)	1.34 (34.0)	0.39 (10.0)	0.91 (23.0)	1.50 (38.0)	50
EH-Pg 21 long	83501021	grey	Pg 21	M25/P21(S)	1.34 (34.0)	0.59 (15.0)	0.91 (23.0)	1.50 (38.0)	50
EH-Pg 29	83501022	grey	Pg 29	M32/P29(S)	1.34 (34.0)	0.39 (10.0)	1.22 (31.0)	1.81 (46.0)	25
EH-Pg 29 long	83501023	grey	Pg 29	M32/P29(S)	1.34 (34.0)	0.59 (15.0)	1.22 (31.0)	1.81 (46.0)	25
EH-Pg 36	83501024	grey	Pg 36	M40/P36(S)	1.73 (44.0)	0.59 (15.0)	1.57 (40.0)	2.17 (55.0)	25
EH-Pg 48	83501026	grey	Pg 48	M50/P48(S)	1.97 (50.0)	0.59 (15.0)	2.01 (51.0)	2.56 (65.0)	10
NPT version									
EH-NPT 3/8"/11	83501251	black	3/8"	M16/P11	1.02 (26.0)	0.55 (14.0)	0.47 (12.0)	0.87 (22.0)	50
EH-NPT 1/2"/16	83501250	black	1/2"	M20/P16(S)	1.02 (26.0)	0.51 (13.0)	0.55 (14.0)	1.06 (27.0)	50
EH-NPT 3/4"/21	83501252	black	3/4"	M25/P21(S)	1.22 (31.0)	0.55 (14.0)	0.75 (19.0)	1.46 (37.0)	50
EH-NPT 1"/29	83501254	black	1"	M32/P29(S)	1.26 (32.0)	0.75 (19.0)	1.02 (26.0)	1.81 (46.0)	25
EH-NPT 2"/48	83501258	black	2"	M50/P48(S)	1.97 (50.0)	0.71 (18.0)	2.01 (51.0)	2.56 (65.0)	10
EH-NPT 1 1/4"/36	83501256	black	1 1/4"	M40/P36(S)	1.73 (44.0)	0.71 (18.0)	1.38 (35.0)	2.17 (55.0)	25

IP65





## Type EH

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
EH-NPT 3/8"/11	83501211	grey	3/8"	M16/P11	1.02 (26.0)	0.55 (14.0)	0.47 (12.0)	0.87 (22.0)	50
EH-NPT 1/2"/16	83501210	grey	1/2"	M20/P16(S)	1.02 (26.0)	0.51 (13.0)	0.55 (14.0)	1.06 (27.0)	50
EH-NPT 3/4"/21	83501212	grey	3/4"	M25/P21(S)	1.22 (31.0)	0.55 (14.0)	0.75 (19.0)	1.46 (37.0)	50
EH-NPT 1"/29	83501214	grey	1"	M32/P29(S)	1.26 (32.0)	0.75 (19.0)	1.02 (26.0)	1.81 (46.0)	25
EH-NPT 1 1/4"/36	83501216	grey	1 1/4"	M40/P36(S)	1.73 (44.0)	0.71 (18.0)	1.38 (35.0)	2.17 (55.0)	25
EH-NPT 2"/48	83501218	grey	2"	M50/P48(S)	1.97 (50.0)	0.71 (18.0)	2.01 (51.0)	2.56 (65.0)	10





IP65





## Type CSKV (conduit and cable fitting)

RoHS  
compliant

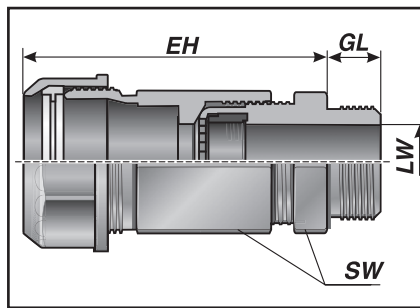
-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide  
Moulded seal: Buna N
-  V0
-  IP 65

Combined 2-in-1 conduit and cable fitting.

The CSKV is a combination of our proven WKK cable fitting and the EH conduit fitting.

- Clamping along entire circumference ensuring maximum tear-out strength
- Optimum strain relief for the cable due to iris-shaped lamellae
- No parts can get lost as the fitting does not have to be dismantled for assembly
- High protection class IP 65 without additional parts

IP65



CSKV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
<b>Metric version</b>									
CSKV-M16x1.5/9	83581850	black	M16x1.5	M12/P9	1.77 (45.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75 (19.0)	50
CSKV-M16x1.5/11	83581852	black	M16x1.5	M16/P11	1.93 (49.0)	0.31 (8.0)	0.20–0.39 (5.0–10.0)	0.87 (22.0)	50
CSKV-M20x1.5/13.5-16	83581854	black	M20x1.5	M20/P16	1.97 (50.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	0.94/1.06 (24.0/27.0)	50
CSKV-M20x1.5/16	83581856	black	M20x1.5	M20/P16(S)	2.05 (52.0)	0.35 (9.0)	0.39–0.55 (10.0–14.0)	1.06 (27.0)	50
CSKV-M25x1.5/21	83581858	black	M25x1.5	M25/P21(S)	2.36 (60.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	1.30 (33.0)	50
CSKV-M32x1.5/29	83581860	black	M32x1.5	M32/P29(S)	2.72 (69.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65 (42.0)	25
CSKV-M40x1.5/36	83581862	black	M40x1.5	M40/P36(S)	3.46 (88.0)	0.51 (13.0)	0.87–1.26 (22.0–32.0)	2.09 (53.0)	10
CSKV-M63x1.5/48	83581864	black	M63x1.5	M50/48(S)	4.29 (109.0)	0.55 (14.0)	1.46–1.73 (37.0–44.0)	2.56 (65.0)	10
<b>Pg version</b>									
CSKV-Pg 09	83581250	black	Pg 09	M12/P9	1.77 (45.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75 (19.0)	50
CSKV-Pg 11	83581252	black	Pg 11	M16/P11	1.93 (49.0)	0.31 (8.0)	0.20–0.39 (5.0–10.0)	0.87 (22.0)	50
CSKV-Pg 13.5/16	83581254	black	Pg 13.5	M20/P16(S)	2.05 (52.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	0.94/1.06 (24.0/27.0)	50
CSKV-Pg 16	83581256	black	Pg 16	M20/P16(S)	2.05 (52.0)	0.39 (10.0)	0.39–0.55 (10.0–14.0)	1.06 (27.0)	50
CSKV-Pg 21	83581258	black	Pg 21	M25/P21(S)	2.36 (60.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	1.30 (33.0)	50
CSKV-Pg 29	83581260	black	Pg 29	M32/P29(S)	2.72 (69.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65 (42.0)	25
CSKV-Pg 36	83581262	black	Pg 36	M40/P36(S)	3.46 (88.0)	0.51 (13.0)	0.87–1.26 (22.0–32.0)	2.09 (53.0)	10
CSKV-Pg 48	83581264	black	Pg 48	M50/P48(S)	3.74 (95.0)	0.55 (14.0)	1.46–1.73 (37.0–44.0)	2.56 (65.0)	10





Type CSKV (conduit and cable fitting)

RoHS compliant





IP65

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
CSKV-Pg 09	83581210	grey	Pg 09	M12/P9	1.77 (45.0)	0.31 (8.0)	0.16-0.31 (4.0-8.0)	0.75 (19.0)	50
CSKV-Pg 11	83581212	grey	Pg 11	M16/P11	1.93 (49.0)	0.31 (8.0)	0.20-0.39 (5.0-10.0)	0.87 (22.0)	50
CSKV-Pg 13.5/16	83581214	grey	Pg 13.5	M20/P16(S)	2.05 (52.0)	0.35 (9.0)	0.24-0.47 (6.0-12.0)	0.94/1.06 (24.0/27.0)	50
CSKV-Pg 16	83581216	grey	Pg 16	M20/P16(S)	2.05 (52.0)	0.39 (10.0)	0.39-0.55 (10.0-14.0)	1.06 (27.0)	50
CSKV-Pg 21	83581218	grey	Pg 21	M25/P21(S)	2.36 (60.0)	0.43 (11.0)	0.51-0.71 (13.0-18.0)	1.30 (33.0)	50
CSKV-Pg 29	83581220	grey	Pg 29	M32/P29(S)	2.72 (69.0)	0.43 (11.0)	0.71-0.98 (18.0-25.0)	1.65 (42.0)	25
CSKV-Pg 36	83581222	grey	Pg 36	M40/P36(S)	3.46 (88.0)	0.51 (13.0)	0.87-1.26 (22.0-32.0)	2.09 (53.0)	10
CSKV-Pg 48	83581224	grey	Pg 48	M50/P48(S)	3.74 (95.0)	0.55 (14.0)	1.46-1.73 (37.0-44.0)	2.56 (65.0)	10
NPT version									
CSKV 3/8"-09	83583250	black	3/8"	M12/P9	1.77 (45.0)	0.55 (14.0)	0.16-0.31 (4.0-8.0)	0.75/0.87 (19.0/22.0)	50
CSKV 1/2"-16	83583256	black	1/2"	M20/P16(S)	2.05 (52.0)	0.51 (13.0)	0.39-0.55 (10.0-14.0)	1.06 (27.0)	50
CSKV 3/4"-21	83583258	black	3/4"	M25/P21(S)	2.36 (60.0)	0.55 (14.0)	0.51-0.71 (13.0-18.0)	1.30 (33.0)	25
CSKV 1"-29	83583260	black	1"	M32/P29(S)	2.72 (69.0)	0.75 (19.0)	0.71-0.98 (18.0-25.0)	1.65 (42.0)	25
CSKV 3/8"-09	83583210	grey	3/8"	M12/P9	1.77 (45.0)	0.55 (14.0)	0.16-0.31 (4.0-8.0)	0.75/0.87 (19.0/22.0)	50
CSKV 1/2"-16	83583216	grey	1/2"	M20/P16(S)	2.05 (52.0)	0.51 (13.0)	0.39-0.55 (10.0-14.0)	1.06 (27.0)	50
CSKV 3/4"-21	83583218	grey	3/4"	M25/P21(S)	2.36 (60.0)	0.55 (14.0)	0.51-0.71 (13.0-18.0)	1.30 (33.0)	25
CSKV 1"-29	83583220	grey	1"	M32/P29(S)	2.72 (69.0)	0.75 (19.0)	0.71-0.98 (18.0-25.0)	1.65 (42.0)	25



## Type MCSKV (conduit and cable fitting)

RoHS  
compliant

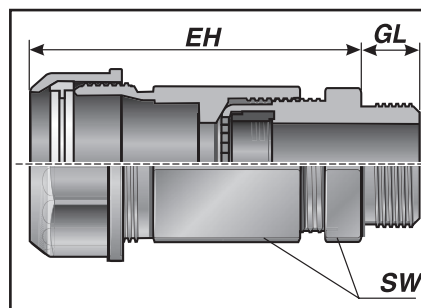
-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide  
Moulded seal: Buna N
-  V0
-  IP 65

Combined conduit and cable fitting 2-in-1 with multi-insert.

The MCSKV is a combination of our proven MWKK multi cable fitting and the m-tec EH.

- Clamping along entire circumference ensuring maximum tear-out strength
- Optimum strain relief for the cable due to iris-shaped lamellae
- No parts can get lost as the fitting does not have to be dismantled for assembly
- High protection class IP 65 without additional parts
- Several cables can be inserted at the same time

IP65



MCSKV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	Number x Ø inch (mm)	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
Metric version									
MCSKV-M16x1.5/9/4x1.4	83582850	black	M16x1.5	M12/P9	4 x 0.06 (1.4)	1.77 (45.0)	0.31 (8.0)	0.75 (19.0)	50
MCSKV-M16x1.5/9/2x3	83582852	black	M16x1.5	M12/P9	2 x 0.12 (3.0)	1.77 (45.0)	0.31 (8.0)	0.75 (19.0)	50
MCSKV-M20x1.5/16/3x2	83582854	black	M20x1.5	M20/P16	3 x 0.08 (2.0)	2.05 (52.0)	0.35 (9.0)	1.06 (27.0)	50
MCSKV-M20x1.5/16/6x3	83582856	black	M20x1.5	M20/P16	6 x 0.12 (3.0)	2.05 (52.0)	0.35 (9.0)	1.06 (27.0)	50
MCSKV-M20x1.5/16/3x4	83582858	black	M20x1.5	M20/P16	3 x 0.16 (4.0)	2.05 (52.0)	0.35 (9.0)	1.06 (27.0)	50
MCSKV-M20x1.5/16/2x5	83582860	black	M20x1.5	M20/P16	2 x 0.20 (5.0)	2.05 (52.0)	0.35 (9.0)	1.06 (27.0)	50
MCSKV-M25x1.5/21/4x2	83582862	black	M25x1.5	M25/P21	4 x 0.08 (2.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-M25x1.5/21/3x7	83582864	black	M25x1.5	M25/P21	3 x 0.28 (7.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-M25x1.5/21/2x8	83582866	black	M25x1.5	M25/P21	2 x 0.31 (8.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-M32x1.5/29/6x6.5	83582868	black	M32x1.5	M32/P29	6 x 0.26 (6.5)	2.72 (69.0)	0.43 (11.0)	1.65 (42.0)	25
MCSKV-M32x1.5/29/4x9	83582870	black	M32x1.5	M32/P29	4 x 0.35 (9.0)	2.72 (69.0)	0.43 (11.0)	1.65 (42.0)	25
Pg version									
MCSKV-Pg 09 4x1.4	83582250	black	Pg 09	M12/P9	4 x 0.06 (1.4)	1.77 (45.0)	0.31 (8.0)	0.75 (19.0)	50
MCSKV-Pg 09 4x3	83582252	black	Pg 09	M12/P9	4 x 0.12 (3.0)	1.77 (45.0)	0.31 (8.0)	0.75 (19.0)	50
MCSKV-Pg 11 2x3	83582254	black	Pg 11	M16/P11	2 x 0.12 (3.0)	1.93 (49.0)	0.31 (8.0)	0.87 (22.0)	50
MCSKV-Pg 11 2x4	83582256	black	Pg 11	M16/P11	2 x 0.16 (4.0)	1.93 (49.0)	0.31 (8.0)	0.87 (22.0)	50
MCSKV-Pg 11 3x3	83582258	black	Pg 11	M16/P11	3 x 0.12 (3.0)	1.93 (49.0)	0.31 (8.0)	0.87 (22.0)	50
MCSKV-Pg 13.5 2x5	83582260	black	Pg 13.5	NW13	2 x 0.20 (5.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 13.5 3x2	83582262	black	Pg 13.5	NW13	3 x 0.08 (2.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 13.5 3x4	83582264	black	Pg 13.5	NW13	3 x 0.16 (4.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 13.5 6x3	83582266	black	Pg 13.5	NW13	6 x 0.12 (3.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 16 2x6	83582268	black	Pg 16	M20/P16	2 x 0.24 (6.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 3x3	83582270	black	Pg 16	M20/P16	3 x 0.12 (3.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 3x4	83582272	black	Pg 16	M20/P16	3 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 3x6	83582274	black	Pg 16	M20/P16	3 x 0.24 (6.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 4x4	83582276	black	Pg 16	M20/P16	4 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50





Type MCSKV (conduit and cable fitting)

RoHS compliant





IP65

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	Number x Ø mm	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
MCSKV-Pg 16 5x4	83582278	black	Pg 16	M20/P16	5 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 6x4	83582280	black	Pg 16	M20/P16	6 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 21 2x8	83582282	black	Pg 21	M25/P21	2 x 0.31 (8.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-Pg 21 3x7	83582284	black	Pg 21	M25/P21	3 x 0.28 (7.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-Pg 21 4x6	83582286	black	Pg 21	M25/P21	4 x 0.24 (6.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-Pg 09 4x1.4	83582210	grey	Pg 09	M12/P9	4 x 0.06 (1.4)	1.77 (45.0)	0.31 (8.0)	0.75 (19.0)	50
MCSKV-Pg 09 4x3	83582212	grey	Pg 09	M12/P9	4 x 0.12 (3.0)	1.77 (45.0)	0.31 (8.0)	0.75 (19.0)	50
MCSKV-Pg 11 2x3	83582214	grey	Pg 11	M16/P11	2 x 0.12 (3.0)	1.93 (49.0)	0.31 (8.0)	0.87 (22.0)	50
MCSKV-Pg 11 2x4	83582216	grey	Pg 11	M16/P11	2 x 0.16 (4.0)	1.93 (49.0)	0.31 (8.0)	0.87 (22.0)	50
MCSKV-Pg 11 3x3	83582218	grey	Pg 11	M16/P11	3 x 0.12 (3.0)	1.93 (49.0)	0.31 (8.0)	0.87 (22.0)	50
MCSKV-Pg 13.5 2x5	83582220	grey	Pg 13.5	NW13	2 x 0.20 (5.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 13.5 3x2	83582222	grey	Pg 13.5	NW13	3 x 0.08 (2.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 13.5 3x4	83582224	grey	Pg 13.5	NW13	3 x 0.16 (4.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 13.5 6x3	83582226	grey	Pg 13.5	NW13	6 x 0.12 (3.0)	2.05 (52.0)	0.35 (9.0)	0.94/1.06 (24.0/27.0)	50
MCSKV-Pg 16 2x6	83582228	grey	Pg 16	M20/P16	2 x 0.24 (6.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 3x3	83582230	grey	Pg 16	M20/P16	3 x 0.12 (3.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 3x4	83582232	grey	Pg 16	M20/P16	3 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 3x6	83582234	grey	Pg 16	M20/P16	3 x 0.24 (6.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 4x4	83582236	grey	Pg 16	M20/P16	4 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 5x4	83582238	grey	Pg 16	M20/P16	5 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 16 6x4	83582240	grey	Pg 16	M20/P16	6 x 0.16 (4.0)	2.05 (52.0)	0.39 (10.0)	1.06 (27.0)	50
MCSKV-Pg 21 2x8	83582242	grey	Pg 21	M25/P21	2 x 0.31 (8.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-Pg 21 3x7	83582244	grey	Pg 21	M25/P21	3 x 0.28 (7.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50
MCSKV-Pg 21 4x6	83582246	grey	Pg 21	M25/P21	4 x 0.24 (6.0)	2.36 (60.0)	0.43 (11.0)	1.30 (33.0)	50



## Type ECSKV (conduit and cable fitting)

RoHS  
compliant

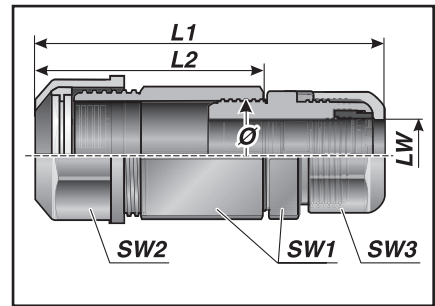
-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide  
Moulded seal: Buna N
-  V0
-  IP 65

Combined 2-in-1 conduit and cable fitting.

The ECSKV is a combination of our proven WKK cable fitting and the m-tec EH conduit fitting.

- Clamping along entire circumference ensuring maximum tear-out strength
- Optimum strain relief for the cable due to iris-shaped lamellae
- No parts can get lost as the fitting does not have to be dismantled for assembly
- High protection class IP 65 without additional parts
- Optimal fixing with the angle bracket BWM

IP65



ECSKV

Type	Order no.	Color	Suitable for Murrflex	L1 inch (mm)	L2 inch (mm)	LW inch (mm)	Ø inch (mm)	SW 1/2/3 inch	Pack qty.
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Pg version									
ECSKV-Pg 09	83581650	black	M12/P9	2.44 (62.0)	1.42 (36.0)	0.16–0.31 (4.0–8.0)	0.60 (15.20)	0.75/0.87/0.75	50
ECSKV-Pg 11	83581652	black	M16/P11	2.68 (68.0)	1.57 (40.0)	0.20–0.39 (5.0–10.0)	0.73 (18.50)	0.87/0.94/0.87	50





## Type MECSKV (conduit and cable fitting)

RoHS compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
Moulded seal: Buna N



V0

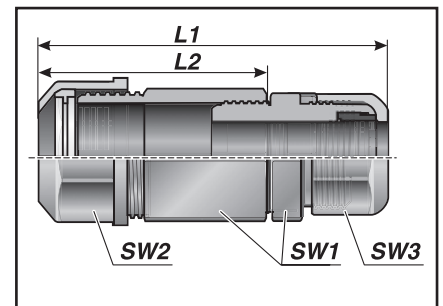


IP 65

Combined conduit and cable fitting 2-in-1 with multi-insert.

The MECSKV is a combination of our proven MWKK multi cable fitting and the m-tec EH.

- Clamping along entire circumference ensuring maximum tear-out strength
- Optimum strain relief for the cable due to iris-shaped lamellae
- No parts can get lost as the fitting does not have to be dismantled for assembly
- Several cables can be inserted at the same time
- Optimal fixing with the angle bracket BWM



MECSKV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	Number x Ø inch (mm)	L1 inch (mm)	L2 inch (mm)	SW 1/2/3 inch	Pack qty.
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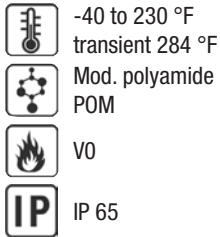
Pg version

MECSKV-Pg 09 2 x 3	83582410	black	Pg 09	M12/P9	2 x 0.12 (3.0)	2.44 (62.0)	1.42 (36.0)	0.75/0.87/0.75	50
MECSKV-Pg 09 4 x 1.4	83582412	black	Pg 09	M12/P9	4 x 0.06 (1.4)	2.44 (62.0)	1.42 (36.0)	0.75/0.87/0.75	50
MECSKV-Pg 11 2 x 3	83582414	black	Pg 11	M16/P11	2 x 0.12 (3.0)	2.68 (68.0)	1.57 (40.0)	0.87/0.94/0.87	50
MECSKV-Pg 11 2 x 4	83582416	black	Pg 11	M16/P11	2 x 0.16 (4.0)	2.68 (68.0)	1.57 (40.0)	0.87/0.94/0.87	50



## Type KW 90° (conduit fitting)

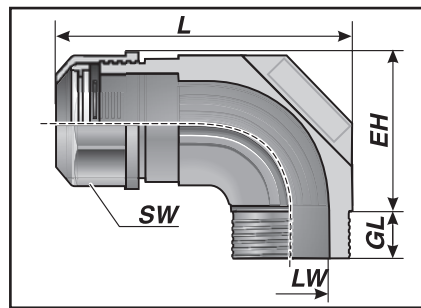
RoHS  
compliant



90° angled conduit fitting with plastic thread.

- Reliable assembly because fitting is supplied pre-assembled.
- No additional parts required
- Integrated clamping ring ensures high tear-out strength
- High protection class IP 65 without additional parts
- Can be opened without tools
- The inner bend is rounded. Therefore easy insertion of the cables into the 90° angle

IP65



KW 90°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	L inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
Metric version										
KW-M16x1.5/9	83565050	black	M16x1.5	M12/P9	1.06 (27.0)	1.85 (47.0)	0.30 (7.50)	0.37 (9.50)	0.87 (22.0)	50
KW-M20x1.5/11	83565052	black	M20x1.5	M16/P11	1.14 (29.0)	2.01 (51.0)	0.31 (8.0)	0.51 (13.0)	0.94 (24.0)	50
KW-M25x1.5/16	83565054	black	M25x1.5	M20/P16(S)	1.38 (35.0)	2.20 (56.0)	0.39 (10.0)	0.63 (16.0)	1.18 (30.0)	50
KW-M32x1.5/21	83565056	black	M32x1.5	M25/P21(S)	1.61 (41.0)	2.64 (67.0)	0.47 (12.0)	0.87 (22.0)	1.50 (38.0)	25
KW-M40x1.5/29	83565058	black	M40x1.5	M32/P29(S)	2.09 (53.0)	3.23 (82.0)	0.47 (12.0)	1.10 (28.0)	1.81 (46.0)	25
Pg version										
KW-Pg 09	83561050	black	Pg 09	M12/P9	1.06 (27.0)	1.77 (45.0)	0.3 (7.50)	0.37 (9.50)	0.87 (22.0)	50
KW-Pg 11	83561052	black	Pg 11	M16/P11	1.14 (29.0)	2.01 (51.0)	0.31 (8.0)	0.51 (13.0)	0.94 (24.0)	50
KW-Pg 13/16	83561054	black	Pg 13.5	M20/P16(S)	1.38 (35.0)	2.20 (56.0)	0.39 (10.0)	0.63 (16.0)	1.18 (30.0)	50
KW-Pg 16	83561056	black	Pg 16	M20/P16(S)	1.38 (35.0)	2.20 (56.0)	0.39 (10.0)	0.63 (16.0)	1.18 (30.0)	50
KW-Pg 21	83561058	black	Pg 21	M25/P21(S)	1.61 (41.0)	2.64 (67.0)	0.43 (11.0)	0.87 (22.0)	1.50 (38.0)	25
KW-Pg 29	83561060	black	Pg 29	M32/P29(S)	2.09 (53.0)	3.23 (82.0)	0.47 (12.0)	1.14 (29.0)	1.81 (46.0)	25
Grey version										
KW-Pg 09	83561010	grey	Pg 09	M12/P9	1.06 (27.0)	1.77 (45.0)	0.3 (7.50)	0.37 (9.50)	0.87 (22.0)	50
KW-Pg 11	83561012	grey	Pg 11	M16/P11	1.14 (29.0)	2.01 (51.0)	0.31 (8.0)	0.51 (13.0)	0.94 (24.0)	50
KW-Pg 13/16	83561014	grey	Pg 13.5	M20/P16(S)	1.38 (35.0)	2.2 (56.0)	0.39 (10.0)	0.63 (16.0)	1.18 (30.0)	50
KW-Pg 16	83561016	grey	Pg 16	M20/P16(S)	1.38 (35.0)	2.2 (56.0)	0.39 (10.0)	0.63 (16.0)	1.18 (30.0)	50
KW-Pg 21	83561018	grey	Pg 21	M25/P21(S)	1.61 (41.0)	2.64 (67.0)	0.43 (11.0)	0.87 (22.0)	1.50 (38.0)	25
KW-Pg 29	83561020	grey	Pg 29	M32/P29(S)	2.09 (53.0)	3.23 (82.0)	0.47 (12.0)	1.14 (29.0)	1.81 (46.0)	25





Type KW 90° (conduit fitting)

RoHS compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	L inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
NPT version										
KW-3/8"/11	83561451	black	3/8"	M16/P11	1.14 (29.0)	2.01 (51.0)	0.31 (8.0)	0.51 (13.0)	0.94 (24.0)	50
KW-1/2"/16	83561450	black	1/2"	M20/P16(S)	1.38 (35.0)	2.20 (56.0)	0.39 (10.0)	0.63 (16.0)	1.18 (30.0)	50
KW-3/4"/21	83561452	black	3/4"	M25/P21(S)	1.61 (41.0)	2.64 (67.0)	0.43 (11.0)	0.83 (21.0)	1.50 (38.0)	25
KW-1"/29	83561454	black	1"	M32/P29(S)	2.09 (53.0)	3.23 (82.0)	0.47 (12.0)	1.06 (27.0)	1.81 (46.0)	25
KW-3/8"/11	83561411	grey	3/8"	M16/P11	1.14 (29.0)	2.01 (51.0)	0.31 (8.0)	0.51 (13.0)	0.94 (24.0)	50
KW-1/2"/16	83561410	grey	1/2"	M20/P16(S)	1.38 (35.0)	2.20 (56.0)	0.39 (10.0)	0.63 (16.0)	1.18 (30.0)	50
KW-3/4"/21	83561412	grey	3/4"	M25/P21(S)	1.61 (41.0)	2.64 (67.0)	0.43 (11.0)	0.83 (21.0)	1.50 (38.0)	25
KW-1"/29	83561414	grey	1"	M32/P29(S)	2.09 (53.0)	3.23 (82.0)	0.47 (12.0)	1.06 (27.0)	1.81 (46.0)	25





IP65





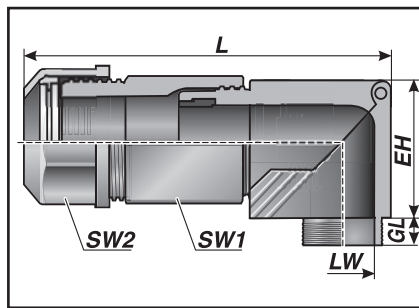
## Type CKW (conduit and cable fitting)

RoHS  
compliant

-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide  
Moulded seal: Buna N
-  V0
-  IP 65

- 90° angled and folding 2-in-1 combined conduit and cable fitting.  
The CKW is a combination of our proven angle cable fitting and the EH conduit fitting
- Clamping along entire circumference ensuring maximum tear-out strength
  - Optimum strain relief for the cable due to iris-shaped lamellae
  - No parts can get lost as the fitting does not have to be dismantled for assembly
  - High protection class IP 65 without additional parts
  - Folding angle piece makes cable assembly easy

IP65



CKW

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	L inch (mm)	GL inch (mm)	LW inch (mm)	SW 1/2 inch (mm)	Pack qty.
Metric version										
CKW-M16x1.5/9	83584250	black	M16x1.5	M12/P9	0.91 (23.0)	2.83 (72.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.87/0.87 (22/22)	50
CKW-M20x1.5/16	83584256	black	M20x1.5	M20/P16	1.26 (32.0)	3.27 (83.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	1.06/1.06 (27/27)	50
CKW-M25x1.5/21	83584258	black	M25x1.5	M25/P21	1.57 (40.0)	4.06 (103.0)	0.47 (12.0)	0.51–0.71 (13.0–18.0)	0.79/0.79 (33/33)	25
CKW-M32x1.5/29	83584260	black	M32x1.5	M32/P29	1.97 (50.0)	4.84 (123.0)	0.47 (12.0)	0.71–0.98 (18.0–25.0)	1.65/1.65 (42/42)	25
Pg version										
CKW-Pg 09	83581050	black	Pg09	M12/P9	0.91 (23.0)	2.64 (67.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75/0.75 (19/19)	50
CKW-Pg 11	83581052	black	Pg11	M16/P11	1.10 (28.0)	2.95 (75.0)	0.31 (8.0)	0.20–0.39 (5.0–10.0)	0.87/0.87 (22/22)	50
CKW-Pg 16	83581054	black	Pg16	M20/P16	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	0.39–0.55 (10.0–14.0)	1.06/1.06 (27/27)	50
CKW-Pg 21	83581056	black	Pg21	M25/P21	1.54 (39.0)	3.94 (100.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	0.79/0.79 (33/33)	25
CKW-Pg 29	83581058	black	Pg29	M32/P29	1.97 (50.0)	4.72 (120.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65/1.65 (42/42)	25





## Type MCKW (conduit and cable fitting)

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



mod. Polyamide/moulded seal: Buna N



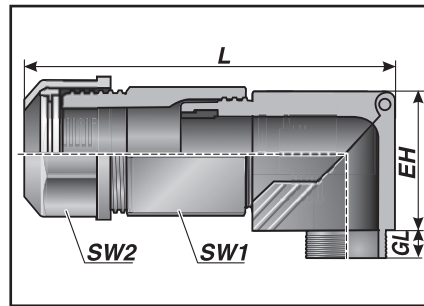
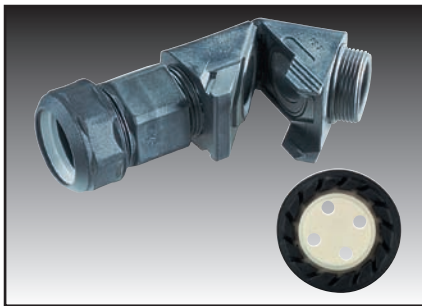
V0



IP 65

90° angled and folding 2-in-1 combined conduit and cable fitting with multi-insert. The MCKW is a combination of our proven multi-angle cable fitting and the EH conduit fitting

- Clamping along entire circumference ensuring maximum tear-out strength
- Optimum strain relief for the cable due to iris-shaped lamellae
- No parts can get lost as the fitting does not have to be dismantled for assembly
- High protection class IP 65 without additional parts
- Folding angle piece makes cable assembly easy



MCKW

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	Quantity x Ø [inch]	EH inch (mm)	L inch (mm)	GL inch (mm)	SW 1/2 inch (mm)	Pack qty.
Metric version										
MCKW-M16x1.5/9/4x1.4	83582650	black	M16x1.5	M12/P9	4 x 0.06 (1.4)	1.08 (27.50)	2.95 (75.0)	0.28 (7.0)	0.87/0.87 (22/22)	50
MCKW-M16x1.5/9/10x1.4	83582652	black	M16x1.5	M12/P9	10 x 0.06 (1.4)	1.08 (27.50)	2.95 (75.0)	0.28 (7.0)	0.87/0.87 (22/22)	50
MCKW-M16x1.5/9/5x1.6	83582654	black	M16x1.5	M12/P9	5 x 0.06 (1.6)	1.08 (27.50)	2.95 (75.0)	0.28 (7.0)	0.87/0.87 (22/22)	50
MCKW-M16x1.5/9/2x3	83582656	black	M16x1.5	M12/P9	2 x 0.12 (3.0)	1.08 (27.50)	2.95 (75.0)	0.28 (7.0)	0.87/0.87 (22/22)	50
MCKW-M20x1.5/16/3x2	83582658	black	M20x1.5	M20/P16	3 x 0.08 (2.0)	1.26 (32.0)	3.27 (83.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
MCKW-M20x1.5/16/2x2.5	83582660	black	M20x1.5	M20/P16	2 x 0.10 (2.5)	1.26 (32.0)	3.27 (83.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
MCKW-M20x1.5/16/6x3	83582662	black	M20x1.5	M20/P16	3 x 0.12 (3.0)	1.26 (32.0)	3.27 (83.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
MCKW-M20x1.5/16/6x3	83582664	black	M20x1.5	M20/P16	6 x 0.12 (3.0)	1.26 (32.0)	3.27 (83.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
MCKW-M20x1.5/16/3x4	83582666	black	M20x1.5	M20/P16	3 x 0.16 (4.0)	1.26 (32.0)	3.27 (83.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
MCKW-M20x1.5/16/2x5	83582668	black	M20x1.5	M20/P16	2 x 0.20 (5.0)	1.26 (32.0)	3.27 (83.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
MCKW-M25x1.5/21/4x5	83582670	black	M25x1.5	M25/P21	4 x 0.20 (5.0)	1.54 (39.0)	3.98 (101.0)	0.43 (11.0)	0.79/0.79 (33/33)	50
MCKW-M25x1.5/21/3x7	83582672	black	M25x1.5	M25/P21	3 x 0.28 (7.0)	1.54 (39.0)	3.98 (101.0)	0.43 (11.0)	0.79/0.79 (33/33)	50
MCKW-M25x1.5/21/2x8	83582674	black	M25x1.5	M25/P21	2 x 0.31 (8.0)	1.54 (39.0)	3.98 (101.0)	0.43 (11.0)	0.79/0.79 (33/33)	50
MCKW-M25x1.5/21/4x6	83582676	black	M25x1.5	M25/P21	4 x 0.24 (6.0)	1.54 (39.0)	3.98 (101.0)	0.43 (11.0)	0.79/0.79 (33/33)	50
MCKW-M32x1.5/29/6x6.5	83582678	black	M32x1.5	M32/P29	6 x 0.26 (6.5)	1.97 (50.0)	4.76 (121.0)	0.43 (11.0)	1.65/1.65 (42/42)	25
MCKW-M32x1.5/29/4x9	83582680	black	M32x1.5	M32/P29	4 x 0.35 (9.0)	1.97 (50.0)	4.76 (121.0)	0.43 (11.0)	1.65/1.65 (42/42)	25
Pg version										
MCKW-Pg 09 2 x 3	83582050	black	Pg 09	M12/P9	2 x 0.12 (3.0)	0.91 (23.0)	2.64 (67.0)	0.31 (8.0)	0.75/0.75 (19/19)	50
MCKW-Pg 09 4 x 1.4	83582052	black	Pg 09	M12/P9	4 x 0.06 (1.4)	0.91 (23.0)	2.64 (67.0)	0.31 (8.0)	0.75/0.75 (19/19)	50
MCKW-Pg 11 2 x 3	83582054	black	Pg 11	M16/P11	2 x 0.12 (3.0)	1.10 (28.0)	2.95 (75.0)	0.31 (8.0)	0.87/0.87 (22/22)	50
MCKW-Pg 11 2 x 4	83582056	black	Pg 11	M16/P11	2 x 0.16 (4.0)	1.10 (28.0)	2.95 (75.0)	0.31 (8.0)	0.87/0.87 (22/22)	50
MCKW-Pg 11 3 x 3	83582058	black	Pg 11	M16/P11	3 x 0.12 (3.0)	1.10 (28.0)	2.95 (75.0)	0.31 (8.0)	0.87/0.87 (22/22)	50
MCKW-Pg 16 2 x 6	83582068	black	Pg 16	M20/P16	2 x 0.24 (6.0)	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	1.06/1.06 (27/27)	50
MCKW-Pg 16 3 x 3	83582070	black	Pg 16	M20/P16	3 x 0.12 (3.0)	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	1.06/1.06 (27/27)	50
MCKW-Pg 16 3 x 4	83582072	black	Pg 16	M20/P16	3 x 0.16 (4.0)	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	1.06/1.06 (27/27)	50
MCKW-Pg 16 3 x 6	83582074	black	Pg 16	M20/P16	3 x 0.24 (6.0)	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	1.06/1.06 (27/27)	50

IP65



## Type MCKW (conduit and cable fitting)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	Quantity x Ø [inch] (mm)	EH inch (mm)	L inch (mm)	GL inch (mm)	SW 1/2 inch (mm)	Pack qty.
MCKW-Pg 16 4 x 4	83582076	black	Pg 16	M20/P16	4 x 0.16 (4.0)	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	1.06/1.06 (27/27)	50
MCKW-Pg 16 5 x 4	83582078	black	Pg 16	M20/P16	5 x 0.16 (4.0)	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	1.06/1.06 (27/27)	50
MCKW-Pg 16 6 x 4	83582080	black	Pg 16	M20/P16	6 x 0.16 (4.0)	1.46 (37.0)	3.35 (85.0)	0.43 (11.0)	1.06/1.06 (27/27)	50
MCKW-Pg 21 2 x 8	83582082	black	Pg 21	M25/P21	2 x 0.31 (8.0)	1.54 (39.0)	3.94 (100.0)	0.43 (11.0)	0.79/0.79 (33/33)	50
MCKW-Pg 21 3 x 7	83582084	black	Pg 21	M25/P21	3 x 0.28 (7.0)	1.54 (39.0)	3.94 (100.0)	0.43 (11.0)	0.79/0.79 (33/33)	50
MCKW-Pg 21 4 x 6	83582086	black	Pg 21	M25/P21	4 x 0.24 (6.0)	1.54 (39.0)	3.94 (100.0)	0.43 (11.0)	0.79/0.79 (33/33)	50
MCKW-Pg 29 6 x 6.5	83582088	black	Pg 29	M32/P29	6 x 0.26 (6.5)	1.97 (50.0)	4.72 (120.0)	0.47 (12.0)	1.65/1.65 (42/42)	25

The connecting angle piece can also be obtained separately. See accessories, type KAW.

IP65





## m-fix conduit fittings



## Advantages



### Easy to connect

The m-fix family consists of conduit fittings manufactured from high-grade polyamide. Their design means that the fittings offer a high protection rating of IP 54.

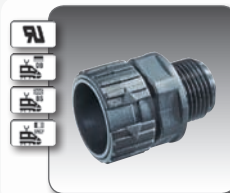
The fittings are completely pre-assembled and no additional parts need to be assembled. This ensures the greatest possible process reliability in assembly. The protection rating can be increased to IP 65 where required by the use of an additional sealing ring.

The cable protection conduit can be assembled quickly and easily by simply inserting the conduit into the fitting. The clamping ring closes automatically. As the inner bends have no sharp edges, the introduction of cables through 90° fittings does not present any problems.



- ✓ Easy push-on connector
- ✓ Very quick assembly
- ✓ High packing density
- ✓ One-piece fitting
- ✓ Inner contours rounded for 90° variants

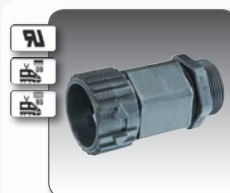
## m-fix series product range



### **Type MSV (push-on connector, plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)

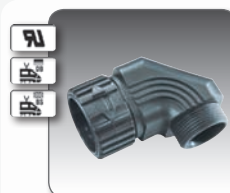
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### **Type KSV (conduit and cable fitting, plastic thread)**

Metric ISO thread (M)  
PG thread (Pg)  
National Pipe Taper (NPT)

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### **Type WSV 90° (angle push-on connector, plastic thread)**

PG thread (Pg)

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### **Type DR-NBR (sealing ring)**

The sealing ring DR-NBR enables the protection rating on conduit fittings MSV, WSV and KSV to be increased from IP 54 to IP 65.

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## Combination options

	Conduit fittings up to conduit size M50 / Pg48		
	MSV	KSV	WSV
EF	✗	✗	✗
EW	✓	✓	✓
EWF	✓	✓	✓
EWS	✓	✓	✓
EWX	*	*	*
EW-G	⦿	⦿	⦿
EW-HY	✓	✓	✓
EW-LS	✓	✓	✓
EW-PA	✓	✓	✓
EW-PA-LS	✓	✓	✓
EW-PA-UL	✓	✓	✓
EW-PA-EX	✓	✓	✓
EW-PAB	✓	✓	✓
EW-PAE	✓	✓	✓
EW-PAL	✓	✓	✓
EW-PAP	✗	✗	✗
EW-PP	✓	✓	✓
EW-PRF	✓	✓	✓
EW-TEF	✓	✓	✓
EWT-PA	✓	✓	✓
EWT-PP	✓	✓	✓
EWX-LS	*	*	*
EWX-PA	✓	✓	✓
EWX-PA-LS	*	*	*
EWX-PA-UL	✓	✓	✓
EWX-PAE	*	*	*
EWX-PAE-LS	*	*	*
GF	✗	✗	✗

✓ combinable

✗ not combinable

⦿ combinable to an extent (remove sheathing)

\* combinable where extraction forces are low



## Material data

	Material			Temperature area [°F]			Protection rating on corrugated conduit	Protection class on cable with combined conduit and cable fittings	Fire specifications UL94	UL File number E148958	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
	Fitting	Moulded seal	Clamping ring	Min.	Max.	Short periods											
MSV	Polyamide PA6		POM	-40	230	284	IP 54 IP 65 with additional sealing ring		V1	✓	✓	✓	✓	✓	✓	✓	✓
KSV	Polyamide PA6	CR	POM	-40	230	284	IP 54 IP 65 with additional sealing ring	IP 68	V1	✓	✓	✓	✓	✓	✓	✓	✓
WSV	Polyamide PA6		POM	-40	230	284	IP 54 IP 65 with additional sealing ring		V1	✓	✓	✓	✓	✓	✓	✓	✓
DR-NBR	NBR			-25	120						✓	✓	✓	✓	✓	✓	✓



## Type MSV (plug-in fitting)

RoHS compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide; POM

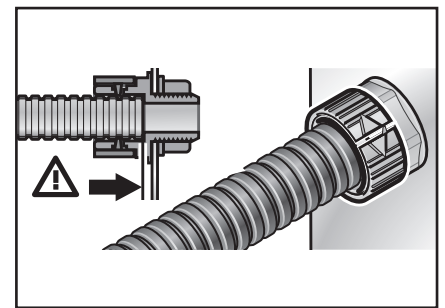
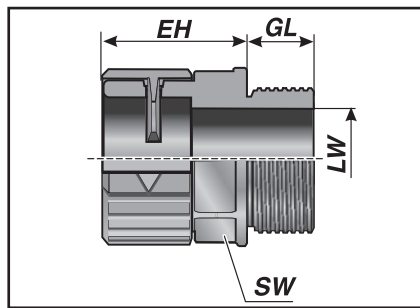


V1



IP 54  
IP 65 with sealing ring DR-NBR

- Cost reduction through simplification of assembly work insert conduit → ready
- Extremely high packing density due to small installation dimensions
- Simple opening mechanism
- Can be opened without tool
- Protection rating IP 65 with additional sealing ring (type DR-NBR)
- Cable protection conduit can still be rotated in the fitting



MSV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
Metric version									
MSV-M12x1.5/7	83602450	black	M12x1.5	M10/P7	0.75 (19.0)	0.51 (13.0)	0.31 (8.0)	0.63 (16.0)	50
MSV-M12x1.5/9	83602452	black	M12x1.5	M12/P9	0.75 (19.0)	0.51 (13.0)	0.31 (8.0)	0.71 (18.0)	50
MSV-M12x1.5/11	83602456	black	M12x1.5	M16/P11	0.91 (23.0)	0.51 (13.0)	0.31 (8.0)	0.83 (21.0)	50
MSV-M16x1.5/9	83602454	black	M16x1.5	M12/P9	0.75 (19.0)	0.51 (13.0)	0.47 (12.0)	0.71 (18.0)	50
MSV-M16x1.5/11	83602458	black	M16x1.5	M16/P11	0.91 (23.0)	0.51 (13.0)	0.47 (12.0)	0.83 (21.0)	50
MSV-M20x1.5/11	83602459	black	M20x1.5	M16/P11	0.91 (23.0)	0.55 (14.0)	0.53 (13.5)	0.83 (21.0)	50
MSV-M20x1.5/16	83602460	black	M20x1.5	M20/P16(S)	1.06 (27.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
MSV-M25x1.5/16	83602461	black	M25x1.5	M20/P16(S)	1.02 (26.0)	0.55 (14.0)	0.75 (19.0)	1.06 (27.0)	50
MSV-M25x1.5/21	83602462	black	M25x1.5	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	0.83 (21.0)	1.42 (36.0)	50
MSV-M32x1.5/21	83602463	black	M32x1.5	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	1.02 (26.0)	1.42 (36.0)	50
MSV-M32x1.5/29	83602464	black	M32x1.5	M32/P29(S)	1.38 (35.0)	0.63 (16.0)	1.06 (27.0)	1.57 (40.0)	25
MSV-M40x1.5/29	83602465	black	M40x1.5	M32/P29(S)	1.34 (34.0)	0.55 (14.0)	1.26 (32.0)	1.57 (40.0)	25
MSV-M40x1.5/36	83602466	black	M40x1.5	M40/P36(S)	1.50 (38.0)	0.63 (16.0)	1.34 (34.0)	1.93 (49.0)	10
MSV-M50x1.5/36	83602467	black	M50x1.5	M40/P36(S)	1.48 (37.5)	0.63 (16.0)	1.57 (40.0)	1.93 (49.0)	10
MSV-M50x1.5/48	83602468	black	M50x1.5	M50/P48(S)	1.54 (39.0)	0.63 (16.0)	1.73 (44.0)	2.36 (60.0)	10
MSV-M63x1.5/48	83602469	black	M63x1.5	M50/P48(S)	1.52 (38.5)	0.63 (16.0)	2.05 (52.0)	2.36 (60.0)	10
MSV-M12x1.5/7	83602410	grey	M12x1.5	M10/P7	0.75 (19.0)	0.51 (13.0)	0.31 (8.0)	0.63 (16.0)	50
MSV-M12x1.5/9	83602412	grey	M12x1.5	M12/P9	0.75 (19.0)	0.51 (13.0)	0.31 (8.0)	0.71 (18.0)	50
MSV-M12x1.5/11	83602416	grey	M12x1.5	M16/P11	0.91 (23.0)	0.51 (13.0)	0.31 (8.0)	0.83 (21.0)	50
MSV-M16x1.5/9	83602414	grey	M16x1.5	M12/P9	0.75 (19.0)	0.51 (13.0)	0.47 (12.0)	0.71 (18.0)	50
MSV-M16x1.5/11	83602418	grey	M16x1.5	M16/P11	0.91 (23.0)	0.51 (13.0)	0.47 (12.0)	0.83 (21.0)	50
MSV-M20x1.5/11	83602419	grey	M20x1.5	M16/P11	0.91 (23.0)	0.55 (14.0)	0.53 (13.5)	0.83 (21.0)	50
MSV-M20x1.5/16	83602420	grey	M20x1.5	M20/P16(S)	1.06 (27.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
MSV-M25x1.5/16	83602421	grey	M25x1.5	M20/P16(S)	1.02 (26.0)	0.55 (14.0)	0.75 (19.0)	1.06 (27.0)	50
MSV-M25x1.5/21	83602422	grey	M25x1.5	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	0.83 (21.0)	1.42 (36.0)	50
MSV-M32x1.5/21	83602423	grey	M32x1.5	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	1.02 (26.0)	1.42 (36.0)	50

## Type MSV (plug-in fitting)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
MSV-M32x1.5/29	83602424	grey	M32x1.5	M32/P29(S)	1.38 (35.0)	0.63 (16.0)	1.06 (27.0)	1.57 (40.0)	25
MSV-M40x1.5/29	83602425	grey	M40x1.5	M32/P29(S)	1.34 (34.0)	0.55 (14.0)	1.26 (32.0)	1.57 (40.0)	25
MSV-M40x1.5/36	83602426	grey	M40x1.5	M40/P36(S)	1.50 (38.0)	0.63 (16.0)	1.34 (34.0)	1.93 (49.0)	10
MSV-M50x1.5/36	83602427	grey	M50x1.5	M40/P36(S)	1.48 (37.5)	0.63 (16.0)	1.57 (40.0)	1.93 (49.0)	10
MSV-M50x1.5/48	83602428	grey	M50x1.5	M50/P48(S)	1.54 (39.0)	0.63 (16.0)	1.73 (44.0)	2.36 (60.0)	10
MSV-M63x1.5/48	83602429	grey	M63x1.5	M50/P48(S)	1.52 (38.5)	0.63 (16.0)	2.05 (52.0)	2.36 (60.0)	10
Pg version									
MSV-Pg 07	83601050	black	Pg 07	M10/P7	0.75 (19.0)	0.35 (9.0)	0.31 (8.00)	0.63 (16.0)	50
MSV-Pg 09	83601052	black	Pg 09	M12/P9	0.75 (19.0)	0.39 (10.0)	0.38 (9.60)	0.71 (18.0)	50
MSV-Pg 11	83601054	black	Pg 11	M16/P11	0.91 (23.0)	0.39 (10.0)	0.47 (12.0)	0.83 (21.0)	50
MSV-Pg 13.5/11	83601055	black	Pg 13.5	M16/P11	0.91 (23.0)	0.51 (13.0)	0.47 (12.0)	0.83 (21.0)	50
MSV-Pg 13.5/16	83601056	black	Pg 13.5	M20/P16(S)	1.06 (27.0)	0.51 (13.0)	0.61 (15.5)	1.06 (27.0)	50
MSV-Pg 16	83601058	black	Pg 16	M20/P16(S)	1.06 (27.0)	0.51 (13.0)	0.61 (15.5)	1.06 (27.0)	50
MSV-Pg 21	83601060	black	Pg 21	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	0.91 (23.0)	1.42 (36.0)	50
MSV-Pg 29	83601062	black	Pg 29	M32/P29(S)	1.38 (35.0)	0.55 (14.0)	1.10 (28.0)	1.57 (40.0)	25
MSV-Pg 36	83601064	black	Pg 36	M40/P36(S)	1.50 (38.0)	0.59 (15.0)	1.57 (40.0)	1.93 (49.0)	10
MSV-Pg 48	83601066	black	Pg 48	M50/P48(S)	1.54 (39.0)	0.67 (17.0)	1.85 (47.0)	2.36 (60.0)	10
MSV-Pg 07	83601010	grey	Pg 07	M10/P7	0.75 (19.0)	0.35 (9.0)	0.31 (8.00)	0.63 (16.0)	50
MSV-Pg 09	83601012	grey	Pg 09	M12/P9	0.75 (19.0)	0.39 (10.0)	0.38 (9.60)	0.71 (18.0)	50
MSV-Pg 11	83601014	grey	Pg 11	M16/P11	0.91 (23.0)	0.39 (10.0)	0.47 (12.0)	0.83 (21.0)	50
MSV-Pg 13.5/11	83601015	grey	Pg 13.5	M16/P11	0.91 (23.0)	0.51 (13.0)	0.47 (12.0)	0.83 (21.0)	50
MSV-Pg 13.5/16	83601016	grey	Pg 13.5	M20/P16(S)	1.06 (27.0)	0.51 (13.0)	0.61 (15.5)	1.06 (27.0)	50
MSV-Pg 16	83601018	grey	Pg 16	M20/P16(S)	1.06 (27.0)	0.51 (13.0)	0.61 (15.5)	1.06 (27.0)	50
MSV-Pg 21	83601020	grey	Pg 21	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	0.91 (23.0)	1.42 (36.0)	50
MSV-Pg 29	83601022	grey	Pg 29	M32/P29(S)	1.38 (35.0)	0.55 (14.0)	1.10 (28.0)	1.57 (40.0)	25
MSV-Pg 36	83601024	grey	Pg 36	M40/P36(S)	1.50 (38.0)	0.59 (15.0)	1.57 (40.0)	1.93 (49.0)	10
MSV-Pg 48	83601026	grey	Pg 48	M50/P48(S)	1.54 (39.0)	0.67 (17.0)	1.85 (47.0)	2.36 (60.0)	10
NPT version									
MSV-NPT 1/2"/16	83602652	black	1/2"	M20/P16(S)	1.06 (27.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
MSV-NPT 3/4"/21	83602654	black	3/4"	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	0.81 (20.5)	1.42 (36.0)	50
MSV-NPT 1"/29	83602656	black	1"	M32/P29(S)	1.38 (35.0)	0.63 (16.0)	1.04 (26.5)	1.57 (40.0)	25
MSV-NPT 1/2"/16	83602612	grey	1/2"	M20/P16(S)	1.06 (27.0)	0.55 (14.0)	0.59 (15.0)	1.06 (27.0)	50
MSV-NPT 3/4"/21	83602614	grey	3/4"	M25/P21(S)	1.26 (32.0)	0.55 (14.0)	0.81 (20.5)	1.42 (36.0)	50
MSV-NPT 1"/29	83602616	grey	1"	M32/P29(S)	1.38 (35.0)	0.63 (16.0)	1.04 (26.5)	1.57 (40.0)	25

Sealing ring for protection rating of IP 65, see under type DR-NBR in this chapter

IP54





## Type KSV (conduit and cable fitting)

RoHS compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide; POM  
Moulded seal: Buna N



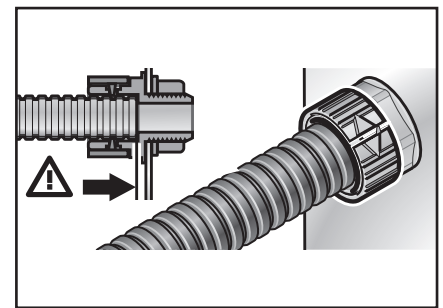
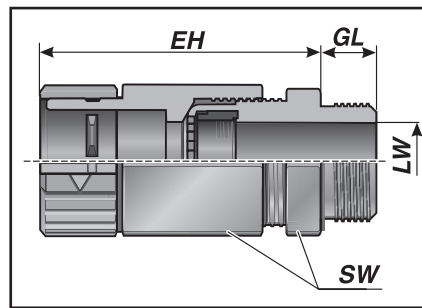
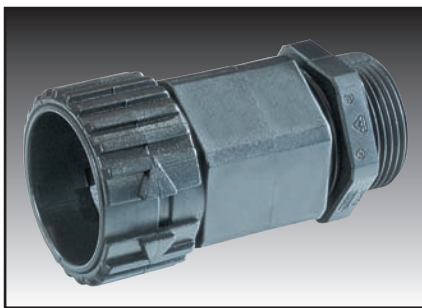
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IP 54  
IP 65 with sealing ring DR-NBR

The KSV is a combination of our proven WKK cable fitting and the m-fix MSV conduit fitting.

- Costs are reduced thanks to easy conduit assembly = insert conduit → ready
- Optimum strain relief for the cable due to iris-shaped lamellae
- No parts can get lost as the fitting does not have to be dismantled for assembly
- Protection rating IP 65 with additional sealing ring (type DR-NBR)
- Cable protection conduit can still be rotated in the fitting



KSV

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
Metric version									
KSV-M16x1.5/9	83611450	black	M16x1.5	M12/P9	1.57 (40.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75 (19)	50
KSV-M16x1.5/11	83611452	black	M16x1.5	M16/P11	1.85 (47.0)	0.31 (8.0)	0.20–0.39 (5.0–10.0)	0.87 (22)	50
KSV-M20x1.5/16	83611456	black	M20x1.5	M20/P16(S)	2.05 (52.0)	0.35 (9.0)	0.39–0.55 (10.0–14.0)	0.94/1.06 (24/27)	50
KSV-M25x1.5/21	83611458	black	M25x1.5	M25/P21(S)	2.40 (61.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	1.30 (33)	50
KSV-M32x1.5/29	83611460	black	M32x1.5	M32/P29(S)	2.87 (73.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65 (42)	25
Pg version									
KSV-Pg 09	83611250	black	Pg 09	M12/P9	1.57 (40.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75 (19)	50
KSV-Pg 11	83611252	black	Pg 11	M16/P11	1.85 (47.0)	0.31 (8.0)	0.20–0.39 (5.0–10.0)	0.87 (22)	50
KSV-Pg 13.5/11	86611253	black	Pg 13.5	M16/P11	1.85 (47.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	0.94/1.06 (24/27)	50
KSV-Pg 13.5/16	83611254	black	Pg 13.5	M20/P16(S)	2.05 (52.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	0.94/1.06 (24/27)	50
KSV-Pg 16	83611256	black	Pg 16	M20/P16(S)	2.09 (53.0)	0.35 (9.0)	0.39–0.55 (10.0–14.0)	1.06 (27)	50
KSV-Pg 16/21	83611257	black	Pg 16	M25/P21	2.40 (61.0)	0.39 (10.0)	0.51–0.71 (13.0–18.0)	1.30 (33)	50
KSV-Pg 21	83611258	black	Pg 21	M25/P21(S)	2.40 (61.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	1.30 (33)	50
KSV-Pg 29	83611260	black	Pg 29	M32/P29(S)	2.87 (73.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65 (42)	25
KSV-Pg 09	83611210	grey	Pg 09	M12/P9	1.57 (40.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75 (19)	50
KSV-Pg 11	83611212	grey	Pg 11	M16/P11	1.85 (47.0)	0.31 (8.0)	0.20–0.39 (5.0–10.0)	0.87 (22)	50
KSV-Pg 13.5/11	86611213	grey	Pg 13.5	M16/P11	1.85 (47.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	0.94/1.06 (24/27)	50
KSV-Pg 13.5/16	83611214	grey	Pg 13.5	M20/P16(S)	2.05 (52.0)	0.35 (9.0)	0.24–0.47 (6.0–12.0)	0.94/1.06 (24/27)	50
KSV-Pg 16	83611216	grey	Pg 16	M20/P16(S)	2.09 (53.0)	0.35 (9.0)	0.39–0.55 (10.0–14.0)	1.06 (27)	50

## Type KSV (conduit and cable fitting)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	GL inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
KSV-Pg 16/21	83611217	grey	Pg 16	M25/P21	2.40 (61.0)	0.39 (10.0)	0.51–0.71 (13.0–18.0)	1.30 (33)	50
KSV-Pg 21	83611218	grey	Pg 21	M25/P21(S)	2.40 (61.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	1.30 (33)	50
KSV-Pg 29	83611220	grey	Pg 29	M32/P29(S)	2.87 (73.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65 (42)	25
NPT version									
KSV 3/8"/9	83613250	black	3/8"	M12/P9	2.05 (52.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75 (19)	50
KSV 1/2"/16	83613256	black	1/2"	M20/P16	2.36 (60.0)	0.35 (9.0)	0.39–0.55 (10.0–14.0)	1.06 (27)	50
KSV 3/4"/21	83613258	black	3/4"	M25/P21(S)	2.76 (70.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	1.30 (33)	25
KSV 1"-/29	83613260	black	1"	M32/P29	3.15 (80.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65 (42)	25
KSV 3/8"/9	83613210	grey	3/8"	M12/P9	2.05 (52.0)	0.31 (8.0)	0.16–0.31 (4.0–8.0)	0.75 (19)	50
KSV 1/2"/16	83613216	grey	1/2"	M20/P16(S)	2.36 (60.0)	0.35 (9.0)	0.39–0.55 (10.0–14.0)	1.06 (27)	50
KSV 3/4"/21	83613218	grey	3/4"	M25/P21(S)	2.76 (70.0)	0.43 (11.0)	0.51–0.71 (13.0–18.0)	1.30 (33)	25
KSV 1"-/29	83613220	grey	1"	M32/P29(S)	3.15 (80.0)	0.43 (11.0)	0.71–0.98 (18.0–25.0)	1.65 (42)	25

Sealing ring for protection rating of IP 65, see under type DR-NBR in this chapter

IP54





## Type WSV 90° (angle plug-in fitting)

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide  
POM

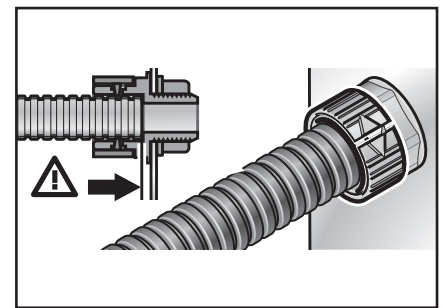
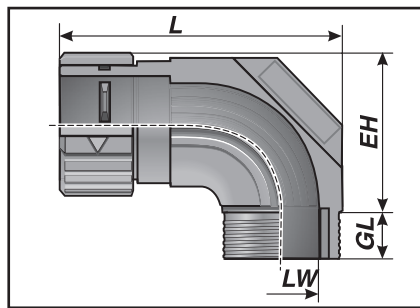


V1



IP 54  
IP 65 with sealing ring DR-NBR

- Cost reduction through simplification of assembly work insert conduit → ready
- Extremely high packing density due to small installation dimensions
- Simple opening mechanism
- The interior is rounded, allowing easy insertion of the cable into the 90° angle
- Can be opened without tools
- Protection rating IP 65 with additional sealing ring (type DR-NBR)
- Cable protection conduit can still be rotated in the fitting



WSV 90°

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	L inch (mm)	GL inch (mm)	LW inch (mm)	Pack qty.
Metric version									
WSV-M16x1.5/9	83605050	black	M16x1.5	M12/P9	1.02 (26.0)	1.65 (42.0)	0.30 (7.5)	0.39 (10.0)	50
WSV-M20x1.5/11	83605052	black	M20x1.5	M16/P11	1.14 (29.0)	1.97 (50.0)	0.31 (8.0)	0.47 (12.0)	50
WSV-M25x1.5/16	83605054	black	M25x1.5	M20/P16(S)	1.26 (32.0)	2.32 (59.0)	0.39 (10.0)	0.63 (16.0)	50
WSV-M32x1.5/21	83605056	black	M32x1.5	M25/P21(S)	1.54 (39.0)	2.72 (69.0)	0.43 (11.0)	0.87 (22.0)	25
WSV-M40x1.5/29	83605058	black	M40x1.5	M32/P29(S)	2.01 (51.0)	3.27 (83.0)	0.47 (12.0)	1.10 (28.0)	25
WSV-M50x1.5/36	83605060	black	M50x1.5	M40/P36(S)	2.76 (70.0)	4.21 (107.0)	0.59 (15.0)	1.38 (35.0)	10
WSV-M63x1.5/48	83605062	black	M63x1.5	M50/P48(S)	3.78 (96.0)	5.28 (134.0)	0.59 (15.0)	1.93 (49.0)	10
Pg version									
WSV-Pg 09	83601450	black	Pg 09	M12/P9	1.12 (28.5)	1.97 (50.0)	0.31 (8.0)	0.51 (13.0)	50
WSV-Pg 11	83601452	black	Pg 11	M16/P11	1.12 (28.5)	1.93 (49.0)	0.31 (8.0)	0.51 (13.0)	50
WSV-Pg 13.5/16	83601454	black	Pg 13.5	M20/P16(S)	1.26 (32.0)	2.32 (59.0)	0.39 (10.0)	0.63 (16.0)	50
WSV-Pg 16	83601456	black	Pg 16	M20/P16(S)	1.26 (32.0)	2.32 (59.0)	0.39 (10.0)	0.63 (16.0)	50
WSV-Pg 21	83601458	black	Pg 21	M25/P21(S)	1.52 (38.5)	2.72 (69.0)	0.45 (11.5)	0.87 (22.0)	25
WSV-Pg 29	83601460	black	Pg 29	M32/P29(S)	1.99 (50.5)	3.23 (82.0)	0.47 (12.0)	1.10 (28.0)	25
WSV-Pg 36	83601462	black	Pg 36	M40/P36(S)	2.76 (70.0)	4.17 (106.0)	0.61 (15.5)	1.38 (35.0)	10
WSV-Pg 48	83601464	black	Pg 48	M50/P48(S)	3.78 (96.0)	5.28 (134.0)	0.63 (16.0)	1.93 (49.0)	10

IP54



## Type WSV 90° (angle plug-in fitting)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	Suitable for Murrflex	EH inch (mm)	L inch (mm)	GL inch (mm)	LW inch (mm)	Pack qty.
WSV-Pg 09	83601410	grey	Pg 09	M12/P9	1.12 (28.5)	1.97 (50.0)	0.31 (8.0)	0.51 (13.0)	50
WSV-Pg 11	83601412	grey	Pg 11	M16/P11	1.12 (28.5)	1.93 (49.0)	0.31 (8.0)	0.51 (13.0)	50
WSV-Pg 13.5/16	83601414	grey	Pg 13.5	M20/P16(S)	1.26 (32.0)	2.32 (59.0)	0.39 (10.0)	0.63 (16.0)	50
WSV-Pg 16	83601416	grey	Pg 16	M20/P16(S)	1.26 (32.0)	2.32 (59.0)	0.39 (10.0)	0.63 (16.0)	50
WSV-Pg 21	83601418	grey	Pg 21	M25/P21(S)	1.52 (38.5)	2.72 (69.0)	0.45 (11.5)	0.87 (22.0)	25
WSV-Pg 29	83601420	grey	Pg 29	M32/P29(S)	1.99 (50.5)	3.23 (82.0)	0.47 (12.0)	1.10 (28.0)	25
WSV-Pg 36	83601422	grey	Pg 36	M40/P36(S)	2.76 (70.0)	4.17 (106.0)	0.61 (15.5)	1.38 (35.0)	10
WSV-Pg 48	83601424	grey	Pg 48	M50/P48(S)	3.78 (96.0)	5.28 (134.0)	0.63 (16.0)	1.93 (49.0)	10
NPT version									
WSV-NPT-3/8"/11	83602052	black	3/8"	M16/P11	1.10 (28.0)	1.93 (49.0)	0.31 (8.0)	0.51 (13.0)	50
WSV-NPT-1/2"/16	83602056	black	1/2"	M20/P16(S)	1.26 (32.0)	2.32 (59.0)	0.39 (10.0)	0.63 (16.0)	50
WSV-NPT-3/4"/21	83602058	black	3/4"	M25/P21(S)	1.54 (39.0)	2.72 (69.0)	0.39 (10.0)	0.87 (22.0)	25
WSV-NPT-1"/29	83602060	black	1"	M32/P29(S)	2.01 (51.0)	3.27 (83.0)	0.47 (12.0)	1.10 (28.0)	25
WSV-NPT-3/8"/11	83602012	grey	3/8"	M16/P11	1.10 (28.0)	1.93 (49.0)	0.31 (8.0)	0.51 (13.0)	50
WSV-NPT-1/2"/16	83602016	grey	1/2"	M20/P16(S)	1.26 (32.0)	2.32 (59.0)	0.39 (10.0)	0.63 (16.0)	50
WSV-NPT-3/4"/21	83602018	grey	3/4"	M25/P21(S)	1.54 (39.0)	2.72 (69.0)	0.39 (10.0)	0.87 (22.0)	25
WSV-NPT-1"/29	83602020	grey	1"	M32/P29(S)	2.01 (51.0)	3.27 (83.0)	0.47 (12.0)	1.10 (28.0)	25

Sealing ring for protection rating of IP 65, see under type DR-NBR in this chapter

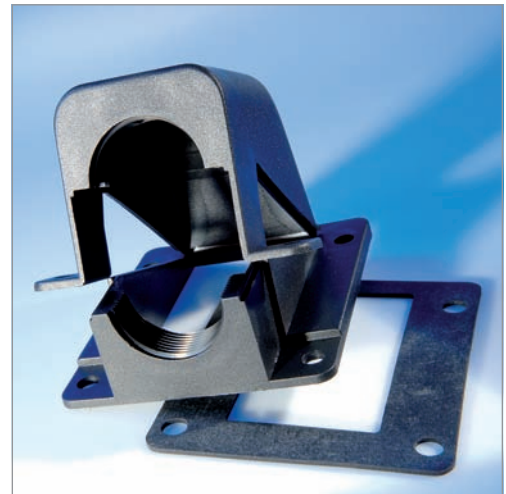
IP54







## Conduit connection bulkhead fittings



## Advantages



### Split connection

The conduit connection bulkhead fittings are manufactured from high-grade polyamide.

As the bulkhead fittings are split and have a large cut-out size, pre-assembled cables can be easily and quickly inserted into a housing. Their design means that these bulkhead fittings offer a protection rating of IP54 or IP65.

Cable protection conduits can be assembled directly. The cable protection conduits remain rotatable. The higher IP 65 protection rating is achieved in combination with a suitable conduit fitting.



- ✓ Split system
- ✓ Enables installation of pre-assembled cables
- ✓ Easy assembly
- ✓ Conduit remains rotatable
- ✓ Suitable for EW and EWX cable protection conduits

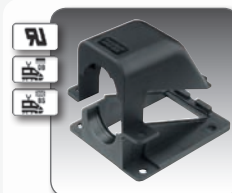
## Flange connection product range



### Type KFW

Splitable 90° flange angle connection with a metric or a Pg thread.

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### Types KFW/D and KFW/X

Splitable 90° flange angle connection for direct fixing of cable protection conduits.

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## Combination options

Conduit fittings up to conduit size M50 / Pg48			
	KFW	KFW/D	KFW/X
EF	✘	✘	✘
EW	✱	✓	✘
EWF	✱	✓	✘
EWS	✱	✓	✘
EWX	✱	✘	✓
EW-G	✱	⊙	✘
EW-HY	✱	✓	✘
EW-LS	✱	✓	✘
EW-PA	✱	✓	✘
EW-PA-LS	✱	✓	✘
EW-PA-UL	✱	✓	✘
EW-PA-EX	✱	✓	✘
EW-PAB	✱	✓	✘
EW-PAE	✱	✓	✘
EW-PAL	✱	✓	✘
EW-PAP	✱	✘	✘
EW-PP	✱	✓	✘
EW-PRF	✱	✓	✘
EW-TEF	✱	✓	✘
EWT-PA	✱	✓	✘
EWT-PP	✱	✓	✘
EWX-LS	✱	✘	✓
EWX-PA	✱	✘	✓
EWX-PA-LS	✱	✘	✓
EWX-PA-UL	✱	✘	✓
EWX-PAE	✱	✘	✓
EWX-PAE-LS	✱	✘	✓
GF	✘	✘	✘

✓ combinable

✘ not combinable

⊙ combinable to an extent (remove sheathing)

✱ in connection with an additional conduit or cable fitting

## Material data

	Material		Temperature area [°F]			Protection rating on corrugated conduit	Fire specifications UL94	UL File number E148958	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
	Fitting	Moulded seal	Min.	Max.	Short periods										
KFW	Polyamide PA6	Neoprene	-40	230	284	IP 65	V0	✓	✓	✓	✓	✓	✓	✓	✓
KFW/D	Polyamide PA6	Neoprene	-40	230	284	IP 54	V0	✓	✓	✓	✓	✓	✓	✓	✓
KFW/X	Polyamide PA6	Neoprene	-40	230	284	IP 54	V0		✓	✓	✓	✓	✓	✓	✓



# Conduit connection bulkhead fittings

## Type KFW

RoHS compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



VO



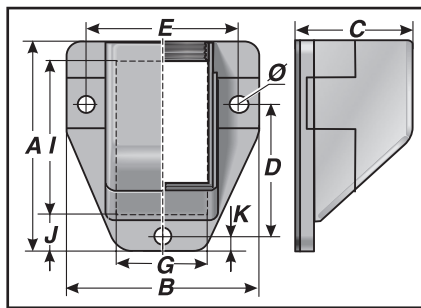
IP 65

Easy-to-open bulkhead fitting conduit and cable fittings. Supplied with gasket for flange connection.

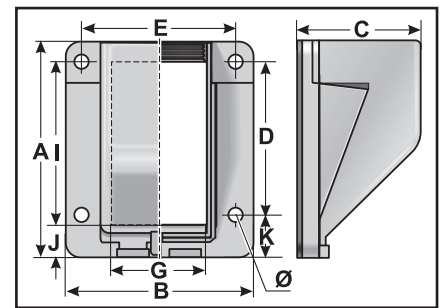
- Enables pre-assembled cables to be inserted by means of removable upper part
- Easy assembly
- High stability
- Internal thread for metric or Pg fittings



KFW



Up to M25/Pg21



From M32/Pg29

Type	Order no.	Color	Internal thread	A inch	B inch	C inch	D inch	E inch	G inch	I inch	J inch	K inch	Ø inch	Pack qty.
Metric version														
KFW-M16x1.5	83562450	black	M16x1.5	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW-M20x1.5	83562452	black	M20x1.5	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW-M25x1.5	83562454	black	M25x1.5	2.72	2.56	1.73	1.63	2.03	1.18	1.67	0.59	0.24	0.24	10
KFW-M32x1.5	83562456	black	M32x1.5	3.54	3.07	2.17	2.54	2.54	1.57	2.68	0.35	0.63	0.26	10
KFW-M40x1.5	83562458	black	M40x1.5	3.90	3.70	2.60	3.13	3.13	1.91	2.93	0.37	0.39	0.26	10
KFW-M50x1.5	83562460	black	M50x1.5	4.57	3.98	2.99	3.44	3.44	2.70	3.52	0.37	0.63	0.26	10
KFW-M16x1.5	83562410	grey	M16x1.5	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW-M20x1.5	83562412	grey	M20x1.5	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW-M25x1.5	83562414	grey	M25x1.5	2.72	2.56	1.73	1.63	2.03	1.18	1.67	0.59	0.24	0.24	10
KFW-M32x1.5	83562416	grey	M32x1.5	3.54	3.07	2.17	2.54	2.54	1.57	2.68	0.35	0.63	0.26	10
KFW-M40x1.5	83562418	grey	M40x1.5	3.90	3.70	2.60	3.13	3.13	1.91	2.93	0.37	0.39	0.26	10
KFW-M50x1.5	83562420	grey	M50x1.5	4.57	3.98	2.99	3.44	3.44	2.70	3.52	0.37	0.63	0.26	10





# Conduit connection bulkhead fittings

## Types KFW/D and KFW/X

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



V0



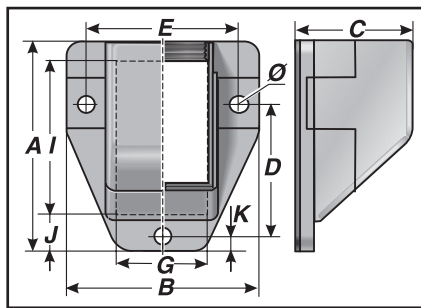
IP 54

Split 90° bulkhead fitting connection for cable protection conduits. Cable protection conduits can be mounted directly onto the bulkhead fitting without any additional fitting. The cable protection conduit can be turned in the bulkhead fitting. Large cut-out sizes make the plastic bulkhead fitting ideally suited for the installation of pre-assembled cables. Supplied with gasket for flange connection.

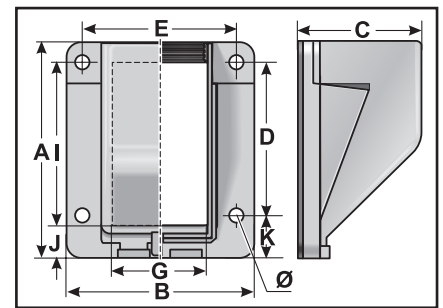
- Enables pre-assembled cables to be inserted by means of removable upper part
- Easy assembly
- Conduit remains rotatable



KFW



Up to D-21/ M25/P21



From D-29/M32/P29

Type	Order no.	Color	Suitable for Murrflex	A inch	B inch	C inch	D inch	E inch	G inch	I inch	J inch	K inch	Ø inch	Pack qty.
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For cable protection conduits with standard corrugation, type EW-xx and EWT-xx

KFW/D-11	83561850	black	M16/P11	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW/D-16	83561852	black	M20/P16(S)	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW/D-21	83561854	black	M25/P21(S)	2.72	2.56	1.73	1.63	2.03	1.18	1.67	0.59	0.24	0.24	10
KFW/D-29	83561856	black	M32/P29(S)	3.54	3.07	2.17	2.54	2.54	1.57	2.68	0.35	0.63	0.26	10
KFW/D-36	83561858	black	M40/P36(S)	3.90	3.70	2.60	3.13	3.13	1.91	2.93	0.37	0.39	0.26	10
KFW/D-48	83561860	black	M50/P48(S)	4.57	3.98	2.99	3.44	3.44	2.70	3.52	0.37	0.63	0.26	10

For cable protection conduits with high corrugation, type EWX-xx

KFW/D-11	83561810	grey	M16/P11	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW/D-16	83561812	grey	M20/P16(S)	1.93	1.85	1.38	1.14	1.46	0.89	1.06	0.43	0.18	0.17	10
KFW/D-21	83561814	grey	M25/P21(S)	2.72	2.56	1.73	1.63	2.03	1.18	1.67	0.59	0.24	0.24	10
KFW/D-29	83561816	grey	M32/P29(S)	3.54	3.07	2.17	2.54	2.54	1.57	2.68	0.35	0.63	0.26	10
KFW/D-36	83561818	grey	M40/P36(S)	3.90	3.70	2.60	3.13	3.13	1.91	2.93	0.37	0.39	0.26	10
KFW/D-48	83561820	grey	M50/P48(S)	4.57	3.98	2.99	3.44	3.44	2.70	3.52	0.37	0.63	0.26	10

For cable protection conduits with high corrugation, type EWX-xx

KFW/X M25/P21	83562654	black	M25/P21	2.72	2.56	1.73	1.63	2.03	1.18	1.67	0.59	0.24	0.24	10
KFW/X M32/P29	83562656	black	M32/P29	3.54	3.07	2.17	2.54	2.54	1.57	2.68	0.35	0.63	0.26	10
KFW/X M40/P36	83562658	black	M40/P36	3.90	3.70	2.60	3.13	3.13	1.91	2.93	0.37	0.39	0.26	10
KFW/X M50/P48	83562660	black	M50/P48	4.57	3.98	2.99	3.44	3.44	2.70	3.52	0.37	0.63	0.26	10

KFW/X M25/P21	83562614	grey	M25/P21	2.72	2.56	1.73	1.63	2.03	1.18	1.67	0.59	0.24	0.24	10
KFW/X M32/P29	83562616	grey	M32/P29	3.54	3.07	2.17	2.54	2.54	1.57	2.68	0.35	0.63	0.26	10
KFW/X M40/P36	83562618	grey	M40/P36	3.90	3.70	2.60	3.13	3.13	1.91	2.93	0.37	0.39	0.26	10
KFW/X M50/P48	83562620	grey	M50/P48	4.57	3.98	2.99	3.44	3.44	2.70	3.52	0.37	0.63	0.26	10



## m-jumbo conduit connection





## Advantages



### Large connections

The m-jumbo family consists of conduit connections manufactured from high-grade polyamide and are designed for large conduits of sizes NW 70 and NW 95.

The connection has protection rating IP 52. In addition to this the conduit remains rotatable in the fitting.

The protection rating can be easily increased to IP 65 using an additional sealing ring.

The cable protection conduit can be easily fixed to the conduit connection by means of two half shells.

The connections are inherently stable and also provide a high level of tear-out strength.



- ✓ Easy assembly
- ✓ High protection class
- ✓ Conduit remains rotatable in the fitting
- ✓ Straight and 90° versions
- ✓ High tear-out strength

## m-jumbo conduit connection product range



**Type SA-Jumbo  
(flange connection)**

Straight flange connection for jumbo cable protection conduits.

Page 150



**Type KFW-Jumbo  
(90° flange connection)**

Right-angled flange connection for jumbo cable protection conduits.

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## Combination options

	Conduit connection from NW 70	
	SA-Jumbo	KFW-Jumbo
EF	X	X
EW	✓	✓
EWf	✓	✓
EWS	✓	✓
EWX	✓	✓
EW-G	X	X
EW-HY	✓	✓
EW-LS	✓	✓
EW-PA	✓	✓
EW-PA-LS	✓	✓
EW-PA-UL	✓	✓
EW-PA-EX	✓	✓
EW-PAB	✓	✓
EW-PAE	✓	✓
EW-PAL	✓	✓
EW-PAP	X	X
EW-PP	✓	✓
EW-PRF	✓	✓
EW-TEF	✓	✓
EWT-PA	✓	✓
EWT-PP	✓	✓
EWX-LS	✓	✓
EWX-PA	✓	✓
EWX-PA-LS	✓	✓
EWX-PA-UL	✓	✓
EWX-PAE	✓	✓
EWX-PAE-LS	✓	✓
GF	X	X

- ✓ combinable
- X not combinable

## Material data

	Material	Temperature area [°F]			Protection rating on corrugated conduit	Fire specifications UL94	UL File number E148958	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
		Min.	Max.	Short periods										
SA-Jumbo	Polyamide PA6	-40	230	284	IP 52 IP 65 with additional sealing ring	V0	✓	✓	✓	✓	✓	✓	✓	
KFW-Jumbo	Polyamide PA6	-40	230	284	IP 52 IP 65 with additional sealing ring	V0	✓	✓	✓	✓	✓	✓	✓	



## Type SA-Jumbo (flange connection)

RoHS  
compliant

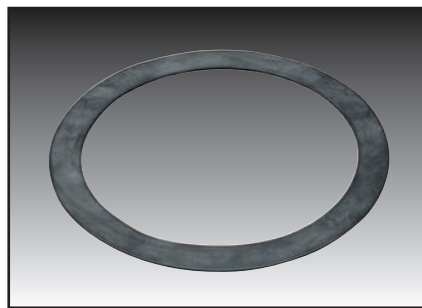
- 40 to 230 °F  
transient 284 °F
- Mod. polyamide
- V0
- IP 52  
IP 65 with DS seal

Straight flange connection for Jumbo cable protection conduit

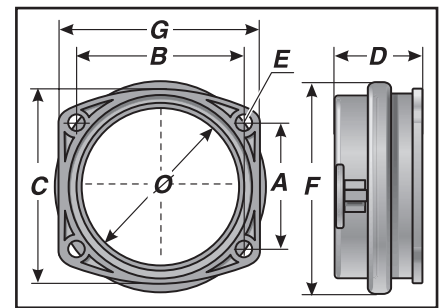
- Split ring makes assembly easy
- High tear-out strength thanks to inherently stable connection ring
- No sealing → conduit turns in the fitting
- With sealing → higher level of protection
- O-ring for flange/housing included in delivery



SA-Jumbo







DS



Type	Order no.	Color	Suitable for Murrflex	A inch	B inch	C inch	D inch	E inch	F inch	G inch	Ø inch	Pack qty.
SA 70	83681014	black	70	2.36	3.15	3.70	2.05	0.30	4.17	3.78	2.76	1
SA 95	83681016	black	95	2.91	4.25	4.96	2.05	0.30	5.20	4.96	3.74	1
SA 70	83681010	grey	70	2.36	3.15	3.70	2.05	0.30	4.17	3.78	2.76	1
SA 95	83681012	grey	95	2.91	4.25	4.96	2.05	0.30	5.20	4.96	3.74	1
Seal for IP 65 (conduit connection/fitting):												
DS 70	83101238											1
DS 95	83101240											1

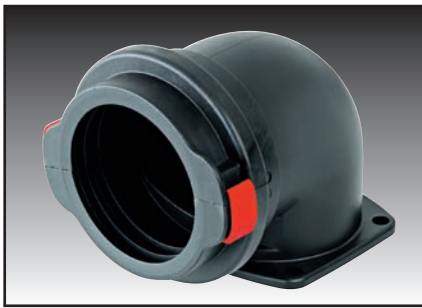
## Type KFW-Jumbo (90° flange connection)

RoHS  
compliant

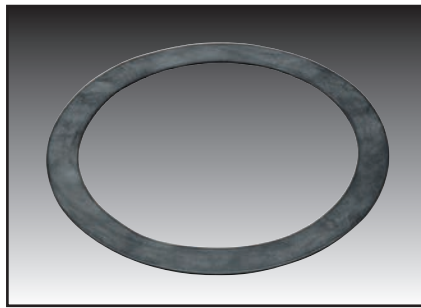
-  -40 to 230 °F  
transient 284 °F
-  Mod. polyamide
-  V0
-  IP 52  
IP 65 with DS seal

Angled flange connection for Jumbo cable protection conduit

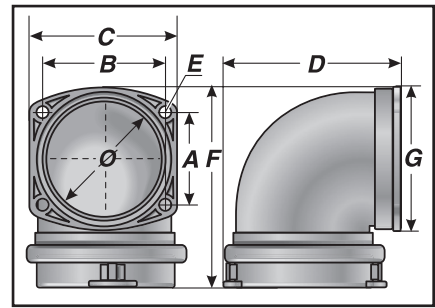
- Split ring makes assembly easy
- High tear-out strength thanks to inherently stabile connection ring
- No sealing → conduit turns in the fitting
- With sealing → higher level of protection
- O-ring for flange/housing included in delivery



KFW-Jumbo



DS

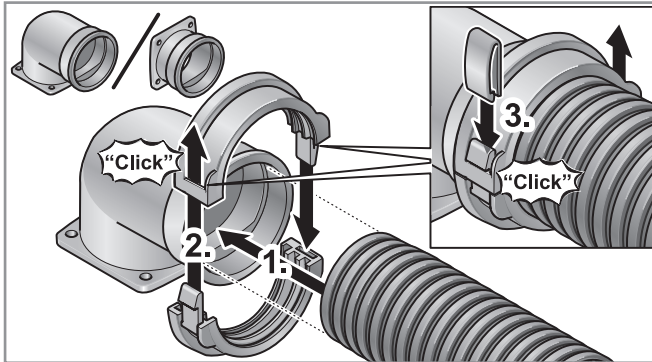


Type	Order no.	Color	Suitable for Murrflex	A inch	B inch	C inch	D inch	E inch	F inch	G inch	Ø inch	Pack qty.
KFW-70	83681213	black	70	2.36	3.15	3.78	4.33	0.28	5.39	3.70	3.03	1
KFW-95	83681214	black	95	2.91	4.25	5.00	5.67	0.28	6.57	5.04	4.37	1
KFW-70	83681210	grey	70	2.36	3.15	3.78	4.33	0.28	5.39	3.70	3.03	1
KFW-95	83681212	grey	95	2.91	4.25	5.00	5.67	0.28	6.57	5.04	4.37	1

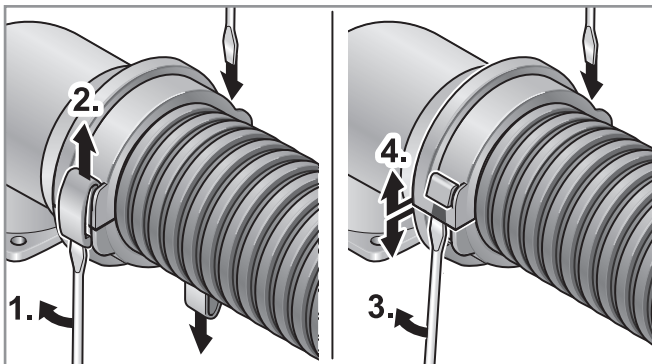
Seal for IP 65 (conduit connection/fitting):

DS 70	83101238
DS 95	83101240

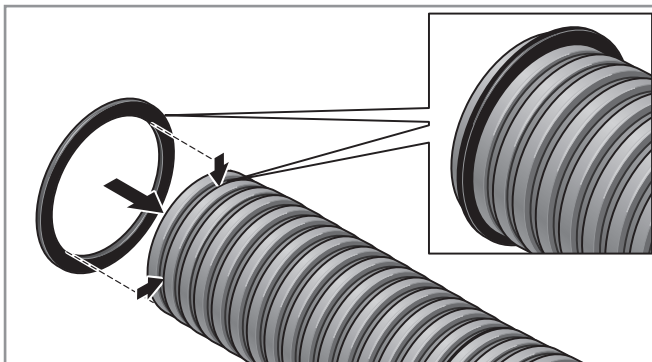
## Assembly



Insert cable protection conduit into fitting. Position and fix half shells onto the fitting. Fit locking mechanisms on both sides.



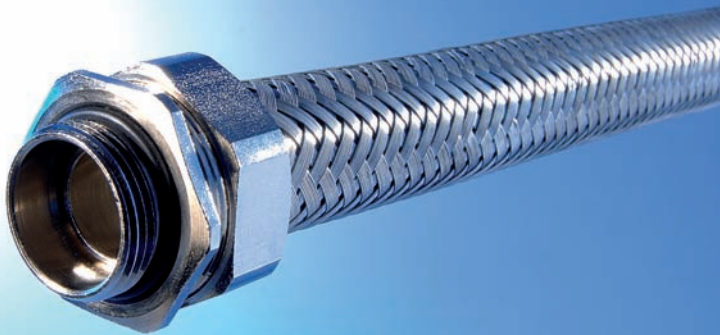
Loosen and remove locking mechanisms on both sides with an appropriate tool. Loosen latching and remove half shells. Remove cable protection conduit from the fitting.



An addition sealing ring is needed on the cable protection conduit to achieve a protection rating of IP 65. To this end pull the seal onto the first recess on the cable protection conduit. Thereafter assemble according to step 1.



## Special fitting



## Advantages



## Special Fittings

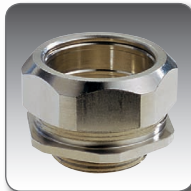
The special fittings are special solutions for cable protection conduits encased with metal braiding. For separable corrugated pipes with standard corrugations or closed cable protection conduits.

They are characterised by particular features such as their split design or the discharging of sheath currents.



- ✓ Split version
- ✓ EMC discharge
- ✓ Stable design
- ✓ Individual

## Special fittings product range



**Type EH-EMV**

Metal fitting for the encased cable protection conduit type EW-PAP for discharge of sheath currents.

Page 160



**Type AT**

Split conduit connection to fix cable protection conduits to switch cabinets.

Page 161



## Combination options

	EH-EMV	AT
EF	X	X
EW	X	✓
EWf	X	✓
EWS	X	✓
EWX	X	✓
EW-G	X	⋮
EW-HY	X	✓
EW-LS	X	✓
EW-PA	X	✓
EW-PA-LS	X	✓
EW-PA-UL	X	✓
EW-PA-EX	X	✓
EW-PAB	X	✓
EW-PAE	X	✓
EW-PAL	X	✓
EW-PAP	✓	X
EW-PP	X	✓
EW-PRF	X	✓
EW-TEF	X	✓
EWT-PA	X	✓
EWT-PP	X	✓
EWX-LS	X	✓
EWX-PA	X	✓
EWX-PA-LS	X	✓
EWX-PA-UL	X	✓
EWX-PAE	X	✓
EWX-PAE-LS	X	✓
GF	X	X

✓ combinable

X not combinable



⋮ combinable to an extent (remove sheathing)

## Material data

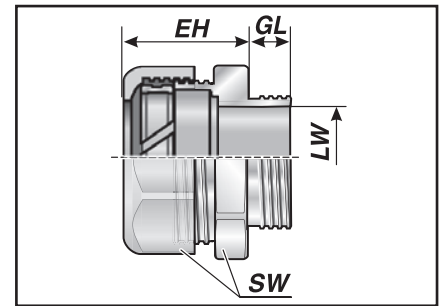
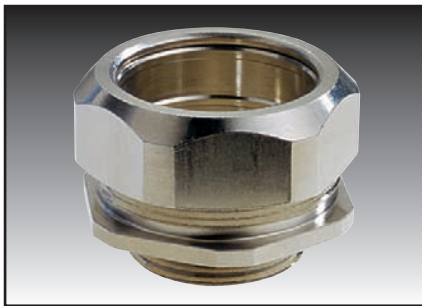
	Material	Temperature area [°F]			Protection rating on corrugated conduit	Fire specifications UL94	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
		Min.	Max.	Short periods									
EH-EMV	Brass nickel-plated				IP 40								✓
AT	Polyamide PA6	-40	230	284		V0	✓	✓	✓	✓	✓	✓	✓



## Type EH-EMV RoHS compliant

 Brass, nickel-plated  
 IP 40

Metal fitting for sheathed cable protection conduit type EW-PAP. This fitting discharges sheath currents on the cable protection conduit.  
 • For use with EMV applications



EH-EMV

Type	Order no.	Connecting thread	Suitable for EW-PAP	LW inch (mm)	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
EH-EMV 09	83521010	Pg 09	M12/P9	0.47 (12.0)	0.67 (17.0)	0.24 (6.0)	0.87 (22.0)	50
EH-EMV 11	83521012	Pg 11	M16/P11	0.61 (15.5)	0.71 (18.0)	0.24 (6.0)	1.06 (27.0)	50
EH-EMV 16	83521014	Pg 16	M20/P16(S)	0.73 (18.5)	0.79 (20.0)	0.28 (7.0)	1.22 (31.0)	50
EH-EMV 21	83521016	Pg 21	M25/P21(S)	0.94 (24.0)	0.91 (23.0)	0.28 (7.0)	1.57 (40.0)	25
EH-EMV 29	83521018	Pg 29	M32/P29(S)	1.30 (33.0)	1.02 (26.0)	0.28 (7.0)	1.89 (48.0)	25
EH-EMV 36	83521020	Pg 36	M40/P36	1.69 (43.0)	1.18 (30.0)	0.30 (7.5)	2.36/2.24 (60.0/57.0)	10
EH-EMV 48	83521022	Pg 48	M50/P48	2.13 (54.0)	1.26 (32.0)	0.43 (11.0)	3.07 (78.0)	5

## Type AT

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



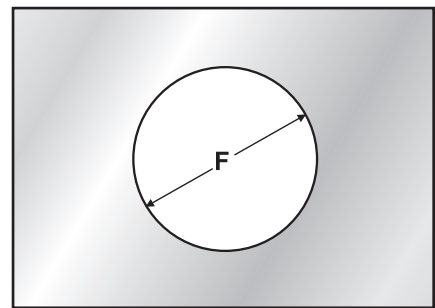
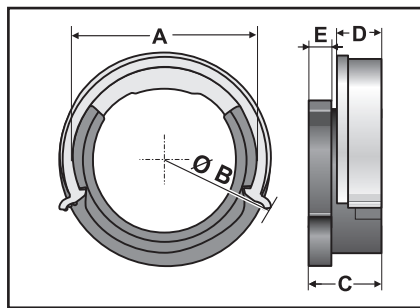
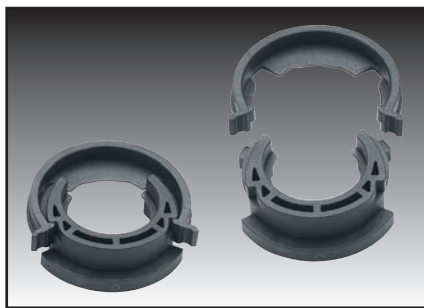
Mod. polyamide 6



V0

Split conduit connection to fix cable protection conduits to switch cabinets.  
Suitable for switch cabinets with a wall thickness of 0.06–0.08 inch (1.5–2.0 mm).

- Quick and easy to assemble and disassemble without tools.
- Conduits can still be rotated
- Compact construction
- Insertion of pre-assembled cables through split internal and external ring



AT

Type	Order no.	Color	suitable for Murrflex	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)	E inch (mm)	F inch (mm)	Pack qty.
AT M20/P09	83651050	black	M12/P9	0.80 (20.20)	1.38 (35.00)	0.63 (16.00)	0.37 (9.50)	0.20 (5.00)	0.81 (20.50)	50
AT M25/P11	83651052	black	M16/P11	0.99 (25.20)	1.59 (40.50)	0.63 (16.00)	0.37 (9.50)	0.20 (5.00)	1.00 (25.50)	50
AT M32/P16	83651054	black	M20/P16	1.27 (32.20)	1.89 (48.00)	0.68 (17.20)	0.41 (10.3)	0.21 (5.40)	1.28 (32.50)	50
AT M40/P21	83651056	black	M25/P21	1.58 (40.20)	2.28 (58.00)	0.70 (17.90)	0.39 (10.0)	0.25 (6.40)	1.59 (40.50)	50
AT M50/P29	83651058	black	M32/P29	1.98 (50.20)	2.68 (68.00)	0.70 (17.90)	0.39 (10.0)	0.25 (6.40)	1.99 (50.50)	25
AT M50/P36	83651060	black	M40/P36	1.98 (50.20)	2.68 (68.00)	0.85 (21.50)	0.47 (12.0)	0.31 (8.00)	1.99 (50.50)	10
AT M63/P48	83651062	black	M50/P48	2.49 (63.20)	3.23 (82.00)	0.98 (24.80)	0.60 (15.3)	0.31 (8.00)	2.50 (63.50)	10
AT M20/P09	83651010	grey	M12/P9	0.80 (20.20)	1.38 (35.00)	0.63 (16.00)	0.37 (9.50)	0.20 (5.00)	0.81 (20.50)	50
AT M25/P11	83651012	grey	M16/P11	0.99 (25.20)	1.59 (40.50)	0.63 (16.00)	0.37 (9.50)	0.20 (5.00)	1.00 (25.50)	50
AT M32/P16	83651014	grey	M20/P16	1.27 (32.20)	1.89 (48.00)	0.68 (17.20)	0.41 (10.3)	0.21 (5.40)	1.28 (32.50)	50
AT M40/P21	83651016	grey	M25/P21	1.58 (40.20)	2.28 (58.00)	0.70 (17.90)	0.39 (10.0)	0.25 (6.40)	1.59 (40.50)	50
AT M50/P29	83651018	grey	M32/P29	1.98 (50.20)	2.68 (68.00)	0.70 (17.90)	0.39 (10.0)	0.25 (6.40)	1.99 (50.50)	25
AT M50/P36	83651020	grey	M40/P36	1.98 (50.20)	2.68 (68.00)	0.85 (21.50)	0.47 (12.0)	0.31 (8.00)	1.99 (50.50)	10
AT M63/P48	83651022	grey	M50/P48	2.49 (63.20)	3.23 (82.00)	0.98 (24.80)	0.60 (15.3)	0.31 (8.00)	2.50 (63.50)	10





## Cable protection conduit holders





## Advantages



## Holder systems

The various holder systems are manufactured from high-grade polyamide and polycarbonate.

The new HS family offers the facility to arrange holders in rows as well as stacking them.


A snap-on mechanism enables the actual conduit holders to be combined with a variety of fastening plates (feet). An optional bracket offers additional safety under high tear-out forces.

The proven holders remain in our product range. However, they can easily be substituted by the new HS family. Compatibility is guaranteed.



- ✓ Stackable
- ✓ Arrangable in rows
- ✓ Variable
- ✓ Snap-in conduits
- ✓ Different types

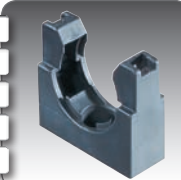
## Cable protection conduit holders product range



**Type HS (conduit holder)**

Conduit holder system made from polyamide, arrangerable in rows and stacks. The holder can be screwed on directly.


Page 166



**Type UH**

For fixing cable protection conduits to plants and machines.


Page 169



**Type HS (accessories, fixing foot)**

HS/F fixing foot (as UHF).  
HS/C fixing foot (as KAF).


Page 167



**Type UHG**

For fixing cable protection conduits to plants and machines.

Page 170



**Type HS (accessories, bracket, fixing foot)**

HS/B bracket for HS/U holder for higher tear-out forces HS/S Fixing foot (as USH).

Page 168



**Type BL (clamping bracket for types UH and UHG)**

Optional clamping bracket for UH and UHG.

Page 171



**Type UHF**

For quick and easy connection of control cabinet to door.


Page 172



**Type USH**

For quick and easy connection of control cabinet to door.

Page 173



**Type EF/B**

Holder for rectangular conduit type EF.

Page 174



## Combination options

	HS/x	UH	UHG	UHF	USH	EF/B
EF	✗	✗	✗	✗	✗	✓
EW	✓	✓	✓	✓	✓	✗
EWf	✓	✓	✓	✓	✓	✗
EWS	✓	✓	✓	✓	✓	✗
EWX	✓	✓	✓	✓	✓	✗
EW-G	⚡	⚡	⚡	⚡	⚡	✗
EW-HY	✓	✓	✓	✓	✓	✗
EW-LS	✓	✓	✓	✓	✓	✗
EW-PA	✓	✓	✓	✓	✓	✗
EW-PA-LS	✓	✓	✓	✓	✓	✗
EW-PA-UL	✓	✓	✓	✓	✓	✗
EW-PA-EX	✓	✓	✓	✓	✓	✗
EW-PAB	✓	✓	✓	✓	✓	✗
EW-PAE	✓	✓	✓	✓	✓	✗
EW-PAL	✓	✓	✓	✓	✓	✗
EW-PAP	✓	✓	✓	✓	✓	✗
EW-PP	✓	✓	✓	✓	✓	✗
EW-PRF	✓	✓	✓	✓	✓	✗
EW-TEF	✓	✓	✓	✓	✓	✗
EWT-PA	✓	✓	✓	✓	✓	✗
EWT-PP	✓	✓	✓	✓	✓	✗
EWX-LS	✓	✓	✓	✓	✓	✗
EWX-PA	✓	✓	✓	✓	✓	✗
EWX-PA-LS	✓	✓	✓	✓	✓	✗
EWX-PA-UL	✓	✓	✓	✓	✓	✗
EWX-PAE	✓	✓	✓	✓	✓	✗
EWX-PAE-LS	✓	✓	✓	✓	✓	✗
GF	✗	✗	✗	✗	✗	✗

✓ combinable

✗ not combinable

⚡ combinable to an extent (remove sheathing)

## Material data

	Material	Temperature area [°F]			Fire specifications UL94	UL File number E148958	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
		Min.	Max.	Short periods									
HS/x	Polyamide PA6	-40	230	284			✓	✓	✓	✓	✓	✓	✓
UH	Polyamide PA6	-40	230	284		✓	✓	✓	✓	✓	✓	✓	✓
UHG	Polyamide PA6	-40	230	284			✓	✓	✓	✓	✓	✓	✓
BL	Polyamide PA6	-40	230	284		✓	✓	✓	✓	✓	✓	✓	✓
UHF	Polyamide PA6	-40	230	284		✓	✓	✓	✓	✓	✓	✓	✓
USH	Polycarbonate	-22	212			✓	✓	✓	✓	✓	✓	✓	✓
EF/B	Polyamide PA6	-40	230	284			✓	✓	✓	✓	✓	✓	✓



# Cable protection conduit holders

## Type HS (conduit holder)

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



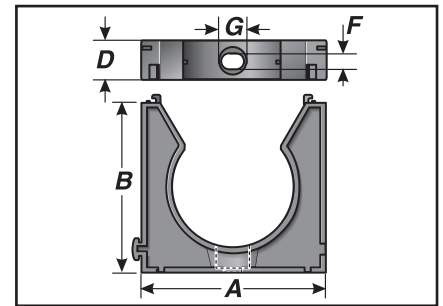
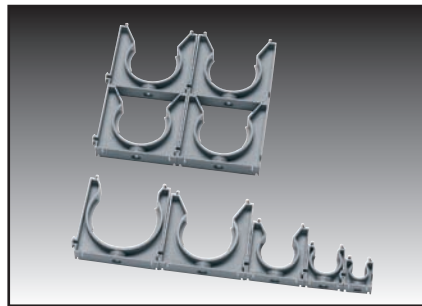
Mod. polyamide



VO

Conduit holder system made from polyamide, arrangerable in rows and stacks. The holder can be screwed on directly. Optional accessories enable the bracket to be adapted to a wide variety of installation situations.

- Flexible system
- Stackable
- Arrangerable in rows
- Compatible with single holder types UH, UHF and USH



HS/U

Type	Order no.	Color	Suitable for Murrflex	A inch (mm)	B inch (mm)	D inch (mm)	F Ø inch (Ø mm)	G Ø inch (Ø mm)	Pack qty.
Conduit holder									
suitable for Murrflex EW and EWX									
HS/U 07	83631052	black	M10/P07	0.85 (21.5)	0.83 (21.0)	0.55 (14.0)	0.18 (4.50)	0.31 (8.0)	100
HS/U 09	83631054	black	M12/P09	0.85 (21.5)	0.83 (21.0)	0.55 (14.0)	0.18 (4.50)	0.31 (8.0)	100
HS/U 11	83631056	black	M16/P11	1.10 (28.0)	1.14 (29.0)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	100
HS/U 16	83631060	black	M20/P16	1.10 (28.0)	1.14 (29.0)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	100
HS/U 21	83631062	black	M25/P21	1.69 (43.0)	1.67 (42.4)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50
HS/U 29	83631064	black	M32/P29	1.69 (43.0)	1.67 (42.4)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50
HS/U 36	83631066	black	M40/P36	2.50 (63.5)	2.26 (57.5)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50
HS/U 48	83631068	black	M50/P48	2.50 (63.5)	2.46 (62.5)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50
HS/U 07	83631012	grey	M10/P07	0.85 (21.5)	0.83 (21.0)	0.55 (14.0)	0.18 (4.50)	0.31 (8.0)	100
HS/U 09	83631014	grey	M12/P09	0.85 (21.5)	0.83 (21.0)	0.55 (14.0)	0.18 (4.50)	0.31 (8.0)	100
HS/U 11	83631016	grey	M16/P11	1.10 (28.0)	1.14 (29.0)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	100
HS/U 16	83631020	grey	M20/P16	1.10 (28.0)	1.14 (29.0)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	100
HS/U 21	83631022	grey	M25/P21	1.69 (43.0)	1.67 (42.4)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50
HS/U 29	83631024	grey	M32/P29	1.69 (43.0)	1.67 (42.4)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50
HS/U 36	83631026	grey	M40/P36	2.50 (63.5)	2.26 (57.5)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50
HS/U 48	83631028	grey	M50/P48	2.50 (63.5)	2.46 (62.5)	0.55 (14.0)	0.22 (5.50)	0.39 (10.0)	50

FAR / ABD authorization for color grey only.

## Type HS (accessories)

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide

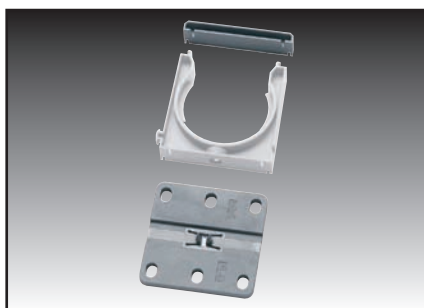


V0

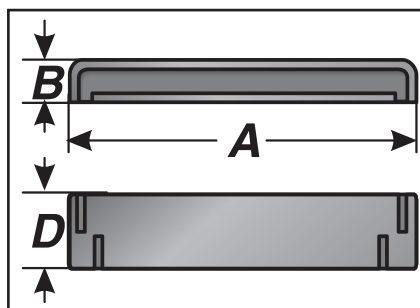
HS/B → Bracket for HS/U holder for higher tear-out forces.

HS/S → HS/S Fixing foot (as USH). HS/U conduit holder is simply snapped on.

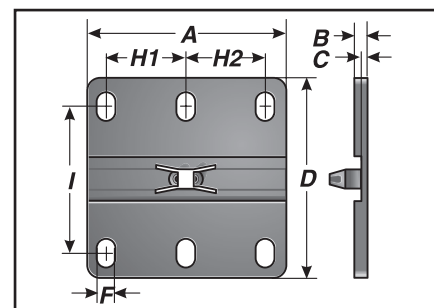
- Flexible system
- Stackable
- Arrangable in rows
- Compatible with single holder types UH, UHF and USH



HS/B HS/S



HS/B



HS/S

Type	Order no.	Color	Suitable for holder	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)	F inch (Ø mm)	H1/H2 inch (mm)	I inch (mm)	hole number (F)	Pack qty.
<b>Clamping bracket</b>												
HS/B 07-09	83631250	black	HS/U 07-09	0.85 (21.5)	0.20 (5.0)	–	0.55 (14.0)	–	–	–	–	100
HS/B 11-16	83631252	black	HS/U 11-16	1.10 (28.0)	0.20 (5.0)	–	0.55 (14.0)	–	–	–	–	100
HS/B 21-29	83631254	black	HS/U 21-29	1.69 (43.0)	0.24 (6.0)	–	0.55 (14.0)	–	–	–	–	50
HS/B 36-48	83631256	black	HS/U 36-48	2.50 (63.5)	0.28 (7.0)	–	0.55 (14.0)	–	–	–	–	50
HS/B 07-09	83631210	grey	HS/U 07-09	0.85 (21.5)	0.20 (5.0)	–	0.55 (14.0)	–	–	–	–	100
HS/B 11-16	83631212	grey	HS/U 11-16	1.10 (28.0)	0.20 (5.0)	–	0.55 (14.0)	–	–	–	–	100
HS/B 21-29	83631214	grey	HS/U 21-29	1.69 (43.0)	0.24 (6.0)	–	0.55 (14.0)	–	–	–	–	50
HS/B 36-48	83631216	grey	HS/U 36-48	2.50 (63.5)	0.28 (7.0)	–	0.55 (14.0)	–	–	–	–	50
<b>Foot, type USH</b>												
HS/S 07-09	83631450	black	HS/U 07-09	0.87 (22.0)	0.2 (5.0)	0.1 (2.50)	1.69 (43.0)	0.24 (6.0)	0.49/-	1.10 (28.0)	4	100
HS/S 11-16	83631452	black	HS/U 11-16	1.10 (28.0)	0.2 (5.0)	0.1 (2.50)	1.69 (43.0)	0.24 (6.0)	0.49/-	1.10 (28.0)	4	100
HS/S 21-29	83631454	black	HS/U 21-29	1.69 (43.0)	0.2 (5.0)	0.1 (2.50)	1.69 (43.0)	0.24 (6.0)	0.49/0.49	1.10 (28.0)	6	50
HS/S 36-49	83631456	black	HS/U 36-48	2.48 (63.0)	0.2 (5.0)	0.1 (2.50)	2.48 (63.0)	0.24 (6.0)	0.98/0.98	1.85 (47.0)	6	50
HS/S 07-09	83631410	grey	HS/U 07-09	0.87 (22.0)	0.2 (5.0)	0.1 (2.50)	1.69 (43.0)	0.24 (6.0)	0.49/-	1.10 (28.0)	4	100
HS/S 11-16	83631412	grey	HS/U 11-16	1.10 (28.0)	0.2 (5.0)	0.1 (2.50)	1.69 (43.0)	0.24 (6.0)	0.49/-	1.10 (28.0)	4	100
HS/S 21-29	83631414	grey	HS/U 21-29	1.69 (43.0)	0.2 (5.0)	0.1 (2.50)	1.69 (43.0)	0.24 (6.0)	0.49/0.49	1.10 (28.0)	6	50
HS/S 36-49	83631416	grey	HS/U 36-48	2.48 (63.0)	0.2 (5.0)	0.1 (2.50)	2.48 (63.0)	0.24 (6.0)	0.98/0.98	1.85 (47.0)	6	50



# Cable protection conduit holders

## Type HS (accessories)

RoHS compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



VO

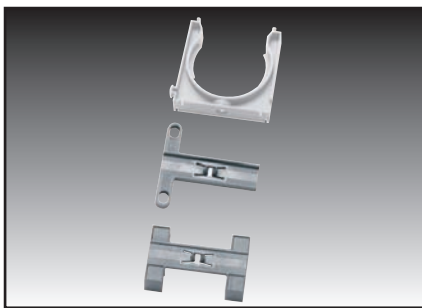
HS/S → fixing foot (as UHF).

HS/U holder is simply snapped onto the foot.

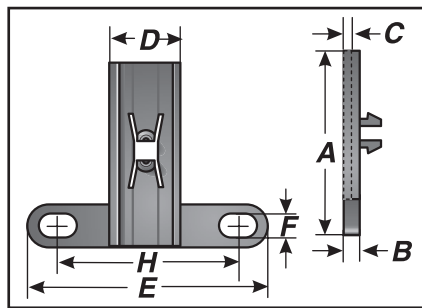
HS/S → Fixing foot (as KAF). Foot can be snapped onto top hat and C-rails.

HS/U holder is simply snapped onto the foot.

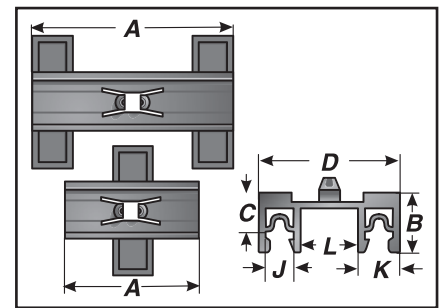
- Flexible system
- Stackable
- Arrangable in rows
- Compatible with single holder types UH, UHF and USH



HS/F HS/C



HS/F



HS/C

Type	Order no.	Color	Suitable for holder	A inch	B inch	C inch	D inch	E inch	F Ø inch	H inch	J inch	K inch	L inch	Pack qty.
Foot, type UHF														
HS/F 07-09	83631650	black	HS/U 07-09	0.87	0.20	0.10	0.71	1.61	0.24	1.10	-	-	-	100
HS/F 11-16	83631652	black	HS/U 11-16	1.10	0.20	0.10	0.71	1.61	0.24	1.10	-	-	-	100
HS/F 21-29	83631654	black	HS/U 21-29	1.69	0.20	0.10	0.71	1.61	0.24	1.10	-	-	-	50
HS/F 36-49	83631656	black	HS/U 36-48	2.48	0.20	0.10	0.71	2.36	0.24	1.85	-	-	-	50
Foot, type KAF														
HS/F 07-09	83631610	grey	HS/U 07-09	0.87	0.20	0.10	0.71	1.61	0.24	1.10	-	-	-	100
HS/F 11-16	83631612	grey	HS/U 11-16	1.10	0.20	0.10	0.71	1.61	0.24	1.10	-	-	-	100
HS/F 21-29	83631614	grey	HS/U 21-29	1.69	0.20	0.10	0.71	1.61	0.24	1.10	-	-	-	50
HS/F 36-49	83631616	grey	HS/U 36-48	2.48	0.20	0.10	0.71	2.36	0.24	1.85	-	-	-	50
Holder, type UHF														
HS/C 07-09	83631850	black	HS/U 07-09	0.87	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	100
HS/C 11-16	83631852	black	HS/U 11-16	1.10	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	100
HS/C 21-29	83631854	black	HS/U 21-29	1.69	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	50
HS/C 36-49	83631856	black	HS/U 36-48	2.48	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	50
Holder, type KAF														
HS/C 07-09	83631810	grey	HS/U 07-09	0.87	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	100
HS/C 11-16	83631812	grey	HS/U 11-16	1.10	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	100
HS/C 21-29	83631814	grey	HS/U 21-29	1.69	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	50
HS/C 36-49	83631816	grey	HS/U 36-48	2.48	0.65	0.42	1.56	-	-	-	0.37	0.54	0.48	50



## Type UH

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



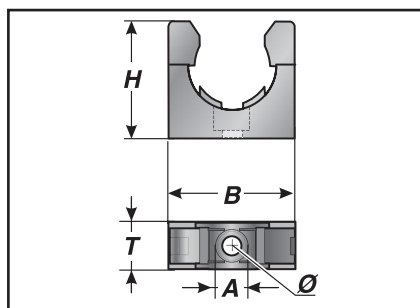
Mod. polyamide



VO

Fixing cable protection conduits to plants and machines.

- Quick assembly thanks to single-hole fixing
- Simply snap in conduits
- Optimum connection of conduit to holder thanks to double webs of holder
- Optional BL bracket for applications with high stresses



UH

Type	Order no.	Color	Suitable for Murrflex	B inch (mm)	H inch (mm)	T inch (mm)	A inch (mm)	Ø inch (mm)	Pack qty.
suitable for Murrflex EW and EWX									
UH 07	83621210	black	M10/P7	1.14 (29.0)	0.91 (23.0)	0.43 (11.0)	0.30 (7.50)	0.16 (4.0)	100
UH 09/M4	83621212	black	M12/P9	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.16 (4.0)	100
UH 09/M5	83621213	black	M12/P9	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.20 (5.0)	100
UH 11/M4	83621214	black	M16/P11	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.16 (4.0)	100
UH 11/M5	83621215	black	M16/P11	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.20 (5.0)	100
UH 16/M5	83621216	black	M20/P16(S)	1.38 (35.0)	1.18 (30.0)	0.59 (15.0)	0.41 (10.5)	0.20 (5.0)	100
UH 16/M6	83621217	black	M20/P16(S)	1.38 (35.0)	1.18 (30.0)	0.59 (15.0)	0.41 (10.5)	0.24 (6.0)	100
UH 21	83621218	black	M25/P21(S)	1.65 (42.0)	1.50 (38.0)	0.63 (16.0)	0.43 (11.0)	0.24 (6.0)	100
UH 29	83621220	black	M32/P29(S)	2.01 (51.0)	1.69 (43.0)	0.63 (16.0)	0.45 (11.5)	0.24 (6.0)	50
UH 36	83621222	black	M40/P36(S)	2.40 (61.0)	2.01 (51.0)	0.71 (18.0)	0.53 (13.5)	0.24 (6.0)	50
UH 48	83621224	black	M50/P48(S)	2.91 (74.0)	2.52 (64.0)	0.75 (19.0)	0.53 (13.5)	0.24 (6.0)	50
UH 07	83621110	grey	M10/P7	1.14 (29.0)	0.91 (23.0)	0.43 (11.0)	0.30 (7.50)	0.16 (4.0)	100
UH 09/M4	83621112	grey	M12/P9	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.16 (4.0)	100
UH 09/M5	83621113	grey	M12/P9	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.20 (5.0)	100
UH 11/M4	83621114	grey	M16/P11	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.16 (4.0)	100
UH 11/M5	83621115	grey	M16/P11	1.18 (30.0)	0.91 (23.0)	0.49 (12.5)	0.33 (8.50)	0.20 (5.0)	100
UH 16/M5	83621116	grey	M20/P16(S)	1.38 (35.0)	1.18 (30.0)	0.59 (15.0)	0.41 (10.5)	0.20 (5.0)	100
UH 16/M6	83621117	grey	M20/P16(S)	1.38 (35.0)	1.18 (30.0)	0.59 (15.0)	0.41 (10.5)	0.24 (6.0)	100
UH 21	83621118	grey	M25/P21(S)	1.65 (42.0)	1.50 (38.0)	0.63 (16.0)	0.43 (11.0)	0.24 (6.0)	100
UH 29	83621120	grey	M32/P29(S)	2.01 (51.0)	1.69 (43.0)	0.63 (16.0)	0.45 (11.5)	0.24 (6.0)	50
UH 36	83621122	grey	M40/P36(S)	2.40 (61.0)	2.01 (51.0)	0.71 (18.0)	0.53 (13.5)	0.24 (6.0)	50
UH 48	83621124	grey	M50/P48(S)	2.91 (74.0)	2.52 (64.0)	0.75 (19.0)	0.53 (13.5)	0.24 (6.0)	50
FAR / ABD authorization for color grey only.									



# Cable protection conduit holders

## Type UHG

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



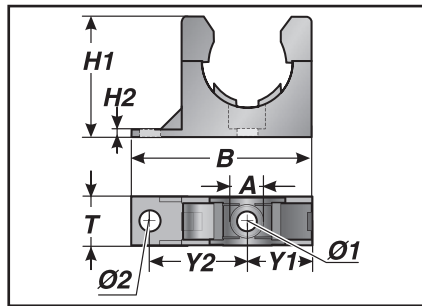
Mod. polyamide



V0

Fixing cable protection conduits to plants and machines.

- The additional plate protects the holder against torsion
- Simply snap in conduits
- Optimum connection of conduit to holder thanks to double grooves in the holder
- Optional BL bracket for applications with high stresses



UHG

Type	Order no.	Color	Suitable for Murrflex	A inch	B inch	H1/2 inch	T inch	Y1/2 inch	Ø 1/2 inch	Pack qty.
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suitable for Murrflex EW and EWX

UHG 09	83621250	black	M12/P9	0.30	1.81	0.91/0.08	0.49	0.59/0.96	0.17/0.24	100
UHG 11	83621252	black	M16/P11	0.30	1.81	0.91/0.08	0.49	0.59/0.96	0.17/0.24	100
UHG 16	83621254	black	M20/P16(S)	0.37	1.97	1.18/0.10	0.59	0.69/1.06	0.22/0.24	100
UHG 21	83621256	black	M25/P21(S)	0.45	2.24	1.50/0.10	0.63	0.81/1.21	0.26/0.24	100
UHG 29	83621258	black	M32/P29(S)	0.45	2.64	1.71/0.12	0.63	1.00/1.40	0.26/0.24	50
UHG 36	83621260	black	M40/P36(S)	0.45	3.03	2.01/0.14	0.73	1.20/1.57	0.26/0.24	50
UHG 48	83621262	black	M50/P48(S)	0.45	3.50	2.52/0.14	0.75	1.44/1.83	0.26/0.24	50

## Type BL (clamping bracket for types UH and UHG)

RoHS  
compliant

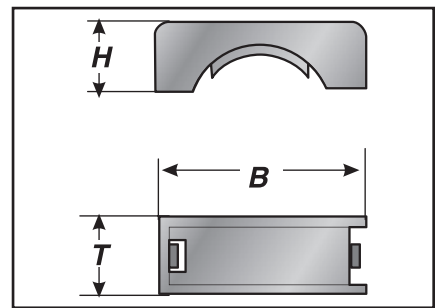
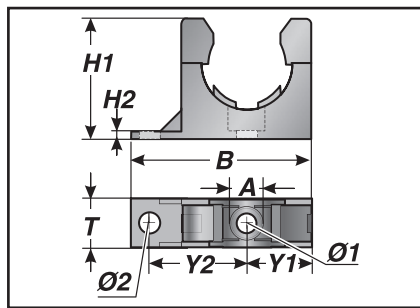
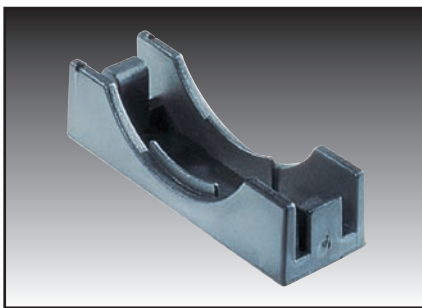
 -104 to 230 °F  
transient 284 °F

 Mod. polyamide

 V0

Optional bracket for UH and UHG.

- Additional mechanical retention of conduit when exposed to high stresses



BL

Type	Order no.	Color	Suitable for UH/UHG	B inch (mm)	H inch (mm)	T inch (mm)	Pack qty.
BL 09	83621406	black	09	1.14 (29.00)	0.39 (10.00)	0.49 (12.50)	100
BL 11	83621408	black	11	1.14 (29.00)	0.43 (11.00)	0.49 (12.50)	100
BL 16	83621410	black	16	1.34 (34.00)	0.47 (12.00)	0.59 (15.00)	100
BL 21	83621412	black	21	1.61 (41.00)	0.51 (13.00)	0.61 (15.50)	100
BL 29	83621414	black	29	1.97 (50.00)	0.55 (14.00)	0.63 (16.00)	50
BL 36	83621416	black	36	2.36 (60.00)	0.67 (17.00)	0.71 (18.00)	50
BL 48	83621418	black	48	2.83 (72.00)	0.75 (19.00)	0.73 (18.50)	50
BL 09	83621146	grey	09	1.14 (29.00)	0.39 (10.00)	0.49 (12.50)	100
BL 11	83621148	grey	11	1.14 (29.00)	0.43 (11.00)	0.49 (12.50)	100
BL 16	83621150	grey	16	1.34 (34.00)	0.47 (12.00)	0.59 (15.00)	100
BL 21	83621152	grey	21	1.61 (41.00)	0.51 (13.00)	0.61 (15.50)	100
BL 29	83621154	grey	29	1.97 (50.00)	0.55 (14.00)	0.63 (16.00)	50
BL 36	83621156	grey	36	2.36 (60.00)	0.67 (17.00)	0.71 (18.00)	50
BL 48	83621158	grey	48	2.83 (72.00)	0.75 (19.00)	0.73 (18.50)	50

FAR / ABD authorization for color grey only.



# Cable protection conduit holders

## Type UHF

RoHS compliant



-40 to 230 °F  
transient 284 °F



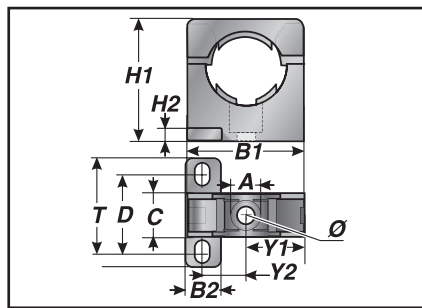
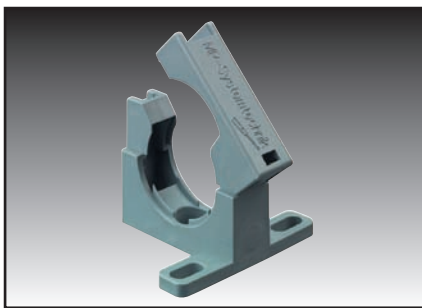
Mod. polyamide



V0

Quick and easy connection of control cabinet to door.

- Various fastening possibilities
- Fixing holes fit horizontal and vertical bar system in the control cabinet
- Conduits can still be rotated
- Pre-assembly of lower part possible
- High tensile strength thanks to double webs
- Brackets included in delivery



UHF

Type	Order no.	Color	Suitable for Murrflex	A inch	B1/2 inch	C inch	D inch	H1/2 inch	T inch	Y1/2 inch	Ø inch	Pack qty.
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suitable for Murrflex EW and EWX

UHF 16	83621610	grey	M20/P16(S)	0.37	1.38/0.47	0.59	1.06	1.38/0.20	1.50	0.68/0.44	0.22	100
UHF 21	83621612	grey	M25/P21(S)	0.45	1.65/0.47	0.61	1.06	1.65/0.20	1.50	0.83/0.58	0.26	100
UHF 29	83621614	grey	M32/P29(S)	0.45	2.01/0.47	0.63	1.73	1.89/0.20	2.36	1.00/0.76	0.26	50
UHF 36	83621616	grey	M40/P36(S)	0.45	2.40/0.51	0.73	1.87	2.17/0.24	2.36	1.19/0.96	0.26	50
UHF 48	83621618	grey	M50/P48(S)	0.45	2.87/0.51	0.73	1.87	2.68/0.31	2.36	1.44/1.18	0.26	50

## Type USH

RoHS  
compliant

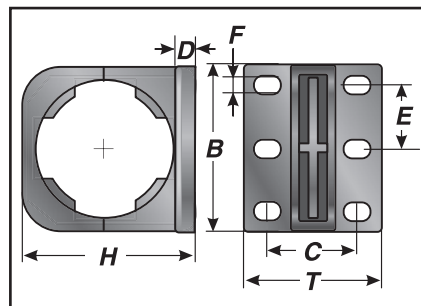
 -22 to 212 °F

 Polycarbonate

 V2

Quick and easy connection of control cabinet to door.

- Most universal fastening possibilities
- Fixing holes fit horizontal and vertical bar system in the control cabinet
- Conduits can still be rotated
- Pre-assembly of lower part possible



USH

Type	Order no.	Color	Suitable for Murrflex	B inch	C inch	D inch	E inch	F inch	H inch	T inch	Pack qty.
suitable for Murrflex EW and EWX											
USH 11	83641019	black	M16/P11(S)	1.50	0.91	0.20	0.51	0.22	1.57	1.50	50
USH 16	83641020	black	M20/P16(S)	1.50	0.91	0.20	0.51	0.22	1.57	1.50	50
USH 21	83641022	black	M25/P21(S)	1.50	0.91	0.20	0.51	0.22	1.57	1.50	50
USH 29	83641024	black	M32/P29(S)	1.81	1.02	0.20	0.69	0.22	1.89	1.50	50
USH 36	83641026	black	M40/P36(S)	2.05	1.89	0.24	0.79	0.22	2.32	2.36	50
USH 48	83641028	black	M50/P48(S)	2.68	1.85	0.31	1.08	0.22	3.03	2.36	50
USH 11	83641009	grey	M16/P11(S)	1.50	0.91	0.20	0.51	0.22	1.57	1.50	50
USH 16	83641010	grey	M20/P16(S)	1.50	0.91	0.20	0.51	0.22	1.57	1.50	50
USH 21	83641012	grey	M25/P21(S)	1.50	0.91	0.20	0.51	0.22	1.57	1.50	50
USH 29	83641014	grey	M32/P29(S)	1.81	1.02	0.20	0.69	0.22	1.89	1.50	50
USH 36	83641016	grey	M40/P36(S)	2.05	1.89	0.24	0.79	0.22	2.32	2.36	50
USH 48	83641018	grey	M50/P48(S)	2.68	1.85	0.31	1.08	0.22	3.03	2.36	50



# Cable protection conduit holders

## Type EF/B

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



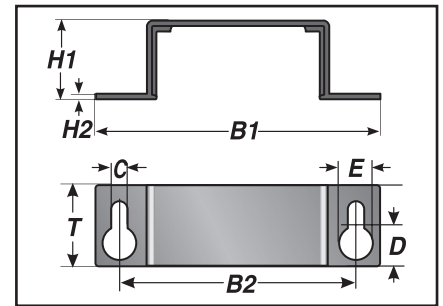
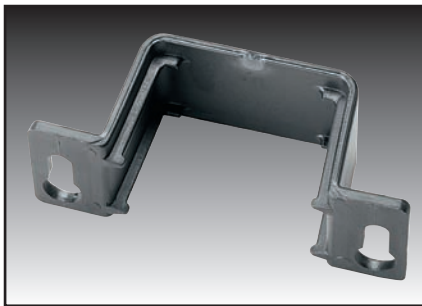
Mod. polyamide



V0

Holder for rectangular conduit type EF.

- Easy assembly
- High tear-out strength



EF/B

Type	Order no.	Color	B1 inch (mm)	B2 inch (mm)	C inch (mm)	D inch (mm)	E inch (mm)	H1 inch (mm)	H2 inch (mm)	T inch (mm)	Pack qty.
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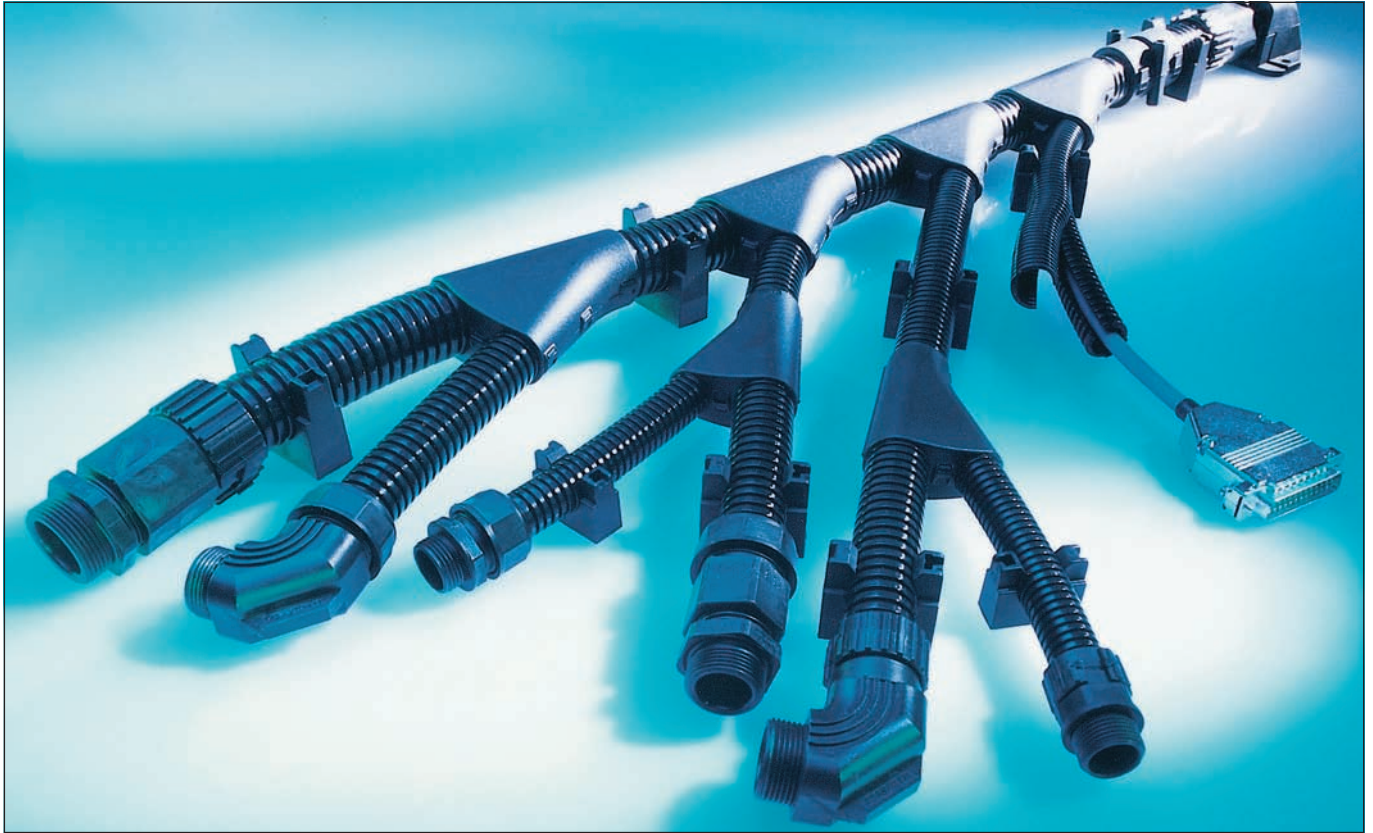
EF/B 26042	83361022	black	3.62 (92.0)	2.99 (76.0)	0.24 (6.20)	0.63 (16.0)	0.39 (10.0)	1.42 (36.0)	0.14 (3.50)	1.26 (32.0)	1
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**Protectors**  
**Conduit coupling**  
**Conduit distributor**



## Advantages



## Distribute, merge and extend

Conduit distributor, conduit coupling and protectors are made of high-quality polyamine and thermoplastic elastomer.

The large choice of distributors means a huge number of possible combinations and ways of splitting cable protection conduits.

Different protection ratings from IP 40 to IP 67 ensure an extensive range of applications.

The SVG type enables cable protection conduits of the same size to be connected together. Thus, any cable protection conduit can be extended however far you want.

The PR/SV protectors ensure that the cable protection conduits do not suffer from impact or abrasion. Additionally, cable protection conduits can be connected for repair work.



- ✓ Huge variety of types
- ✓ Different materials
- ✓ Different protection ratings
- ✓ Split version
- ✓ Easy installation



## Protectors / conduit couplings / conduit distributors product range



### Type PR/SV

Protector as strike guard and conduit coupling. Cable protection conduits are protected against impact and abrasion.

Page 180



### Type SVG

For the extension and repair of cable protection conduits.

Page 182



### Type VT

T distributor for cable protection conduits with different diameters.

Page 185



### Type SVY

Y distributor for cable protection conduits with different diameters.

Page 184



### Type YPA-F

Y distributor made from polyamide for cable protection conduits with high protection rating.

Page 185



### Type YTPE-F

Y distributor made from thermoplastic elastomer for cable protection conduits with a high protection rating.

Page 186



## Combination options

	PR/SV	SVG	VT	SVY	YPA-F	YTPE-F
EF	✗	✗	✗	✗	✗	✗
EW	✓	✓	✓	✓	✓	✓
EFW	✓	✓	✓	✓	✓	✓
EWS	✓	✓	✓	✓	✓	✓
EWX	✓	✓	✓	✓	✓	✓
EW-G	⚡	⚡	⚡	⚡	⚡	⚡
EW-HY	✓	✓	✓	✓	✓	✓
EW-LS	✓	✓	✓	✓	✓	✓
EW-PA	✓	✓	✓	✓	✓	✓
EW-PA-LS	✓	✓	✓	✓	✓	✓
EW-PA-UL	✓	✓	✓	✓	✓	✓
EW-PA-EX	✓	✓	✓	✓	✓	✓
EW-PAB	✓	✓	✓	✓	✓	✓
EW-PAE	✓	✓	✓	✓	✓	✓
EW-PAL	✓	✓	✓	✓	✓	✓
EW-PAP	✗	✗	✗	✗	✗	✗
EW-PP	✓	✓	✓	✓	✓	✓
EW-PRF	✓	✓	✓	✓	✓	✓
EW-TEF	✓	✓	✓	✓	✓	✓
EWT-PA	✓	✓	✓	✓	✓	✓
EWT-PP	✓	✓	✓	✓	✓	✓
EWX-LS	✓	✓	✓	✓	✓	✓
EWX-PA	✓	✓	✓	✓	✓	✓
EWX-PA-LS	✓	✓	✓	✓	✓	✓
EWX-PA-UL	✓	✓	✓	✓	✓	✓
EWX-PAE	✓	✓	✓	✓	✓	✓
EWX-PAE-LS	✓	✓	✓	✓	✓	✓
GF	✗	✗	✗	✗	✗	✗

✓ combinable

✗ not combinable

⚡ combinable to an extent (remove sheathing)

# Protectors / conduit couplings / conduit distributors



## Material data

	Material	Temperature area [°F]			Protection class	Fire specifications UL94	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	RoHS Compliant
		Min.	Max.	Short periods								
PR/SV	Polyamide PA6	-40	230	284		V0	✓	✓	✓	✓	✓	✓
SVG	Polyamide PA6	-40	230	284	IP 42 IP 54 screwed	V0	✓	✓	✓	✓	✓	✓
VT	Polyamide PA6	-40	230	284	IP 42	V0	✓	✓	✓	✓	✓	✓
SVY	Polyamide PA6	-40	230	284	IP 42	V0	✓	✓	✓	✓	✓	✓
YPA-F	Polyamide PA6	-22	212		IP 67	V0	✓	✓	✓	✓	✓	✓
YTPE-F	Thermoplastic elastomer	-22	212		IP 67	HB	✓	✓	✓	✓	✓	✓



# Protectors / conduit couplings / conduit distributors

## Type PR/SV

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



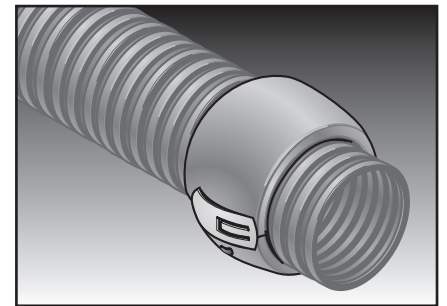
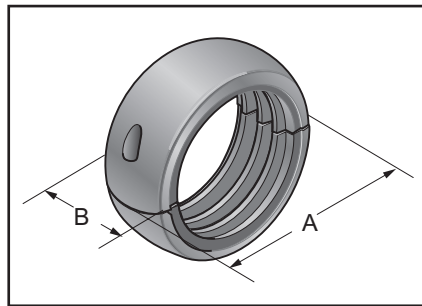
Mod. polyamide



VO

Protector as strike guard and conduit coupling. Cable protection conduits are protected against impact and abrasion. If required, cable protection conduits can also be connected.

- Flat construction method
- Simple assembly with a sliding lock, without the need for tools
- Optional stop screw (included in delivery)



PR/SV

Type	Order no.	Color black	Suitable for Murrflex	A inch (mm)	B inch (mm)	Pack qty.
Flat design for cable protection conduits with standard corrugation, type EW-xx						
PR/SV-EW 21	83691058	black	M25/P21	2.03 (51.60)	2.02 (51.20)	10
PR/SV-EW 29	83691060	black	M32/P29	2.28 (57.90)	2.01 (51.00)	10
PR/SV-EW 36	83691062	black	M40/P36	2.60 (66.00)	2.03 (51.50)	10
PR/SV-EW 48	83691064	black	M50/P48	3.07 (78.00)	1.95 (49.50)	10
PR/SV-EW 56	83691065	black	NW56	3.57 (90.80)	2.01 (51.00)	5
PR/SV-EW 70	83691066	black	NW70	4.07 (103.5)	2.03 (51.50)	5
Flat design for cable protection conduits with standard corrugation, type EWX-xx						
PR/SV-EW 21	83691018	grey	M25/P21	2.03 (51.60)	2.02 (51.20)	10
PR/SV-EW 29	83691020	grey	M32/P29	2.28 (57.90)	2.01 (51.00)	10
PR/SV-EW 36	83691022	grey	M40/P36	2.60 (66.00)	2.03 (51.50)	10
PR/SV-EW 48	83691024	grey	M50/P48	3.07 (78.00)	1.95 (49.50)	10
PR/SV-EW 56	83691025	grey	NW56	3.57 (90.80)	2.01 (51.00)	5
PR/SV-EW 70	83691026	grey	NW70	4.07 (103.5)	2.03 (51.50)	5
PR/SV-EWX 21	83691258	black	M25/P21	2.03 (51.60)	2.04 (51.90)	10
PR/SV-EWX 29	83691260	black	M32/P29	2.28 (57.90)	2.01 (51.00)	10
PR/SV-EWX 36	83691262	black	M40/P36	2.60 (66.00)	2.03 (51.50)	10
PR/SV-EWX 48	83691264	black	M50/P48	3.07 (78.00)	1.95 (49.50)	10
PR/SV-EWX 56	83691265	black	NW56	3.57 (90.80)	2.01 (51.00)	5
PR/SV-EWX 70	83691266	black	NW70	4.07 (103.5)	2.03 (51.50)	5





# Protectors / conduit couplings / conduit distributors

## Type SVG

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



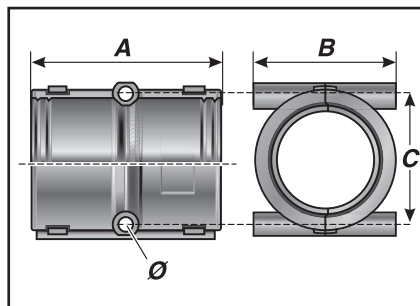
V0



IP 42  
IP 54 screwed

Extension and repair of cable protection conduits.

- Easy assembly by latching
- Split version makes routing of cables easy
- Can also be screwed on



SVG

Type	Order no.	Color black	Suitable for Murrflex	A inch (mm)	B inch (mm)	C inch (mm)	Ø inch (mm)	Pack qty.
SVG 21	83701630	black	M25/P21(S)	1.97 (50.00)	1.42 (36.00)	1.22 (31.00)	0.22 (5.50)	25
SVG 29	83701632	black	M32/P29(S)	2.13 (54.00)	1.73 (44.00)	1.45 (36.80)	0.22 (5.50)	25
SVG 36	83701634	black	M40/P36(S)	2.60 (66.00)	1.97 (50.00)	1.76 (44.80)	0.22 (5.50)	10
SVG 48	83701636	black	M50/P48(S)	2.60 (66.00)	2.52 (64.00)	2.24 (56.80)	0.22 (5.50)	10
SVG 21	83701610	grey	M25/P21(S)	1.97 (50.00)	1.42 (36.00)	1.22 (31.00)	0.22 (5.50)	25
SVG 29	83701612	grey	M32/P29(S)	2.13 (54.00)	1.73 (44.00)	1.45 (36.80)	0.22 (5.50)	25
SVG 36	83701614	grey	M40/P36(S)	2.60 (66.00)	1.97 (50.00)	1.76 (44.80)	0.22 (5.50)	10
SVG 48	83701616	grey	M50/P48(S)	2.60 (66.00)	2.52 (64.00)	2.24 (56.80)	0.22 (5.50)	10

## Type VT

RoHS  
compliant

 -40 to 230 °F  
transient 284 °F

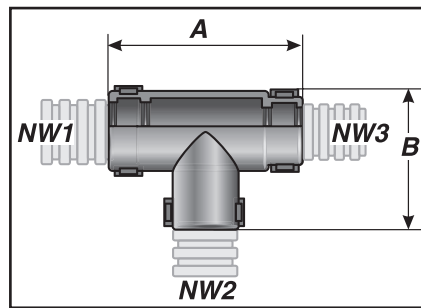
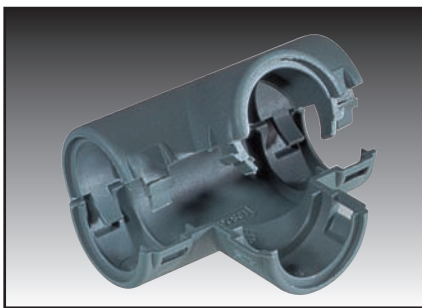
 Mod. polyamide

 V0

 IP 42

T distributor for cable protection conduits with different diameters.

- Easy assembly by latching
- Split version makes routing of cables easy
- The distributor envelops the conduit, which means that the entire inside diameter of the conduit is available



VT

Type	Order no.	Color	for Murrflex with Standard corrugation NW1/NW2/NW3	A inch (mm)	B inch (mm)	Pack qty.
VT 080808	83702410	black	06/06/06	1.78 (45.20)	1.22 (31.10)	10
VT 120808	83702412	black	09/06/06	1.78 (45.20)	1.22 (31.10)	10
VT 120812	83702414	black	09/06/09	1.78 (45.20)	1.22 (31.10)	10
VT 121208	83702416	black	09/09/06	1.78 (45.20)	1.22 (31.10)	10
VT 121212	83702418	black	09/09/09	1.78 (45.20)	1.22 (31.10)	10
VT 160816	83702420	black	11/06/11	1.93 (49.10)	1.37 (34.80)	10
VT 161212	83702422	black	11/09/09	1.93 (49.10)	1.37 (34.80)	10
VT 161216	83702424	black	11/09/11	1.93 (49.10)	1.37 (34.80)	10
VT 161612	83702426	black	11/11/09	1.93 (49.10)	1.37 (34.80)	10
VT 161616	83702428	black	11/11/11	1.93 (49.10)	1.37 (34.80)	10
VT 200820	83702430	black	16/06/16	2.22 (56.50)	1.61 (41.00)	10
VT 201216	83702432	black	16/09/11	2.22 (56.50)	1.61 (41.00)	10
VT 201220	83702434	black	16/09/16	2.22 (56.50)	1.61 (41.00)	10
VT 201616	83702436	black	16/11/11	2.22 (56.50)	1.61 (41.00)	10
VT 201620	83702438	black	16/11/16	2.22 (56.50)	1.61 (41.00)	10
VT 202016	83702440	black	16/16/11	2.22 (56.50)	1.61 (41.00)	10
VT 202020	83702441	black	16/16/16	2.22 (56.50)	1.61 (41.00)	10
VT 281220	83702442	black	21/09/16	2.54 (64.50)	1.91 (48.60)	10
VT 281620	83702444	black	21/ 11/16	2.54 (64.50)	1.91 (48.60)	10
VT 282020	83702446	black	21/16/16	2.54 (64.50)	1.91 (48.60)	10
VT 281228	83702448	black	21/09/21	2.54 (64.50)	1.91 (48.60)	10
VT 281628	83702450	black	21/11/21	2.54 (64.50)	1.91 (48.60)	10
VT 282028	83702452	black	21/16/21	2.54 (64.50)	1.91 (48.60)	10
VT 282828	83702454	black	21/21/21	2.54 (64.50)	1.91 (48.60)	10
VT 321632	83702456	black	29/11/29	2.83 (72.00)	2.18 (55.30)	10
VT 322032	83702458	black	29/16/29	2.83 (72.00)	2.18 (55.30)	10



# Protectors / conduit couplings / conduit distributors

## Type SVY

RoHS  
compliant



-40 to 230 °F  
transient 284 °F



Mod. polyamide



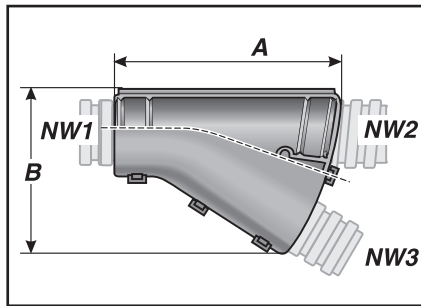
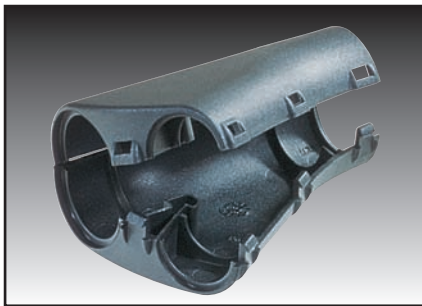
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IP 42

Y distributor for cable protection conduits with different diameters.

- Easy assembly by latching
- Split version makes routing of cables easy
- The distributor envelops the conduit, which means that the entire inside diameter of the conduit is available



SVY

Type	Order no.	Color	for Murrflex with Standard corrugation NW1/NW2/NW3	A inch (mm)	B inch (mm)	Pack qty.
SVY 080808	83701410	black	06/06/06	2.15 (54.60)	1.46 (37.10)	10
SVY 120808	83701412	black	09/06/06	2.15 (54.60)	1.46 (37.10)	10
SVY 121208	83701414	black	09/06/06	2.15 (54.60)	1.46 (37.10)	10
SVY 121212	83701416	black	09/09/09	2.15 (54.60)	1.46 (37.10)	10
SVY 161208	83701418	black	11/09/06	2.15 (54.60)	1.57 (39.80)	10
SVY 161212	83701420	black	11/09/09	2.15 (54.60)	1.57 (39.80)	10
SVY 161608	83701422	black	11/11/06	2.16 (54.90)	1.57 (39.80)	10
SVY 161612	83701424	black	11/11/09	2.16 (54.90)	1.57 (39.80)	10
SVY 200808	83701426	black	16/06/06	1.69 (42.80)	1.57 (39.80)	10
SVY 201208	83701428	black	16/09/06	1.69 (42.80)	1.61 (41.00)	10
SVY 201212	83701430	black	16/09/09	1.69 (42.80)	1.61 (41.00)	10
SVY 201608	83701432	black	16/11/06	1.90 (48.20)	1.56 (39.60)	10
SVY 201612	83701434	black	16/11/09	1.90 (48.20)	1.56 (39.60)	10
SVY 202008	83701436	black	16/16/06	2.28 (57.90)	1.77 (44.90)	10
SVY 202012	83701438	black	16/16/09	2.28 (57.90)	1.77 (44.90)	10
SVY 202016	83701440	black	16/16/11	2.50 (63.50)	1.87 (47.50)	10
SVY 282012	83701442	black	21/16/09	2.11 (53.50)	1.93 (49.00)	10
SVY 282016	83701444	black	21/16/11	2.11 (53.50)	1.93 (49.00)	10
SVY 282812	83701446	black	21/21/09	2.64 (67.00)	2.22 (56.50)	10
SVY 282816	83701448	black	21/21/11	2.64 (67.00)	2.22 (56.50)	10
SVY 282820	83701450	black	21/21/16	3.01 (76.50)	1.97 (50.00)	10
SVY 282828	83701452	black	21/21/21	3.63 (92.10)	2.63 (66.80)	10



**Type YPA-F**

RoHS  
compliant



-22 to 212 °F



Mod. polyamide



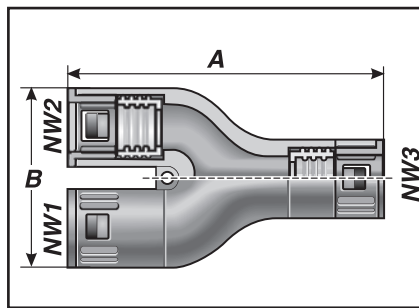
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IP 67

Y distributor made from polyamide for cable protection conduits with high protection rating.

- Easy assembly – just insert the cable protection conduit
- High protection class
- Closed design



YPA-F

Type	Order no.	Color	for Murrflex with Standard corrugation NW1/NW2/NW3	A inch (mm)	B inch (mm)	Pack qty.
YPA-F-6/6/9	83701850	black	6/6/9	2.48 (63.00)	1.42 (36.00)	10
YPA-F-9/9/9	83701854	black	9/9/9	2.56 (65.00)	1.69 (43.00)	10
YPA-F-9/9/11	83701858	black	9/9/11	2.60 (66.00)	1.77 (45.00)	10
YPA-F-11/11/11	83701862	black	11/11/11	2.68 (68.00)	1.81 (46.00)	10
YPA-F-6/6/9	83701810	grey	6/6/9	2.48 (63.00)	1.42 (36.00)	10
YPA-F-9/9/9	83701814	grey	9/9/9	2.56 (65.00)	1.69 (43.00)	10
YPA-F-9/9/11	83701818	grey	9/9/11	2.60 (66.00)	1.77 (45.00)	10
YPA-F-11/11/11	83701822	grey	11/11/11	2.68 (68.00)	1.81 (46.00)	10



# Protectors / conduit couplings / conduit distributors

## Type YYPE-F

RoHS  
compliant



-22 to 212 °F



Mod. thermoplastic elastomer



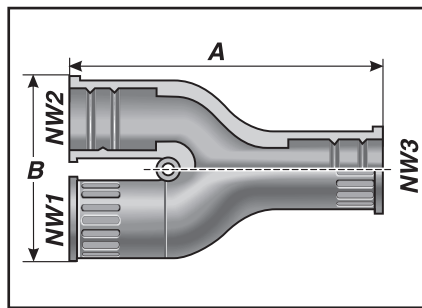
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IP 67

Y distributor made from thermoplastic elastomer for cable protection conduits with high protection rating.

- Easy assembly - just insert the cable protection conduit
- High protection class
- Closed design



YYPE-F

Type	Order no.	Color	for Murrflex with Standard corrugation NW1/NW2/NW3	A inch (mm)	B inch (mm)	Pack qty.
YYPE-F-6/6/6	83701856	black	06/06/06	2.01 (51.00)	1.26 (32.00)	10
YYPE-F-11/11/16	83701870	black	11/11/16	2.95 (75.00)	2.01 (51.00)	10
YYPE-F-11/11/21	83701872	black	11/11/21	3.19 (81.00)	2.05 (52.00)	10
YYPE-F-16/16/16	83701874	black	16/16/16	3.19 (81.00)	2.40 (61.00)	10
YYPE-F-16/16/21	83701878	black	16/16/21	3.19 (81.00)	2.40 (61.00)	10
YYPE-F-21/21/29	83701882	black	21/21/29	3.43 (87.00)	3.11 (79.00)	10
YYPE-F-29/29/36	83701886	black	29/29/36	3.90 (99.00)	3.43 (87.00)	10
YYPE-F-36/36/48	83701888	black	36/36/48	4.57 (116.00)	4.29 (109.00)	10
YYPE-F-6/6/6	83701826	grey	06/06/06	2.01 (51.00)	1.26 (32.00)	10
YYPE-F-11/11/16	83701830	grey	11/11/16	2.95 (75.00)	2.01 (51.00)	10
YYPE-F-11/11/21	83701832	grey	11/11/21	3.19 (81.00)	2.05 (52.00)	10
YYPE-F-16/16/16	83701834	grey	16/16/16	3.19 (81.00)	2.40 (61.00)	10
YYPE-F-16/16/21	83701838	grey	16/16/21	3.19 (81.00)	2.40 (61.00)	10
YYPE-F-21/21/29	83701842	grey	21/21/29	3.43 (87.00)	3.11 (79.00)	10
YYPE-F-29/29/36	83701846	grey	29/29/36	3.90 (99.00)	3.43 (87.00)	10
YYPE-F-36/36/48	83701848	grey	36/36/48	4.57 (116.00)	4.29 (109.00)	10

## Cable fittings





## Material data

	Material				Temperature area [°F]			Protection class	Fire specifications UL94	Approvals			Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	RoHS Compliant
	Fitting	Clamping insert	Moulded seal	O-Ring	Min.	Max.	Short periods			VDE	UR / UL	CSA						
WKK	Polyamide PA6		NBR	NBR	-40	212	248	IP 68	VO	✓	✓	✓	✓	✓	✓	✓	✓	✓
WKK-Ex	Polyamide PA6		NBR	NBR	-4	221		IP 68	VO	✓	✓	✓	✓	✓	✓	✓	✓	✓
WKM	Brass nickel-plated	Polyamide PA6	NBR	NBR	-40	212	248	IP 68		✓	✓	✓						✓
MWKM	Brass nickel-plated	Polyamide PA6	Elastomer	NBR	-40	212	248	IP 65			✓	✓						✓
WKM-EMV	Brass nickel-plated	Polyamide PA6	NBR	NBR	-40	212	248	IP 68		✓	✓	✓						✓
KV-ME	Elastomer				-40	212	248	IP 65			✓		✓	✓	✓	✓	✓	✓

## Cable fittings product range



### Type WKK (plastic version)

Cable fittings with very good strain relief and vibration-resistant lockable cap nut. Combinable with multi-insert KV-ME.

Page 190



### Type WKK-Ex (plastic version)

Cable fittings with very good strain relief for areas at risk of explosion. High protection class and large clamping range.

Page 192



### Type WKM (metal version)

Cable fittings with very good strain relief and vibration-resistant lockable cap nut. Combinable with multi-insert KV-ME.

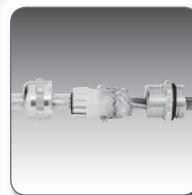
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### Type MWKM (metal version with multi-insert)

The MWKM is a metal cable fitting with multi-insert that enables several cables to be routed through one cable fitting.

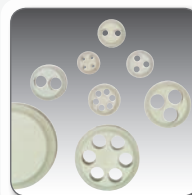
Page 195



### Type WKM-EMV (metal version)

Shielded cables can be connected to earth potential using this cable fitting. Large clamping area.

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### Type KV-ME (multi-insert)

Enables several cables to be routed through one fitting. The fitted seal insert in the cable fitting is simply swapped for the KV-ME multi-insert.

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## Type WKK (plastic version)

RoHS  
compliant



-40 to 212 °F  
transient 248 °F



Mod. polyamide  
Moulded seal: NBR



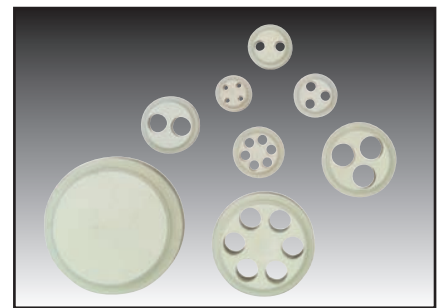
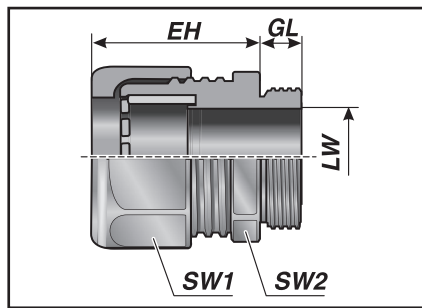
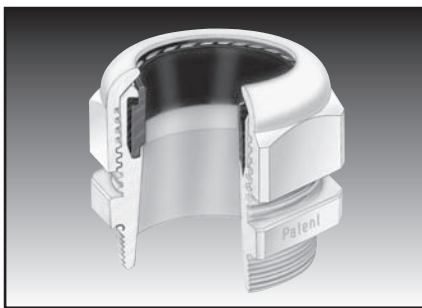
V0



IP 68 up to 10 bar  
with additional O-ring, type OR

The cable fitting offers excellent strain relief and has a vibration-resistant cap nut. The multi-insert KV-ME enables several cables to be routed through one cable fitting.

- Very high protection class
- Easy to assemble
- Large clamping range
- An additional O-ring (type OR) is required in order to assure a protection rating of IP 68



WKK

Type	Order no.	Color	Connecting thread	LW inch (mm)	EH inch (mm)	GL inch (mm)	SW 1/2 inch (mm)	Pack qty.
Metric version								
WKK-M12x1.5	84105050	black	M12x1.5	0.12–0.26 (3.0–6.5)	0.83 (21.0)	0.31 (8.0)	0.59/0.59 (15/15)	50
WKK-M16x1.5	84105056	black	M16x1.5	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.31 (8.0)	0.75/0.75 (19/19)	50
WKK-M20x1.5	84105062	black	M20x1.5	0.24–0.47 (6.0–12.0)	1.06 (27.0)	0.35 (9.0)	0.94/0.94 (24/24)	50
WKK-M25x1.5	84105068	black	M25x1.5	0.51–0.71 (13.0–18.0)	1.22 (31.0)	0.43 (11.0)	1.30/1.30 (33/33)	50
WKK-M32x1.5	84105074	black	M32x1.5	0.71–0.98 (18.0–25.0)	1.54 (39.0)	0.43 (11.0)	1.65/1.65 (42/42)	25
WKK-M40x1.5	84105080	black	M40x1.5	0.87–1.26 (22.0–32.0)	1.89 (48.0)	0.51 (13.0)	2.09/2.09 (53/53)	10
WKK-M50x1.5	84105086	black	M50x1.5	1.26–1.50 (32.0–38.0)	1.93 (49.0)	0.51 (13.0)	2.36/2.36 (60/60)	5
WKK-M63x1.5	84105092	black	M63x1.5	1.46–1.73 (37.0–44.0)	1.93 (49.0)	0.55 (14.0)	2.56/2.68 (65/68)	5
WKK-M12x1.5	84105000	grey	M12x1.5	0.12–0.26 (3.0–6.5)	0.83 (21.0)	0.31 (8.0)	0.59/0.59 (15/15)	50
WKK-M16x1.5	84105006	grey	M16x1.5	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.31 (8.0)	0.75/0.75 (19/19)	50
WKK-M20x1.5	84105012	grey	M20x1.5	0.24–0.47 (6.0–12.0)	1.06 (27.0)	0.35 (9.0)	0.94/0.94 (24/24)	50
WKK-M25x1.5	84105018	grey	M25x1.5	0.51–0.71 (13.0–18.0)	1.22 (31.0)	0.43 (11.0)	1.30/1.30 (33/33)	50
WKK-M32x1.5	84105024	grey	M32x1.5	0.71–0.98 (18.0–25.0)	1.54 (39.0)	0.43 (11.0)	1.65/1.65 (42/42)	25
WKK-M40x1.5	84105030	grey	M40x1.5	0.87–1.26 (22.0–32.0)	1.89 (48.0)	0.51 (13.0)	2.09/2.09 (53/53)	10
WKK-M50x1.5	84105036	grey	M50x1.5	1.26–1.50 (32.0–38.0)	1.93 (49.0)	0.51 (13.0)	2.36/2.36 (60/60)	5
WKK-M63x1.5	84105042	grey	M63x1.5	1.46–1.73 (37.0–44.0)	1.93 (49.0)	0.55 (14.0)	2.56/2.68 (65/68)	5
Metric version with extended thread								
WKK/L-M12x1.5	84105650	black	M12x1.5	0.12–0.26 (3.0–6.5)	0.83 (21.0)	0.59 (15.0)	0.59/0.59 (15/15)	100
WKK/L-M16x1.5	84105652	black	M16x1.5	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.59 (15.0)	0.75/0.75 (19/19)	100
WKK/L-M20x1.5	84105654	black	M20x1.5	0.24–0.47 (6.0–12.0)	1.06 (27.0)	0.59 (15.0)	0.94/0.94 (24/24)	100
WKK/L-M25x1.5	84105656	black	M25x1.5	0.51–0.71 (13.0–18.0)	1.22 (31.0)	0.59 (15.0)	1.30/1.30 (33/33)	100

## Type WKK (plastic version)

RoHS  
compliant

Type	Order no.	Color	Connecting thread	LW inch (mm)	EH inch (mm)	GL inch (mm)	SW 1/2 inch (mm)	Pack qty.
Pg version								
WKK-Pg 07	84101050	black	Pg 07	0.12–0.26 (3.0–6.5)	0.83 (21.0)	0.31 (8.0)	0.59/0.59 (15/15)	50
WKK-Pg 09	84101052	black	Pg 09	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.31 (8.0)	0.75/0.75 (19/19)	50
WKK-Pg 11	84101054	black	Pg 11	0.20–0.39 (5.0–10.0)	0.98 (25.0)	0.31 (8.0)	0.87/0.87 (22/22)	50
WKK-Pg 13.5	84101056	black	Pg 13.5	0.24–0.47 (6.0–12.0)	1.06 (27.0)	0.35 (9.0)	0.94/0.94 (24/24)	50
WKK-Pg 16	84101058	black	Pg 16	0.39–0.55 (10.0–14.0)	1.10 (28.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
WKK-Pg 21	84101060	black	Pg 21	0.51–0.71 (13.0–18.0)	1.22 (31.0)	0.43 (11.0)	1.30/1.30 (33/33)	50
WKK-Pg 29	84101062	black	Pg 29	0.71–0.98 (18.0–25.0)	1.54 (39.0)	0.43 (11.0)	1.65/1.65 (42/42)	25
WKK-Pg 36	84101064	black	Pg 36	0.87–1.26 (22.0–32.0)	1.89 (48.0)	0.51 (13.0)	2.09/2.09 (53/53)	10
WKK-Pg 42	84101066	black	Pg 42	1.26–1.50 (32.0–38.0)	1.93 (49.0)	0.51 (13.0)	2.36/2.36 (60/60)	5
WKK-Pg 48	84101068	black	Pg 48	1.46–1.73 (37.0–44.0)	1.93 (49.0)	0.51 (13.0)	2.56/2.56 (65/65)	5
WKK-Pg 07	84101010	grey	Pg 07	0.12–0.26 (3.0–6.5)	0.83 (21.0)	0.31 (8.0)	0.59/0.59 (15/15)	50
WKK-Pg 09	84101012	grey	Pg 09	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.31 (8.0)	0.75/0.75 (19/19)	50
WKK-Pg 11	84101014	grey	Pg 11	0.20–0.39 (5.0–10.0)	0.98 (25.0)	0.31 (8.0)	0.87/0.87 (22/22)	50
WKK-Pg 13.5	84101016	grey	Pg 13.5	0.24–0.47 (6.0–12.0)	1.06 (27.0)	0.35 (9.0)	0.94/0.94 (24/24)	50
WKK-Pg 16	84101018	grey	Pg 16	0.39–0.55 (10.0–14.0)	1.10 (28.0)	0.39 (10.0)	1.06/1.06 (27/27)	50
WKK-Pg 21	84101020	grey	Pg 21	0.51–0.71 (13.0–18.0)	1.22 (31.0)	0.43 (11.0)	1.30/1.30 (33/33)	50
WKK-Pg 29	84101022	grey	Pg 29	0.71–0.98 (18.0–25.0)	1.54 (39.0)	0.43 (11.0)	1.65/1.65 (42/42)	25
WKK-Pg 36	84101024	grey	Pg 36	0.87–1.26 (22.0–32.0)	1.89 (48.0)	0.51 (13.0)	2.09/2.09 (53/53)	10
WKK-Pg 42	84101026	grey	Pg 42	1.26–1.50 (32.0–38.0)	1.93 (49.0)	0.51 (13.0)	2.36/2.36 (60/60)	5
WKK-Pg 48	84101028	grey	Pg 48	1.46–1.73 (37.0–44.0)	1.93 (49.0)	0.51 (13.0)	2.56/2.56 (65/65)	5
Pg version with extended thread								
WKK/L-Pg 07	84101650	black	Pg 07	0.12–0.26 (3.0–6.5)	0.83 (21.0)	0.59 (15.0)	0.59/0.59 (15/15)	50
WKK/L-Pg 09	84101652	black	Pg 09	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.59 (15.0)	0.75/0.75 (19/19)	50
WKK/L-Pg 11	84101654	black	Pg 11	0.20–0.39 (5.0–10.0)	0.98 (25.0)	0.59 (15.0)	0.87/0.87 (22/22)	50
WKK/L-Pg 13.5	84101656	black	Pg 13.5	0.24–0.47 (6.0–12.0)	1.06 (27.0)	0.59 (15.0)	0.94/0.94 (24/24)	50
WKK/L-Pg 16	84101658	black	Pg 16	0.39–0.55 (10.0–14.0)	1.10 (28.0)	0.59 (15.0)	1.06/1.06 (27/27)	50
WKK/L-Pg 21	84101660	black	Pg 21	0.51–0.71 (13.0–18.0)	1.22 (31.0)	0.59 (15.0)	1.30/1.30 (33/33)	50
WKK/L-Pg 29	84101662	black	Pg 29	0.71–0.98 (18.0–25.0)	1.54 (39.0)	0.59 (15.0)	1.65/1.65 (42/42)	25
WKK/L-Pg 36	84101664	black	Pg 36	0.87–1.26 (22.0–32.0)	1.89 (48.0)	0.71 (18.0)	2.09/2.09 (53/53)	10
WKK/L-Pg 42	84101666	black	Pg 42	1.26–1.50 (32.0–38.0)	1.93 (49.0)	0.71 (18.0)	2.36/2.36 (60/60)	5
WKK/L-Pg 48	84101668	black	Pg 48	1.46–1.73 (37.0–44.0)	1.93 (49.0)	0.71 (18.0)	2.56/2.56 (65/65)	5
WKK/L-Pg 07	84101610	grey	Pg 07	0.12–0.26 (3.0–6.5)	0.83 (21.0)	0.59 (15.0)	0.59/0.59 (15/15)	50
WKK/L-Pg 09	84101612	grey	Pg 09	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.59 (15.0)	0.75/0.75 (19/19)	50
WKK/L-Pg 11	84101614	grey	Pg 11	0.20–0.39 (5.0–10.0)	0.98 (25.0)	0.59 (15.0)	0.87/0.87 (22/22)	50
WKK/L-Pg 13.5	84101616	grey	Pg 13.5	0.24–0.47 (6.0–12.0)	1.06 (27.0)	0.59 (15.0)	0.94/0.94 (24/24)	50
WKK/L-Pg 16	84101618	grey	Pg 16	0.39–0.55 (10.0–14.0)	1.10 (28.0)	0.59 (15.0)	1.06/1.06 (27/27)	50
WKK/L-Pg 21	84101620	grey	Pg 21	0.51–0.71 (13.0–18.0)	1.22 (31.0)	0.59 (15.0)	1.30/1.30 (33/33)	50
WKK/L-Pg 29	84101622	grey	Pg 29	0.71–0.98 (18.0–25.0)	1.54 (39.0)	0.59 (15.0)	1.65/1.65 (42/42)	25
WKK/L-Pg 36	84101624	grey	Pg 36	0.87–1.26 (22.0–32.0)	1.89 (48.0)	0.71 (18.0)	2.09/2.09 (53/53)	10
WKK/L-Pg 42	84101626	grey	Pg 42	1.26–1.50 (32.0–38.0)	1.93 (49.0)	0.71 (18.0)	2.36/2.36 (60/60)	5
WKK/L-Pg 48	84101628	grey	Pg 48	1.46–1.73 (37.0–44.0)	1.93 (49.0)	0.71 (18.0)	2.56/2.56 (65/65)	5
NPT version								
WKK / NPT 3/8"	84102050	black	3/8"	0.08–0.24 (2.0–6.0)	0.87 (22.0)	0.59 (15.0)	0.75/0.87 (19/22)	50
WKK / NPT 3/8"	84102052	black	3/8"	0.16–0.31 (4.0–8.0)	0.87 (22.0)	0.59 (15.0)	0.75/0.87 (19/22)	50
WKK / NPT 1/2"	84102054	black	1/2"	0.20–0.35 (5.0–9.0)	1.06 (27.0)	0.51 (13.0)	0.94/0.94 (24/24)	50
WKK / NPT 1/2"	84102056	black	1/2"	0.35–0.47 (9.0–12.0)	1.10 (28.0)	0.51 (13.0)	0.94/0.94 (24/24)	50





## Type WKK-Ex (plastic version)

RoHS  
compliant



-4 to 221 °F



Mod. polyamide  
Moulded seal: NBR



V0



IP 68 up to 10 bar  
with additional O-ring, type OR

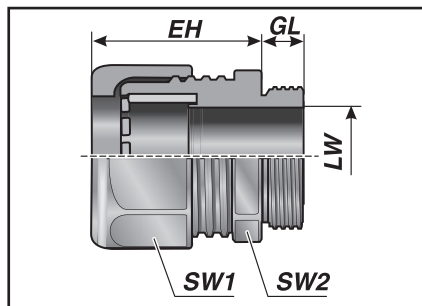


Ex class EEx e II PTB  
Ex class EEx e II KEMA

Cable fitting with high protection class for areas at risk of explosion.

The cable fitting offers excellent strain relief and has a vibration-resistant cap nut.

- Very high protection class
- Approved for areas at risk of explosion
- Large clamping range
- An additional O-ring (type OR) is required in order to reach a protection rating of IP 68






WKK-EX

Type	Order no.	Color	Connecting thread	LW inch (mm)	EH inch (mm)	GL inch (mm)	SW 1/2 inch (mm)	Pack qty.
Pg version								
WKK / Ex-Pg 07	84101250	black	Pg 07	0.12–0.26 (3.0–6.5)	0.83 (21.00)	0.31 (8.00)	0.59/0.59 (15/15)	50
WKK / Ex-Pg 09	84101252	black	Pg 09	0.16–0.31 (4.0–8.0)	0.87 (22.00)	0.31 (8.00)	0.75/0.75 (19/19)	50
WKK / Ex-Pg 11	84101254	black	Pg 11	0.20–0.39 (5.0–10.0)	0.98 (25.00)	0.31 (8.00)	0.87/0.87 (22/22)	50
WKK / Ex-Pg 13.5	84101256	black	Pg 13.5	0.24–0.47 (6.0–12.0)	1.06 (27.00)	0.35 (9.00)	0.94/0.94 (24/24)	50
WKK / Ex-Pg 16	84101258	black	Pg 16	0.39–0.55 (10.0–14.0)	1.10 (28.00)	0.39 (10.0)	1.06/1.06 (27/27)	50
WKK / Ex-Pg 21	84101260	black	Pg 21	0.51–0.71 (13.0–18.0)	1.22 (31.00)	0.43 (11.0)	1.30/1.30 (33/33)	50
WKK / Ex-Pg 29	84101262	black	Pg 29	0.71–0.98 (18.0–25.0)	1.54 (39.00)	0.43 (11.0)	1.65/1.65 (42/42)	25
WKK / Ex-Pg 36	84101264	black	Pg 36	0.87–1.26 (22.0–32.0)	1.89 (48.00)	0.51 (13.0)	2.09/2.09 (53/53)	10
WKK / Ex-Pg 42	84101266	black	Pg 42	1.26–1.50 (32.0–38.0)	1.93 (49.00)	0.51 (13.0)	2.36/2.36 (60/60)	5
WKK / Ex-Pg 48	84101268	black	Pg 48	1.46–1.73 (37.0–44.0)	1.93 (49.00)	0.55 (14.0)	2.56/2.56 (65/65)	5
WKK / Ex-Pg 07	84101210	grey	Pg 07	0.12–0.26 (3.0–6.5)	0.83 (21.00)	0.31 (8.00)	0.59/0.59 (15/15)	50
WKK / Ex-Pg 09	84101212	grey	Pg 09	0.16–0.31 (4.0–8.0)	0.87 (22.00)	0.31 (8.00)	0.75/0.43 (19/11)	50
WKK / Ex-Pg 11	84101214	grey	Pg 11	0.20–0.39 (5.0–10.0)	0.98 (25.00)	0.31 (8.00)	0.87/0.87 (22/22)	50
WKK / Ex-Pg 13.5	84101216	grey	Pg 13.5	0.24–0.47 (6.0–12.0)	1.06 (27.00)	0.35 (9.00)	0.94/0.94 (24/24)	50
WKK / Ex-Pg 16	84101218	grey	Pg 16	0.39–0.55 (10.0–14.0)	1.10 (28.00)	0.39 (10.0)	1.06/1.06 (27/27)	50
WKK / Ex-Pg 21	84101220	grey	Pg 21	0.51–0.71 (13.0–18.0)	1.22 (31.00)	0.43 (11.0)	1.30/1.30 (33/33)	50
WKK / Ex-Pg 29	84101222	grey	Pg 29	0.71–0.98 (18.0–25.0)	1.54 (39.00)	0.43 (11.0)	1.65/1.65 (42/42)	25
WKK / Ex-Pg 36	84101224	grey	Pg 36	0.87–1.26 (22.0–32.0)	1.89 (48.00)	0.51 (13.0)	2.09/2.09 (53/53)	10
WKK / Ex-Pg 42	84101226	grey	Pg 42	1.26–1.50 (32.0–38.0)	1.93 (49.00)	0.51 (13.0)	2.36/2.36 (60/60)	5
WKK / Ex-Pg 48	84101228	grey	Pg 48	1.46–1.73 (37.0–44.0)	1.93 (49.00)	0.55 (14.0)	2.56/2.56 (65/65)	5



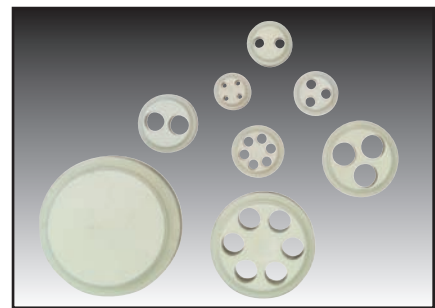
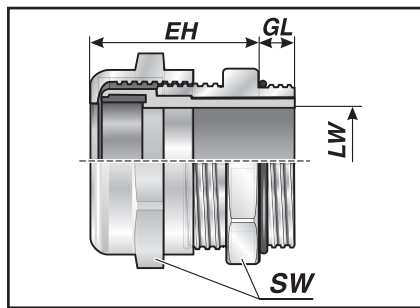
## Type WKM (metal version)

RoHS  
compliant

-  -40 to 212 °F  
transient 248 °F
-  Brass, nickel-plated  
mod. polyamide; NBR
-  IP 68 up to 10 bar

The cable fitting offers excellent strain relief and has a vibration-resistant cap nut. The multi-insert KV-ME enables several cables to be routed through one cable fitting.

- Very high protection class
- Easy to assemble
- Large clamping range
- Includes sealing ring on connecting thread



WKM

Type	Order no.	Connecting thread	LW inch (mm)	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
Metric version							
WKM-M12x1.5	84125010	M12x1.5	0.12–0.26 (3.0–6.5)	0.75 (19.0)	0.20 (5.0)	0.55 (14.0)	50
WKM-M16x1.5	84125014	M16x1.5	0.16–0.31 (4.0–8.0)	0.79 (20.0)	0.24 (6.0)	0.67 (17.0)	50
WKM-M20x1.5	84125018	M20x1.5	0.24–0.47 (6.0–12.0)	0.87 (22.0)	0.24 (6.0)	0.87 (22.0)	50
WKM-M25x1.5	84125022	M25x1.5	0.51–0.71 (13.0–18.0)	0.98 (25.0)	0.28 (7.0)	1.06 (27.0)	25
WKM-M32x1.5	84125026	M32x1.5	0.71–0.98 (18.0–25.0)	1.14 (29.0)	0.31 (8.0)	1.57 (40.0)	25
WKM-M40x1.5	84125030	M40x1.5	0.87–1.26 (22.0–32.0)	1.38 (35.0)	0.31 (8.0)	1.97 (50.0)	10
WKM-M50x1.5	84125034	M50x1.5	1.26–1.50 (32.0–38.0)	1.46 (37.0)	0.35 (9.0)	2.24 (57.0)	10
WKM-M63x1.5	84125038	M63x1.5	1.46–1.73 (37.0–44.0)	1.50 (38.0)	0.39 (10.0)	2.52/2.68 (64/68)	10
Pg version							
WKM-Pg 07	84121010	Pg 07	0.12–0.26 (3.0–6.5)	0.75 (19.0)	0.20 (5.0)	0.55 (14.0)	50
WKM-Pg 09	84121012	Pg 09	0.16–0.31 (4.0–8.0)	0.79 (20.0)	0.24 (6.0)	0.67 (17.0)	50
WKM-Pg 11	84121014	Pg 11	0.20–0.39 (5.0–10.0)	0.83 (21.0)	0.24 (6.0)	0.79 (20.0)	50
WKM-Pg 13.5	84121016	Pg 13.5	0.24–0.47 (6.0–12.0)	0.87 (22.0)	0.26 (6.5)	0.87 (22.0)	50
WKM-Pg 16	84121018	Pg 16	0.39–0.55 (10.0–14.0)	0.91 (23.0)	0.26 (6.5)	0.94 (24.0)	50
WKM-Pg 21	84121020	Pg 21	0.51–0.71 (13.0–18.0)	0.98 (25.0)	0.28 (7.0)	1.18 (30.0)	25
WKM-Pg 29	84121022	Pg 29	0.71–0.98 (18.0–25.0)	1.14 (29.0)	0.31 (8.0)	1.57 (40.0)	25
WKM-Pg 36	84121024	Pg 36	0.87–1.26 (22.0–32.0)	1.38 (35.0)	0.31 (8.0)	1.57 (40.0)	10
WKM-Pg 42	84121026	Pg 42	1.26–1.50 (32.0–38.0)	1.46 (37.0)	0.35 (9.0)	2.24 (57.0)	5
WKM-Pg 48	84121028	Pg 48	1.46–1.73 (37.0–44.0)	1.50 (38.0)	0.39 (10.0)	2.52 (64.0)	5



## Type WKM (metal version)

RoHS  
compliant

Type	Order no.	Connecting thread	LW inch (mm)	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
Pg version with extended thread							
WKM/L-Pg 07	84121210	Pg 07	0.12–0.26 (3.0–6.5)	0.75 (19.0)	0.39 (10.0)	0.55 (14.0)	50
WKM/L-Pg 09	84121212	Pg 09	0.16–0.31 (4.0–8.0)	0.79 (20.0)	0.39 (10.0)	0.67 (17.0)	50
WKM/L-Pg 11	84121214	Pg 11	0.20–0.39 (5.0–10.0)	0.83 (21.0)	0.39 (10.0)	0.79 (20.0)	50
WKM/L-Pg 13.5	84121216	Pg 13.5	0.24–0.47 (6.0–12.0)	0.87 (22.0)	0.39 (10.0)	0.87 (22.0)	50
WKM/L-Pg 16	84121218	Pg 16	0.39–0.55 (10.0–14.0)	0.91 (23.0)	0.39 (10.0)	0.94 (24.0)	50
WKM/L-Pg 21	84121220	Pg 21	0.51–0.71 (13.0–18.0)	0.98 (25.0)	0.47 (12.0)	1.18 (30.0)	25
WKM/L-Pg 29	84121222	Pg 29	0.71–0.98 (18.0–25.0)	1.14 (29.0)	0.47 (12.0)	1.57 (40.0)	25
WKM/L-Pg 36	84121224	Pg 36	0.87–1.26 (22.0–32.0)	1.38 (35.0)	0.59 (15.0)	1.57 (40.0)	10
WKM/L-Pg 42	84121226	Pg 42	1.26–1.50 (32.0–38.0)	1.46 (37.0)	0.59 (15.0)	2.24 (57.0)	5
WKM/L-Pg 48	84121228	Pg 48	1.46–1.73 (37.0–44.0)	1.50 (38.0)	0.59 (15.0)	2.52 (64.0)	5
NPT version							
WKM-NPT 3/8"	84122212	3/8"	0.08–0.24 (2.0–6.0)	0.83 (21.0)	0.59 (15.0)	0.67/0.75 (17/19)	50
WKM-NPT 3/8"	84122210	3/8"	0.16–0.31 (4.0–8.0)	0.83 (21.0)	0.59 (15.0)	0.67/0.75 (17/19)	50
WKM-NPT 1/2"	84122216	1/2"	0.20–0.35 (5.0–9.0)	0.94 (24.0)	0.51 (13.0)	0.87/0.94 (22/24)	50
WKM-NPT 1/2"	84122214	1/2"	0.24–0.47 (6.0–12.0)	0.94 (24.0)	0.51 (13.0)	0.87/0.94 (22/24)	50
WKM-NPT 3/4"	84122220	3/4"	0.35–0.63 (9.0–16.0)	0.98 (25.0)	0.51 (13.0)	1.18 (30.0)	25
WKM-NPT 3/4"	84122218	3/4"	0.51–0.71 (13.0–18.0)	0.98 (25.0)	0.51 (13.0)	1.18 (30.0)	25







## Type WKM-EMV (metal version)

RoHS compliant



-40 to 212 °F  
transient 248 °F



Brass, nickel-plated  
mod. polyamide; NBR



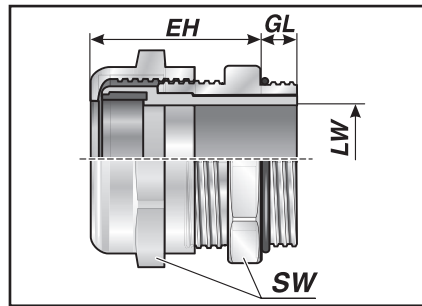
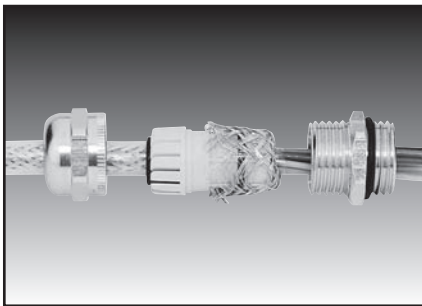
IP 68 up to 10 bar



Moulded seal and  
O-Ring: NBR

Shielded cables can be connected to earth potential using this cable fitting. The cable's braiding makes contact with the metal body. This enables sheath currents to be discharged.

- Simple contacting
- Large clamping range
- Easy handling
- Includes sealing ring on connecting thread



WKM-EMV

Type	Order no.	Connecting thread	LW inch (mm)	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
<b>Metric/EMV version</b>							
WKM/EMV M12x1.5	84125210	M12x1.5	0.12–0.26 (3.0–6.5)	0.75 (19.0)	0.20 (5.0)	0.55 (14.0)	50
WKM/EMV M16x1.5	84125212	M16x1.5	0.24–0.39 (6.0–10.0)	0.87 (22.0)	0.24 (6.0)	0.79 (20.0)	50
WKM/EMV M20x1.5	84125214	M20x1.5	0.39–0.55 (10.0–14.0)	0.91 (23.0)	0.24 (6.0)	0.94 (24.0)	50
WKM/EMV M25x1.5	84125216	M25x1.5	0.55–0.71 (14.0–18.0)	0.94 (24.0)	0.28 (7.0)	1.18 (30.0)	25
WKM/EMV M32x1.5	84125218	M32x1.5	0.79–0.98 (20.0–25.0)	1.22 (31.0)	0.31 (8.0)	1.57 (40.0)	25
WKM/EMV M40x1.5	84125220	M40x1.5	0.87–1.26 (22.0–32.0)	1.46 (37.0)	0.31 (8.0)	1.97 (50.0)	25
WKM / EMV M63x1.5	84125224	M63x1.5	1.46–1.73 (37.0–44.0)	1.50 (38.0)	0.39 (10.0)	2.52/2.68 (64/68)	5
<b>Pg/EMV version</b>							
WKM/EMV Pg 07	84122010	Pg 07	0.12–0.26 (3.0–6.5)	0.75 (19.0)	0.20 (5.0)	0.55 (14.0)	50
WKM/EMV Pg 09	84122012	Pg 09	0.16–0.31 (4.0–8.0)	0.83 (21.0)	0.24 (6.0)	0.67 (17.0)	50
WKM/EMV Pg 11	84122014	Pg 11	0.24–0.39 (6.0–10.0)	0.87 (22.0)	0.24 (6.0)	0.79 (20.0)	50
WKM/EMV Pg 13.5	84122016	Pg 13.5	0.24–0.47 (6.0–12.0)	0.94 (24.0)	0.26 (6.5)	0.87 (22.0)	50
WKM/EMV Pg 16	84122018	Pg 16	0.39–0.55 (10.0–14.0)	0.91 (23.0)	0.26 (6.5)	0.94 (24.0)	50
WKM/EMV Pg 21	84122020	Pg 21	0.55–0.71 (14.0–18.0)	0.94 (24.0)	0.28 (7.0)	1.18 (30.0)	25
WKM/EMV Pg 29	84122022	Pg 29	0.79–0.98 (20.0–25.0)	1.14 (29.0)	0.31 (8.0)	1.57 (40.0)	25
WKM/EMV Pg 36	84122024	Pg 36	0.87–1.26 (22.0–32.0)	1.38 (35.0)	0.31 (8.0)	1.97 (50.0)	10
WKM/EMV Pg 42	84122026	Pg 42	1.26–1.50 (32.0–38.0)	1.46 (37.0)	0.35 (9.0)	2.24 (57.0)	5
WKM/EMV Pg 48	84122028	Pg 48	1.46–1.73 (37.0–44.0)	1.50 (38.0)	0.39 (10.0)	2.52 (64.0)	5

## Type KV-ME (multi-insert)

RoHS  
compliant

 -40 to 212 °F  
transient 248 °F

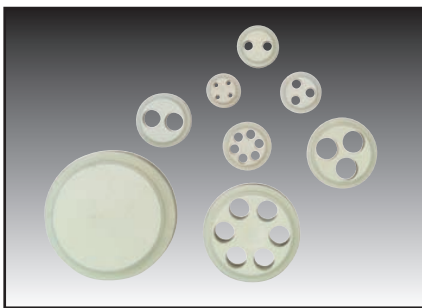
 Elastomer

 IP 65

The KV-ME multi-insert can be used both in WKK cable fittings and in WKM cable fittings. This enables several cables to be routed through one fitting. The fitted seal insert in the cable fitting is simply swapped for the KV-ME multi-insert.

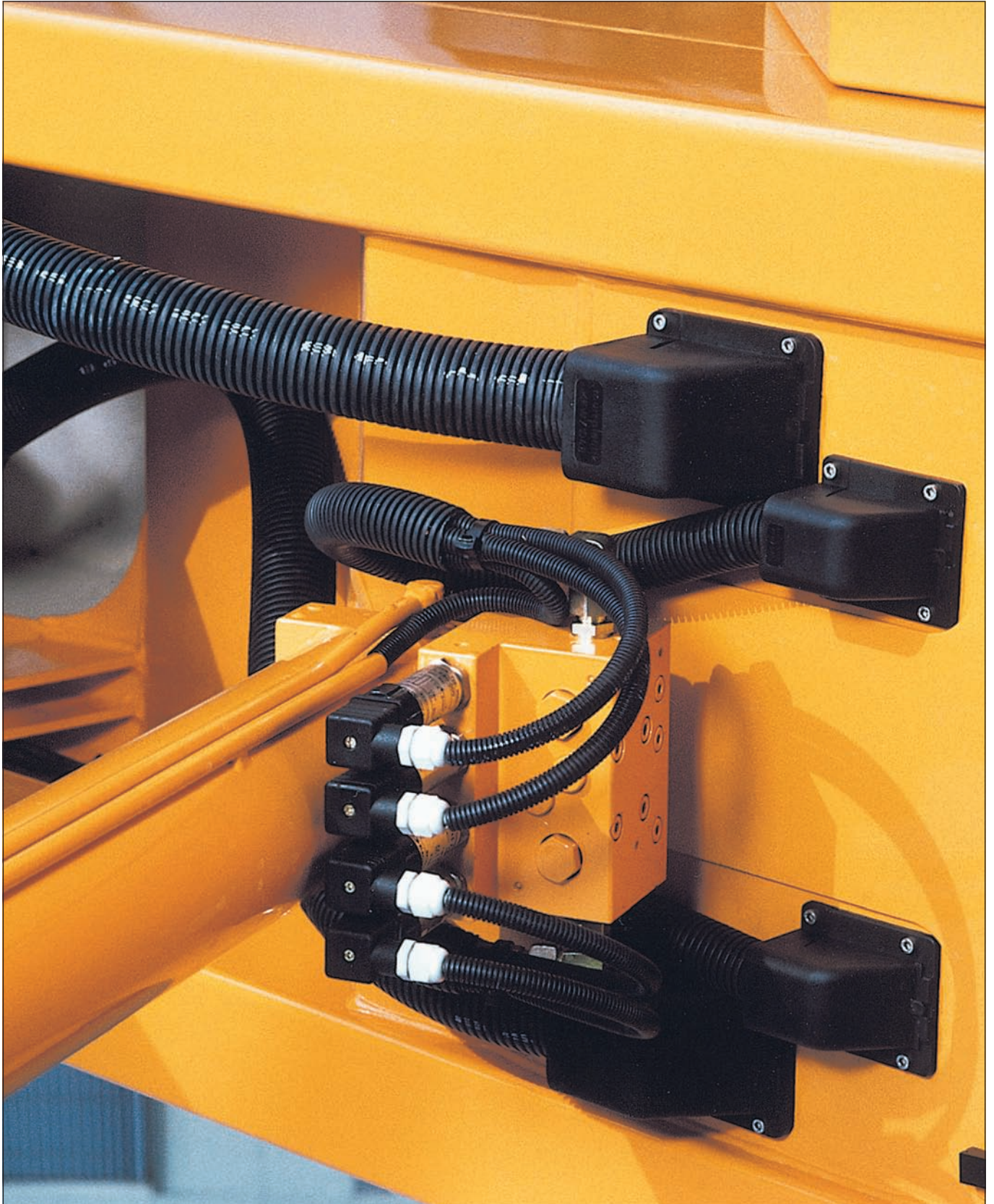
The cable diameter may be up to 20% less than the diameter of the hole, but must not undershoot the hole diameter by less than 0.04 inches.

- Variable
- More cables through one fitting
- High protection class

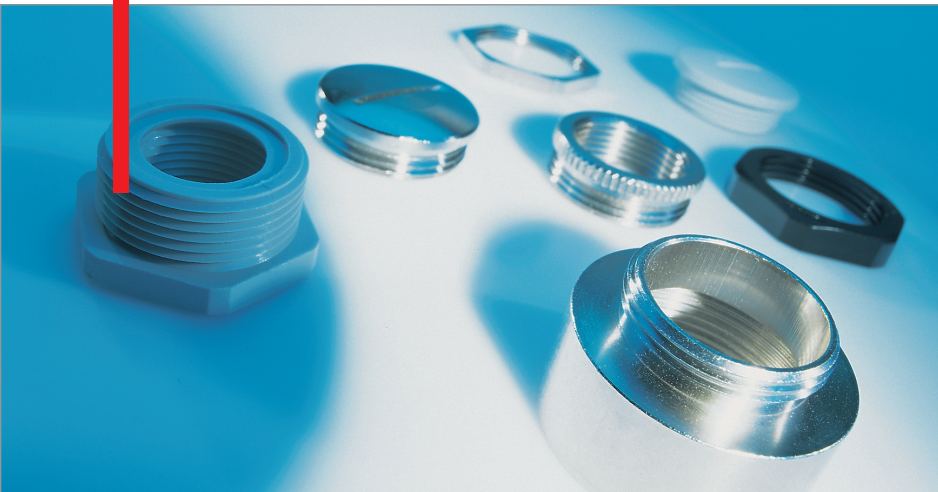


KV-ME

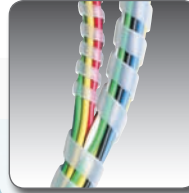
Type	Order no.	Number x Ø inch (mm)	Suitable for metric	Suitable for Pg	Suitable for NPT	Pack qty.
KV-ME M16/Pg09-4x1.4	8358221000	4 x 0.06 (1.4)	M 16	Pg 09	NPT 3/8"	50
KV-ME M16/Pg09-2x3	8358221200	2 x 0.12 (3.0)	M 16	Pg 09	NPT 3/8"	50
KV-ME M20/Pg13.5-2x5	8358222000	2 x 0.20 (5.0)	M 20	Pg 13.5	NPT 1/2"	50
KV-ME M20/Pg13.5-3x2	8358222200	3 x 0.08 (2.0)	M 20	Pg 13.5	NPT 1/2"	50
KV-ME M20/Pg13.5-3x4	8358222400	3 x 0.16 (4.0)	M 20	Pg 13.5	NPT 1/2"	50
KV-ME M20/Pg13.5-6x3	8358222600	6 x 0.12 (3.0)	M 20	Pg 13.5	NPT 1/2"	50
KV-ME Pg11-2x3	8358221400	2 x 0.12 (3.0)	-	Pg 11	-	50
KV-ME Pg11-2x4	8358221600	2 x 0.16 (4.0)	-	Pg 11	-	50
KV-ME Pg11-3x3	8358221800	3 x 0.12 (3.0)	-	Pg 11	-	50
KV-ME Pg16-2x6	8358222800	2 x 0.24 (6.0)	-	Pg 16	-	50
KV-ME Pg16-3x3	8358223000	3 x 0.12 (3.0)	-	Pg 16	-	50
KV-ME Pg16-3x4	8358223200	3 x 0.16 (4.0)	-	Pg 16	-	50
KV-ME Pg16-3x5.6	8358223400	3 x 0.22 (5.6)	-	Pg 16	-	50
KV-ME Pg16-4x4	8358223600	4 x 0.16 (4.0)	-	Pg 16	-	50
KV-ME Pg16-5x4	8358223800	5 x 0.16 (4.0)	-	Pg 16	-	50
KV-ME Pg16-6x4	8358224000	6 x 0.16 (4.0)	-	Pg 16	-	50
KV-ME M25/Pg21-2x8	8358224200	2 x 0.31 (8.0)	M 25	Pg 21	NPT 3/4"	50
KV-ME M25/Pg21-3x7	8358224400	3 x 0.28 (7.0)	M 25	Pg 21	NPT 3/4"	50
KV-ME M25/Pg21-4x6	8358224600	4 x 0.24 (6.0)	M 25	Pg 21	NPT 3/4"	50
KV-ME M32/Pg29-6x6.5	8358224800	6 x 0.26 (6.5)	M 32	Pg 29	-	50
KV-ME M32/Pg29-4x9	8358225000	4 x 0.35 (9.0)	M 32	Pg 29	-	25
KV-ME M40/Pg36-blank	8358228400	-	M 40	Pg 36	NPT 1 1/2"	25



# Accessories



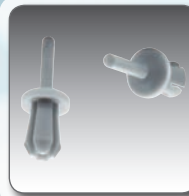
## Accessories product range



### Type SB/SBF (spiral tape)

Spiral tapes are used to bundle cable harnesses efficiently and simply. The spiral tapes also protect the insulation of the wires.

Page 222



### Type BN (fixing rivets)

Plastic expansion rivets for the quick installation of components, e.g. cable ducts.

Page 223



### Type KB/KBM (cable ties)

Cable ties are a reliable method for the economic bundling and fastening of cables. Metal cable ties KBM for EMV solutions.

Page 224



### Type BF (cable tie)

Cable tie with title block. For use with ink pens or permanent waterproof markers.

Page 226



### Type SH (screwed holders)

The SH screw-down holder is used to fix individual cables using screw or rivets cost-effectively.

Page 227



### Type OR-NBR (O-ring)

O-ring for sealing threaded connections resulting in higher protection ratings, e.g. on cable fittings.

Page 216



### Type KH (screwed and adhesive holders)

Adhesive holder, plastic. The retention force can be increased by additional fastening with a screw.

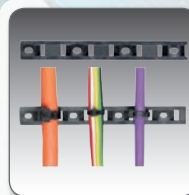
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### Type ET (end sleeve)

The open end of a conduit can be closed using the end sleeve and protruding cables can be centered.

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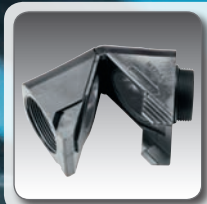


### Type KBL (cable tie rail)

Quick and easy fitting of cables. Cable ties may be pushed on if a rail is already fitted.

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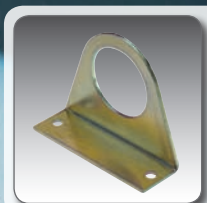




**Type KAW (plastic connection angle)**

The KAW 90° plastic connection angle is a foldable angle connector. Combinable with cable or conduit fittings.


Page 218



**Type BWM (angle bracket)**

Universal holder for fastening fittings to equipment and machinery.


Page 219



**Type SS (conduit clamp)**

Conduit clamps for easy attachment of conduits from our conduit product range.

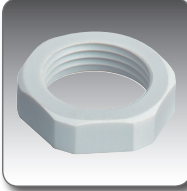
Page 220



**Type SSG (conduit clamp)**

Metal conduit clamp with halogen-free elastomer coating.


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**Type KGM (plastic locknut)**

Plastic locknut made from self-extinguishing polyamide with metric or Pg thread.

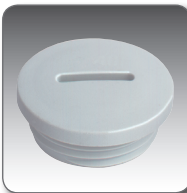
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**Type GM (metal locknut)**

Lock nut made of metal with metric or Pg thread.

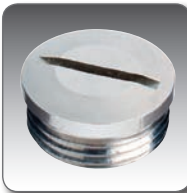
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**Type BSTK (plastic dummy plug)**

Dummy plug made of plastic with metric or Pg thread. IP 65 protection rating is achieved using additional O-ring type OR.

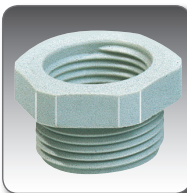
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**Type BST (metal dummy plug)**

Dummy plug made of metal with metric or Pg thread. IP 65 protection rating is achieved using additional O-ring type OR.


Page 209



**Type KRR (plastic reducing bush)**

Thread reducing bush made of plastic with metric or Pg thread.


Page 210



**Type RR (metal reducing bush)**

Thread reducing bush made of metal with metric or Pg thread. Knurled or hexagon version, depending on type.

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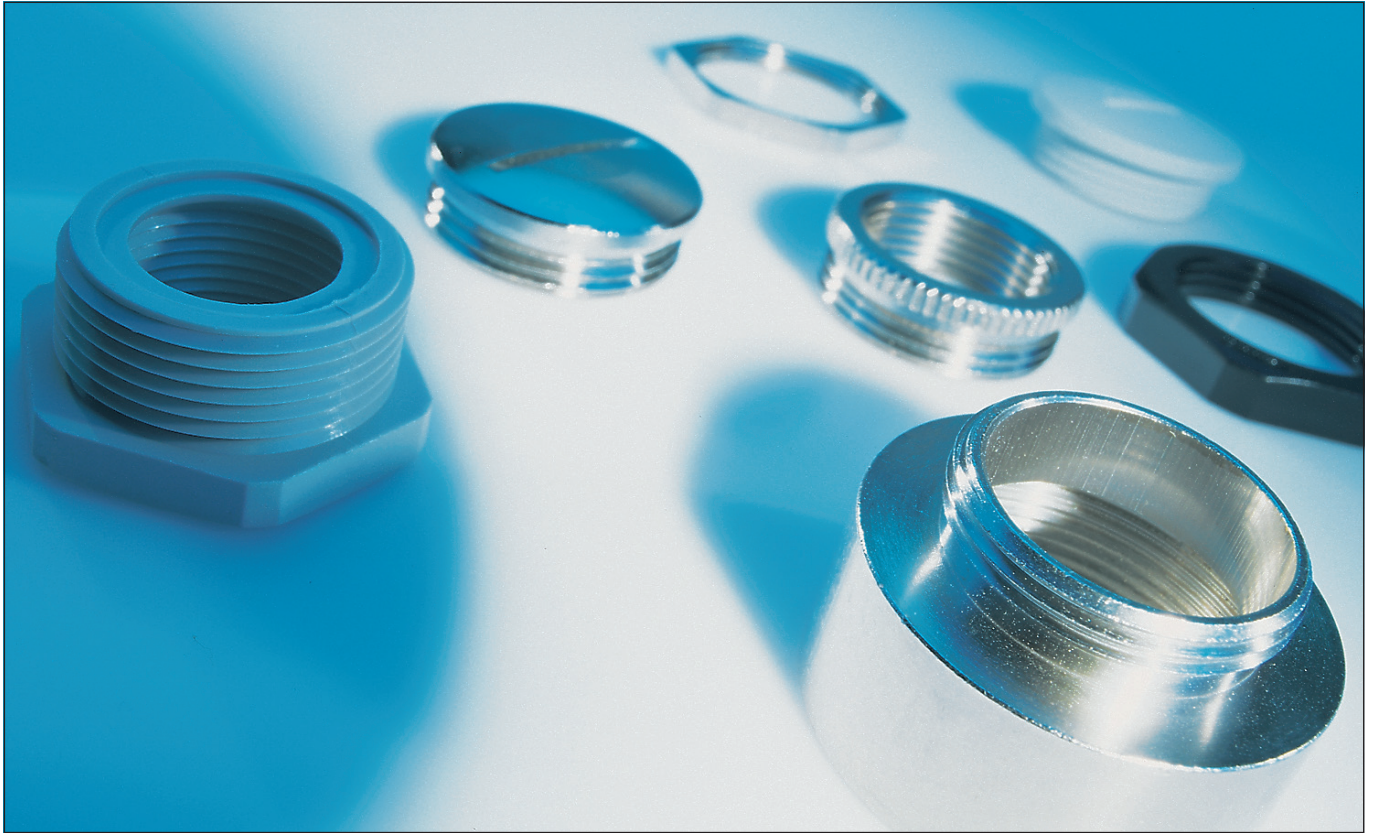
**Type ER/EG (metal extension)**

Thread extension made of metal with metric or Pg thread. Round or hexagonal version, depending on type.

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## Advantages



### Without accessories nothing works

A comprehensive range of accessories is available, including locknuts, reducing bushes, various fasteners, cable ties, etc.

Different materials, thread types and thread sizes ensure a wide range of uses for many applications.



- ✓ Large range of accessories
- ✓ Different materials
- ✓ Various thread types and sizes
- ✓ Universal
- ✓ Easy handling

## Material data

	Material	Temperature area [°F]			Fire specifications UL94	Halogen-free	Phosphorous-free	Cadmium-free	Asbestos-free	Lead-free	Silicone-free	RoHS Compliant
		Min.	Max.	Short periods								
KGM	Polyamide PA6	-22	212	266	V0	✓	✓	✓	✓	✓	✓	✓
GM	Brass, nickel-plated											✓
BSTK	Polyamide PA6	-22	212	266	HB	✓	✓	✓	✓	✓	✓	✓
BST	Brass, nickel-plated											✓
KRR	Polyamide PA6	-22	212	266	HB	✓	✓	✓	✓	✓	✓	✓
RR	Brass, nickel-plated											✓
ER	Brass, nickel-plated											✓
EG	Brass, nickel-plated											✓
OR-NBR	NBR	-13	248			✓	✓	✓	✓	✓	✓	✓
ET	Thermoplastic elastomer	-40	248	302	HB	✓	✓	✓	✓	✓	✓	✓
KAW	Polyamide PA6 / NBR	-4	112		V0	✓	✓	✓	✓	✓	✓	✓
BWM	Galvanized sheet steel											✓
SS	Galvanized sheet steel											
SSG	Sheet steel, galvanized / EPDM											✓
SB	Polyethylene	-60	185			✓	✓	✓	✓	✓	✓	✓
SBF	Polyethylene	-60	185		V0	✓	✓	✓	✓	✓	✓	✓
BN	Hostalene	-40	112			✓	✓	✓	✓	✓	✓	✓
KB natural color	Polyamide PA6.6	-13	185		V0	✓	✓	✓	✓	✓	✓	
KB black	Polyamide PA6.6 UV stabilized	-40	221		V0	✓	✓	✓	✓	✓	✓	
KKB	Polyamide PA6.6 UV stabilized	-40	221		V0	✓	✓	✓	✓	✓	✓	
KBM	Stainless steel 1.4301											
BF	Polyamide PA6.6	-13	185			✓	✓	✓	✓	✓	✓	
SH	Polyamide PA6.6	-40	185			✓	✓	✓	✓	✓	✓	
KH	Polyamide PA6.6	-40	185			✓	✓	✓	✓	✓	✓	
KBL	Polyamide PA6.6	-40	112		V0	✓	✓	✓	✓	✓	✓	✓



## Type KGM (plastic lock nut)

RoHS  
compliant



-22 to 212 °F  
transient 266 °F

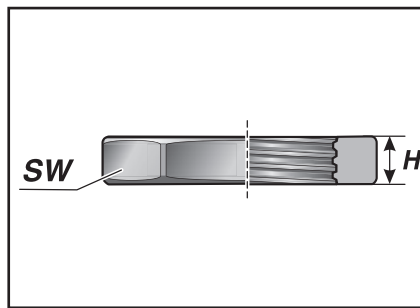
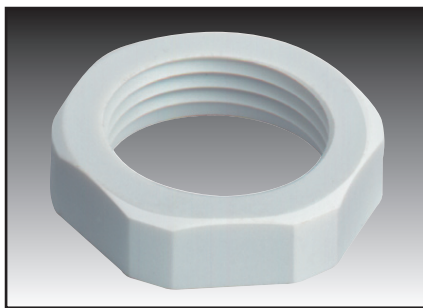


Mod. polyamide



VO

Plastic lock nut with self-extinguishing polyamide with metric or Pg thread.



KGM

Type	Order no.	Colour	Internal thread inch	H inch (mm)	SW inch (mm)	Pack qty.
Metric version						
KGM-M12x1.5	83727250	black	M12x1.5	0.20 (5.0)	0.67 (17.0)	100
KGM-M16x1.5	83727252	black	M16x1.5	0.20 (5.0)	0.87 (22.0)	100
KGM-M20x1.5	83727254	black	M20x1.5	0.24 (6.0)	1.02 (26.0)	100
KGM-M25x1.5	83727256	black	M25x1.5	0.24 (6.0)	1.26 (32.0)	100
KGM-M32x1.5	83727258	black	M32x1.5	0.28 (7.0)	1.61 (41.0)	100
KGM-M40x1.5	83727260	black	M40x1.5	0.28 (7.0)	1.97 (50.0)	50
KGM-M50x1.5	83727262	black	M50x1.5	0.31 (8.0)	2.36 (60.0)	50
KGM-M63x1.5	83727264	black	M63x1.5	0.31 (8.0)	2.95 (75.0)	50
Pg version						
KGM-Pg 07	83722250	black	Pg 07	0.20 (5.0)	0.75 (19.0)	100
KGM-Pg 09	83722252	black	Pg 09	0.20 (5.0)	0.87 (22.0)	100
KGM-Pg 11	83722254	black	Pg 11	0.20 (5.0)	0.94 (24.0)	100
KGM-Pg 13.5	83722256	black	Pg 13.5	0.24 (6.0)	1.06 (27.0)	100
KGM-Pg 16	83722258	black	Pg 16	0.24 (6.0)	1.18 (30.0)	100
KGM-Pg 21	83722260	black	Pg 21	0.26 (6.5)	1.42 (36.0)	100
KGM-Pg 29	83722262	black	Pg 29	0.28 (7.0)	1.81 (46.0)	50
KGM-Pg 36	83722264	black	Pg 36	0.30 (7.5)	2.36 (60.0)	25





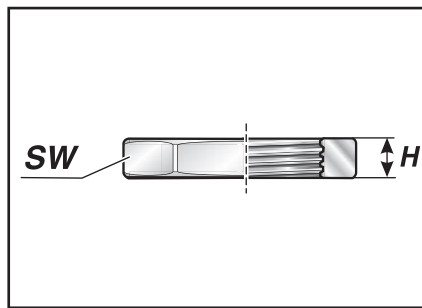
## Type GM (metal lock nut)

RoHS compliant



Brass, nickel-plated

Lock nut made of metal with metric or Pg thread.



GM

Type	Order no.	Internal thread	H inch (mm)	SW inch (mm)	Pack qty.
Metric version					
GM-M12x1.5	83727010	M12x1.5	0.11 (2.8)	0.59 (15.0)	100
GM-M16x1.5	83727012	M16x1.5	0.11 (2.8)	0.75 (19.0)	100
GM-M20x1.5	83727014	M20x1.5	0.12 (3.0)	0.94 (24.0)	100
GM-M25x1.5	83727016	M25x1.5	0.14 (3.5)	1.18 (30.0)	100
GM-M32x1.5	83727018	M32x1.5	0.18 (4.5)	1.42 (36.0)	100
GM-M40x1.5	83727020	M40x1.5	0.20 (5.0)	1.81 (46.0)	50
GM-M50x1.5	83727022	M50x1.5	0.20 (5.0)	2.36 (60.0)	50
GM-M63x1.5	83727024	M63x1.5	0.24 (6.0)	2.76 (70.0)	50
Pg version					
GM-Pg 07	83722010	Pg 07	0.11 (2.8)	0.59 (15.0)	100
GM-Pg 09	83722012	Pg 09	0.11 (2.8)	0.71 (18.0)	100
GM-Pg 11	83722014	Pg 11	0.12 (3.0)	0.83 (21.0)	100
GM-Pg 13.5	83722016	Pg 13.5	0.12 (3.0)	0.91 (23.0)	100
GM-Pg 16	83722018	Pg 16	0.12 (3.0)	1.02 (26.0)	100
GM-Pg 21	83722020	Pg 21	0.14 (3.5)	1.26 (32.0)	100
GM-Pg 29	83722022	Pg 29	0.16 (4.0)	1.61 (41.0)	100
GM-Pg 36	83722024	Pg 36	0.20 (5.0)	2.01 (51.0)	50
GM-Pg 42	83722026	Pg 42	0.20 (5.0)	2.36 (60.0)	50
GM-Pg 48	83722028	Pg 48	0.22 (5.5)	2.52 (64.0)	50

## Type BSTK (plastic dummy plug)

RoHS  
compliant



-22 to 212 °F  
transient 266 °F



Mod. polyamide

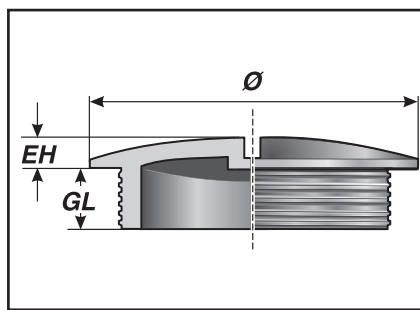


HB



IP 54  
IP 65 with add. sealing ring type OR

Dummy plug made of plastic with metric or Pg thread.  
IP 65 protection rating is achieved using additional O-ring type OR  
(O-ring not included in delivery).



BSTK

Type	Order no.	Color	Outside thread	EH inch (mm)	GL inch (mm)	Ø inch (mm)	Pack qty.
<b>Metric version</b>							
BSTK-M12x1.5	83726450	black	M12x1.5	0.12 (3.0)	0.24 (6.0)	0.59 (15.0)	100
BSTK-M16x1.5	83726452	black	M16x1.5	0.14 (3.5)	0.24 (6.0)	0.79 (20.0)	100
BSTK-M20x1.5	83726454	black	M20x1.5	0.16 (4.0)	0.24 (6.0)	0.94 (24.0)	100
BSTK-M25x1.5	83726456	black	M25x1.5	0.18 (4.5)	0.31 (8.0)	1.18 (30.0)	100
BSTK-M32x1.5	83726458	black	M32x1.5	0.18 (4.5)	0.31 (8.0)	1.46 (37.0)	100
BSTK-M40x1.5	83726460	black	M40x1.5	0.22 (5.5)	0.31 (8.0)	1.81 (46.0)	50
BSTK-M50x1.5	83726462	black	M50x1.5	0.22 (5.5)	0.39 (10.0)	2.20 (56.0)	50
BSTK-M63x1.5	83726464	black	M63x1.5	0.18 (4.5)	0.47 (12.0)	2.76 (70.0)	50
<b>Pg version</b>							
BSTK-Pg 07	83721410	grey	Pg 07	0.06 (1.5)	0.24 (6.0)	0.59 (15.0)	100
BSTK-Pg 09	83721412	grey	Pg 09	0.10 (2.5)	0.24 (6.0)	0.75 (19.0)	100
BSTK-Pg 11	83721414	grey	Pg 11	0.12 (3.0)	0.24 (6.0)	0.87 (22.0)	100
BSTK-Pg 13.5	83721416	grey	Pg 13.5	0.14 (3.5)	0.24 (6.0)	0.98 (25.0)	100
BSTK-Pg 16	83721418	grey	Pg 16	0.14 (3.5)	0.24 (6.0)	1.06 (27.0)	100
BSTK-Pg 21	83721420	grey	Pg 21	0.14 (3.5)	0.31 (8.0)	1.30 (33.0)	100
BSTK-Pg 29	83721422	grey	Pg 29	0.14 (3.5)	0.31 (8.0)	1.73 (44.0)	100
BSTK-Pg 36	83721424	grey	Pg 36	0.20 (5.0)	0.39 (10.0)	2.17 (55.0)	50





## Type BST (metal dummy plug)

RoHS  
compliant



Brass, nickel-plated

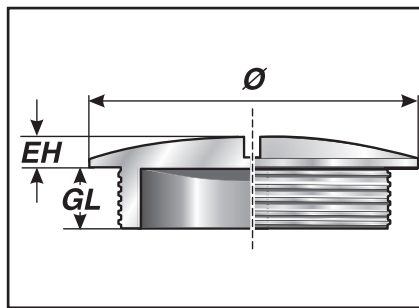
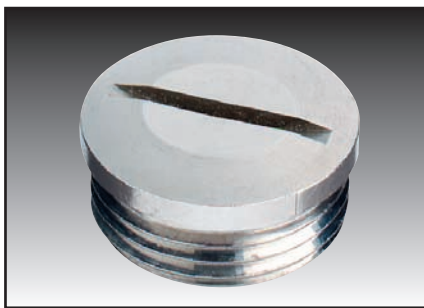


IP 54

IP 65 with add. sealing ring type OR

Dummy plug made of metal with metric or Pg thread.

IP 65 protection rating is achieved using additional O-ring type OR (O-ring not included in delivery).



BST

Type	Order no.	Outside thread	EH inch (mm)	GL inch (mm)	Ø inch (mm)	Pack qty.
<b>Metric version</b>						
BST-M12x1.5	83726210	M12x1.5	0.12 (3.0)	0.20 (5.0)	0.63 (16.0)	100
BST-M16x1.5	83726212	M16x1.5	0.12 (3.0)	0.24 (6.0)	0.79 (20.0)	100
BST-M20x1.5	83726214	M20x1.5	0.12 (3.0)	0.26 (6.5)	0.94 (24.0)	100
BST-M25x1.5	83726216	M25x1.5	0.14 (3.5)	0.28 (7.0)	1.10 (28.0)	100
BST-M32x1.5	83726218	M32x1.5	0.16 (4.0)	0.31 (8.0)	1.38 (35.0)	50
BST-M40x1.5	83726220	M40x1.5	0.16 (4.0)	0.31 (8.0)	1.77 (45.0)	50
BST-M50x1.5	83726222	M50x1.5	0.20 (5.0)	0.35 (9.0)	2.17 (55.0)	25
BST-M63x1.5	83726224	M63x1.5	0.24 (6.0)	0.39 (10.0)	2.68 (68.0)	10
<b>Pg version</b>						
BST-Pg 07	83721210	Pg 07	0.12 (3.0)	0.20 (5.0)	0.55 (14.0)	100
BST-Pg 09	83721212	Pg 09	0.12 (3.0)	0.24 (6.0)	0.67 (17.0)	100
BST-Pg 11	83721214	Pg 11	0.12 (3.0)	0.24 (6.0)	0.79 (20.0)	100
BST-Pg 13.5	83721216	Pg 13.5	0.12 (3.0)	0.26 (6.5)	0.87 (22.0)	100
BST-Pg 16	83721218	Pg 16	0.14 (3.5)	0.26 (6.5)	0.94 (24.0)	100
BST-Pg 21	83721220	Pg 21	0.16 (4.0)	0.28 (7.0)	1.18 (30.0)	100
BST-Pg 29	83721222	Pg 29	0.16 (4.0)	0.31 (8.0)	1.54 (39.0)	50
BST-Pg 36	83721224	Pg 36	0.24 (6.0)	0.35 (9.0)	1.97 (50.0)	25
BST-Pg 42	83721226	Pg 42	0.24 (6.0)	0.39 (10.0)	2.24 (57.0)	25
BST-Pg 48	83721228	Pg 48	0.24 (6.0)	0.39 (10.0)	2.52 (64.0)	10



## Type KRR (plastic reducing bush)

RoHS  
compliant



-22 to 212 °F  
transient 266 °F

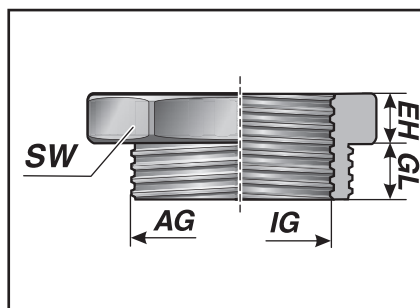
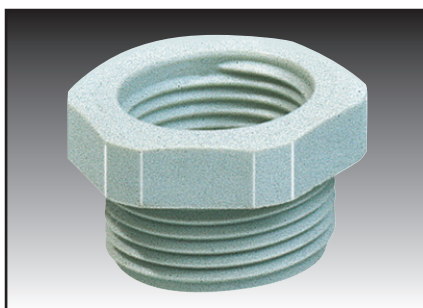


Mod. polyamide



HB

Thread reducing bush made of plastic with metric or Pg thread.  
O-ring not included in delivery.



KRR

Type	Order no.	Color	Outside thread AG	Internal thread IG	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
Metric/metric version								
KRR-M20/M12	83727450	black	M20x1.5	M12x1.5	0.16 (4.0)	0.31 (8.0)	0.94 (24.0)	100
KRR-M20/M16	83727452	black	M20x1.5	M16x1.5	0.16 (4.0)	0.31 (8.0)	0.94 (24.0)	100
KRR-M25/M12	83727454	black	M25x1.5	M12x1.5	0.24 (6.0)	0.31 (8.0)	1.18 (30.0)	100
KRR-M25/M16	83727456	black	M25x1.5	M16x1.5	0.24 (6.0)	0.31 (8.0)	1.18 (30.0)	100
KRR-M25/M20	83727458	black	M25x1.5	M20x1.5	0.24 (6.0)	0.31 (8.0)	1.18 (30.0)	100
KRR-M32/M12	83727460	black	M32x1.5	M12x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M32/M16	83727462	black	M32x1.5	M16x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M32/M20	83727464	black	M32x1.5	M20x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M32/M25	83727466	black	M32x1.5	M25x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M40/M16	83727468	black	M40x1.5	M16x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M40/M20	83727470	black	M40x1.5	M20x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M40/M25	83727472	black	M40x1.5	M25x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M40/M32	83727474	black	M40x1.5	M32x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M50/M20	83727476	black	M50x1.5	M20x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M50/M25	83727478	black	M50x1.5	M25x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M50/M32	83727480	black	M50x1.5	M32x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M50/M40	83727482	black	M50x1.5	M40x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M63/M25	83727484	black	M63x1.5	M25x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
KRR-M63/M32	83727486	black	M63x1.5	M32x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
KRR-M63/M40	83727488	black	M63x1.5	M40x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
KRR-M63/M50	83727490	black	M63x1.5	M50x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
KRR-M20/M12	83727400	grey	M20x1.5	M12x1.5	0.16 (4.0)	0.31 (8.0)	0.94 (24.0)	100
KRR-M20/M16	83727402	grey	M20x1.5	M16x1.5	0.16 (4.0)	0.31 (8.0)	0.94 (24.0)	100
KRR-M25/M12	83727404	grey	M25x1.5	M12x1.5	0.24 (6.0)	0.31 (8.0)	1.18 (30.0)	100
KRR-M25/M16	83727406	grey	M25x1.5	M16x1.5	0.24 (6.0)	0.31 (8.0)	1.18 (30.0)	100
KRR-M25/M20	83727408	grey	M25x1.5	M20x1.5	0.24 (6.0)	0.31 (8.0)	1.18 (30.0)	100

## Type KRR (plastic reducing bush)

RoHS  
compliant

Type	Order no.	Color	Outside thread AG	Internal thread IG	EH inch (mm)	GL inch (mm)	SW inch (mm)	Pack qty.
KRR-M32/M12	83727410	grey	M32x1.5	M12x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M32/M16	83727412	grey	M32x1.5	M16x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M32/M20	83727414	grey	M32x1.5	M20x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M32/M25	83727416	grey	M32x1.5	M25x1.5	0.24 (6.0)	0.39 (10.0)	1.42 (36.0)	50
KRR-M40/M16	83727418	grey	M40x1.5	M16x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M40/M20	83727420	grey	M40x1.5	M20x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M40/M25	83727422	grey	M40x1.5	M25x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M40/M32	83727424	grey	M40x1.5	M32x1.5	0.24 (6.0)	0.39 (10.0)	1.81 (46.0)	50
KRR-M50/M20	83727426	grey	M50x1.5	M20x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M50/M25	83727428	grey	M50x1.5	M25x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M50/M32	83727430	grey	M50x1.5	M32x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M50/M40	83727432	grey	M50x1.5	M40x1.5	0.24 (6.0)	0.47 (12.0)	2.17 (55.0)	25
KRR-M63/M25	83727434	grey	M63x1.5	M25x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
KRR-M63/M32	83727436	grey	M63x1.5	M32x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
KRR-M63/M40	83727438	grey	M63x1.5	M40x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
KRR-M63/M50	83727440	grey	M63x1.5	M50x1.5	0.24 (6.0)	0.47 (12.0)	2.68 (68.0)	25
Pg/Pg version								
KRR-Pg 11/07	83722410	grey	Pg 11	Pg 07	0.24 (6.0)	0.31 (8.0)	0.87 (22.0)	100
KRR-Pg 11/09	83722412	grey	Pg 11	Pg 09	0.59 (15.0)	0.31 (8.0)	0.87 (22.0)	100
KRR-Pg 13.5/07	83722414	grey	Pg 13.5	Pg 07	0.24 (6.0)	0.35 (9.0)	0.94 (24.0)	100
KRR-Pg 13/09	83722416	grey	Pg 13.5	Pg 09	0.24 (6.0)	0.35 (9.0)	0.94 (24.0)	100
KRR-Pg 13/11	83722420	grey	Pg 13.5	Pg 11	0.59 (15.0)	0.35 (9.0)	0.94 (24.0)	100
KRR-Pg 16/09	83722418	grey	Pg 16	Pg 09	0.24 (6.0)	0.39 (10.0)	1.06 (27.0)	100
KRR-Pg 16/11	83722422	grey	Pg 16	Pg 11	0.24 (6.0)	0.39 (10.0)	1.06 (27.0)	100
KRR-Pg 16/13.5	83722424	grey	Pg 16	Pg 13.5	0.67 (17.0)	0.39 (10.0)	1.06 (27.0)	100
KRR-Pg 21/11	83722426	grey	Pg 21	Pg 11	0.20 (5.0)	0.43 (11.0)	1.26 (32.0)	100
KRR-Pg 21/13.5	83722428	grey	Pg 21	Pg 13.5	0.20 (5.0)	0.43 (11.0)	1.26 (32.0)	100
KRR-Pg 21/16	83722430	grey	Pg 21	Pg 16	0.20 (5.0)	0.43 (11.0)	1.26 (32.0)	100
KRR-Pg 29/13	83722432	grey	Pg 29	Pg 13	0.24 (6.0)	0.43 (11.0)	1.57 (40.0)	50
KRR-Pg 29/16	83722434	grey	Pg 29	Pg 16	0.24 (6.0)	0.43 (11.0)	1.57 (40.0)	50
KRR-Pg 29/21	83722436	grey	Pg 29	Pg 21	0.24 (6.0)	0.43 (11.0)	1.57 (40.0)	50
KRR-Pg 36/16	83722438	grey	Pg 36	Pg 16	0.24 (6.0)	0.51 (13.0)	1.97 (50.0)	50
KRR-Pg 36/21	83722440	grey	Pg 36	Pg 21	0.24 (6.0)	0.51 (13.0)	1.97 (50.0)	50
KRR-Pg 36/29	83722442	grey	Pg 36	Pg 29	0.24 (6.0)	0.71 (18.0)	1.97 (50.0)	50
KRR-Pg 42/21	83722444	grey	Pg 42	Pg 21	0.24 (6.0)	0.71 (18.0)	2.17 (55.0)	25
KRR-Pg 42/29	83722446	grey	Pg 42	Pg 29	0.24 (6.0)	0.71 (18.0)	2.17 (55.0)	25
KRR-Pg 42/36	83722448	grey	Pg 42	Pg 36	0.24 (6.0)	0.71 (18.0)	2.17 (55.0)	25
KRR-Pg 48/29	83722450	grey	Pg 48	Pg 29	0.24 (6.0)	0.59 (15.0)	2.36 (60.0)	25
KRR-Pg 48/36	83722452	grey	Pg 48	Pg 36	0.28 (7.0)	0.63 (16.0)	2.36 (60.0)	25



## Type RR (metal reducing bush)

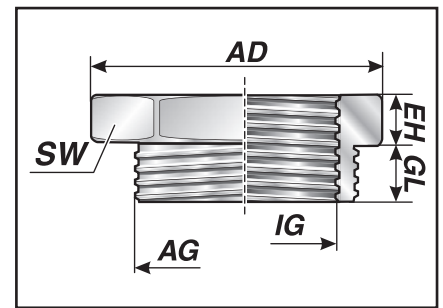
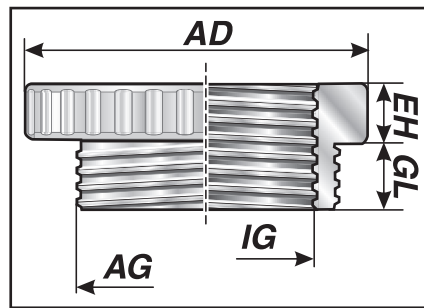
RoHS  
compliant



Brass, nickel-plated

Thread reducing bush made of metal with metric or Pg thread.  
Knurled or hexagon version, depending on type.

- Metric/metric
- Metric/Pg
- Pg/Pg



RR

Type	Order no.	Outside thread AG	Internal thread IG	EH inch (mm)	GL inch (mm)	AD inch (mm)	SW inch (mm)	Pack qty.
Metric/metric version (without O-ring)								
RR-M16/M12	83727610	M16x1.5	M12x1.5	0.10 (2.5)	0.24 (6.0)	0.79 (20.0)	-	100
RR-M20/M12	83727612	M20x1.5	M12x1.5	0.10 (2.5)	0.26 (6.5)	0.94 (24.0)	-	100
RR-M20/M16	83727614	M20x1.5	M16x1.5	0.10 (2.5)	0.26 (6.5)	0.94 (24.0)	-	100
RR-M25/M16	83727616	M25x1.5	M16x1.5	0.12 (3.0)	0.28 (7.0)	1.18 (30.0)	-	100
RR-M25/M20	83727618	M25x1.5	M20x1.5	0.12 (3.0)	0.28 (7.0)	1.18 (30.0)	-	100
RR-M32/M20	83727620	M32x1.5	M20x1.5	0.14 (3.5)	0.31 (8.0)	1.54 (39.0)	-	50
RR-M32/M25	83727622	M32x1.5	M25x1.5	0.14 (3.5)	0.31 (8.0)	1.54 (39.0)	-	50
RR-M40/M25	83727624	M40x1.5	M25x1.5	0.14 (3.5)	0.35 (9.0)	1.97 (50.0)	-	25
RR-M40/M32	83727626	M40x1.5	M32x1.5	0.14 (3.5)	0.35 (9.0)	1.97 (50.0)	-	25
RR-M50/M32	83727628	M50x1.5	M32x1.5	0.16 (4.0)	0.39 (10.0)	2.24 (57.0)	-	25
RR-M50/M40	83727630	M50x1.5	M40x1.5	0.16 (4.0)	0.39 (10.0)	2.24 (57.0)	-	25
RR-M63/M40	83727632	M63x1.5	M40x1.5	0.16 (4.0)	0.39 (10.0)	2.52 (64.0)	-	10
RR-M63/M50	83727634	M63x1.5	M50x1.5	0.16 (4.0)	0.39 (10.0)	2.52 (64.0)	-	10
Metric/Pg version (with O-ring on external thread)								
RR-M16/Pg7	83727810	M16x1.5	Pg 7	0.12 (3.0)	0.20 (5.0)	-	0.67 (17.0)	100
RR-M20/Pg9	83727812	M20x1.5	Pg 9	0.12 (3.0)	0.24 (6.0)	-	0.87 (22.0)	100
RR-M25/Pg9	83727814	M25x1.5	Pg 9	0.12 (3.0)	0.28 (7.0)	-	1.06 (27.0)	100
RR-M25/Pg11	83727816	M25x1.5	Pg 11	0.12 (3.0)	0.28 (7.0)	-	1.06 (27.0)	100
RR-M25/Pg13.5	83727818	M25x1.5	Pg 13.5	0.12 (3.0)	0.28 (7.0)	-	1.06 (27.0)	100
RR-M32/Pg13.5	83727820	M32x1.5	Pg 13.5	0.12 (3.0)	0.31 (8.0)	-	1.34 (34.0)	50
RR-M32/Pg16	83727822	M32x1.5	Pg 16	0.12 (3.0)	0.31 (8.0)	-	1.34 (34.0)	50
RR-M32/Pg21	83727824	M32x1.5	Pg 21	0.12 (3.0)	0.31 (8.0)	-	1.34 (34.0)	50
RR-M40/Pg16	83727826	M40x1.5	Pg 16	0.16 (4.0)	0.31 (8.0)	-	1.69 (43.0)	25
RR-M40/Pg21	83727828	M40x1.5	Pg 21	0.16 (4.0)	0.31 (8.0)	-	1.69 (43.0)	25
RR-M40/Pg29	83727830	M40x1.5	Pg 29	0.16 (4.0)	0.31 (8.0)	-	1.69 (43.0)	25
RR-M50/Pg21	83727832	M50x1.5	Pg 21	0.16 (4.0)	0.35 (9.0)	-	2.17 (55.0)	25

## Type RR (metal reducing bush)

RoHS  
compliant

Type	Order no.	Outside thread AG	Internal thread IG	EH inch (mm)	GL inch (mm)	AD inch (mm)	SW inch (mm)	Pack qty.
RR-M50/Pg29	83727834	M50x1.5	Pg 29	0.16 (4.0)	0.35 (9.0)	-	2.17 (55.0)	25
RR-M50/Pg36	83727836	M50x1.5	Pg 36	0.16 (4.0)	0.35 (9.0)	-	2.17 (55.0)	25
RR-M63/Pg29	83727838	M63x1.5	Pg 29	0.16 (4.0)	0.39 (10.0)	-	2.56 (65.0)	10
RR-M63/Pg36	83727840	M63x1.5	Pg 36	0.16 (4.0)	0.39 (10.0)	-	2.56 (65.0)	10
RR-M63/Pg42	83727842	M63x1.5	Pg 42	0.16 (4.0)	0.39 (10.0)	-	2.56 (65.0)	10
Pg/Pg version (without O-ring)								
RR-Pg 09/07	83722610	Pg 09	Pg 07	0.10 (2.5)	0.24 (6.0)	0.67 (17.0)	-	100
RR-Pg 11/07	83722612	Pg 11	Pg 07	0.10 (2.5)	0.24 (6.0)	-	0.79 (20.0)	100
RR-Pg 11/09	83722614	Pg 11	Pg 09	0.10 (2.5)	0.24 (6.0)	0.79 (20.0)	-	100
RR-Pg 13.5/09	83722616	Pg 13.5	Pg 09	0.10 (2.5)	0.26 (6.5)	0.87 (22.0)	-	100
RR-Pg 13.5/11	83722618	Pg 13.5	Pg 11	0.10 (2.5)	0.26 (6.5)	0.87 (22.0)	-	100
RR-Pg 16/09	83722620	Pg 16	Pg 09	0.12 (3.0)	0.26 (6.5)	0.94 (24.0)	-	100
RR-Pg 16/11	83722622	Pg 16	Pg 11	0.12 (3.0)	0.26 (6.5)	0.94 (24.0)	-	100
RR-Pg 16/13.5	83722624	Pg 16	Pg 13.5	0.12 (3.0)	0.26 (6.5)	0.94 (24.0)	-	100
RR-Pg 21/11	83722626	Pg 21	Pg 11	0.12 (3.0)	0.28 (7.0)	1.18 (30.0)	-	50
RR-Pg 21/13.5	83722628	Pg 21	Pg 13.5	0.12 (3.0)	0.28 (7.0)	1.18 (30.0)	-	50
RR-Pg 21/16	83722630	Pg 21	Pg 16	0.12 (3.0)	0.28 (7.0)	1.18 (30.0)	-	50
RR-Pg 29/21	83722632	Pg 29	Pg 21	0.14 (3.5)	0.31 (8.0)	1.54 (39.0)	-	25
RR-Pg 36/29	83722634	Pg 36	Pg 29	0.14 (3.5)	0.35 (9.0)	1.97 (50.0)	-	25
RR-Pg 42/36	83722636	Pg 42	Pg 36	0.16 (4.0)	0.39 (10.0)	2.24 (57.0)	-	25
RR-Pg 48/36	83722638	Pg 48	Pg 36	0.16 (4.0)	0.39 (10.0)	2.52 (64.0)	-	25





## Type ER/EG (metal extension)

RoHS  
compliant



Brass, nickel-plated

Thread extension made of metal with metric or Pg thread.

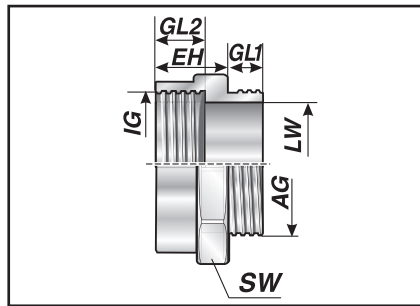
Round or hexagon version, depending on type.

Some with O-ring on external thread.

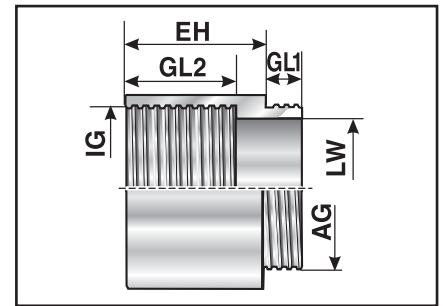
- Metric/metric
- Metric/Pg
- Pg/Pg



ER



ER



EG

Type	Order no.	Outside thread AG	Internal thread IG	EH inch (mm)	GL 1 inch (mm)	GL 2 inch (mm)	Ø inch (mm)	SW inch (mm)	Pack qty.
Metric/metric version									
ER-M12/M16	83728010	M12x1.5	M16x1.5	0.39 (10.0)	0.20 (5.0)	0.35 (9.0)	-	0.71 (18.0)	100
ER-M16/M20	83728012	M16x1.5	M20x1.5	0.41 (10.5)	0.20 (5.0)	0.37 (9.5)	-	0.87 (22.0)	100
ER-M20/M25	83728014	M20x1.5	M25x1.5	0.45 (11.5)	0.24 (6.0)	0.41 (10.5)	-	1.06 (27.0)	50
ER-M25/M32	83728016	M25x1.5	M32x1.5	0.49 (12.5)	0.28 (7.0)	0.43 (11.0)	-	1.34 (34.0)	50
ER-M32/M40	83728018	M32x1.5	M40x1.5	0.57 (14.5)	0.31 (8.0)	0.51 (13.0)	-	1.65 (42.0)	10
ER-M40/M50	83728020	M40x1.5	M50x1.5	0.77 (19.5)	0.31 (8.0)	0.71 (18.0)	-	2.05 (52.0)	10
ER-M50/M63	83728022	M50x1.5	M63x1.5	0.87 (22.0)	0.35 (9.0)	0.79 (20.0)	-	2.56 (65.0)	10
Metric/Pg version									
EG-M12/Pg 09	83726810	M12x1.5	Pg 09	0.39 (10.0)	0.20 (5.0)	0.35 (9.0)	0.67 (17.0)	-	100
EG-M16/Pg 11	83726812	M16x1.5	Pg 11	0.41 (10.5)	0.20 (5.0)	0.37 (9.5)	0.79 (20.0)	-	100
EG-M20/Pg 16 *	83726814	M20x1.5	Pg 16	0.49 (12.5)	0.24 (6.0)	0.41 (10.5)	0.94 (24.0)	-	100
EG-M25/Pg 21	83726816	M25x1.5	Pg 21	0.57 (14.5)	0.28 (7.0)	0.43 (11.0)	1.18 (30.0)	-	100
EG-M32/Pg 29 *	83726818	M32x1.5	Pg 29	0.87 (22.0)	0.31 (8.0)	0.51 (13.0)	1.54 (39.0)	-	50
EG-M40/Pg 36 *	83726820	M40x1.5	Pg 36	0.77 (19.5)	0.31 (8.0)	0.71 (18.0)	1.97 (50.0)	-	50
EG-M50/Pg 42 *	83726822	M50x1.5	Pg 42	0.87 (22.0)	0.35 (9.0)	0.79 (20.0)	2.24 (57.0)	-	25
EG-M50/Pg 48 *	83726824	M50x1.5	Pg 48	0.91 (23.0)	0.35 (9.0)	0.79 (20.0)	2.52 (64.0)	-	25
Pg/Pg version									
EG-Pg 07 / 09	83721810	Pg 07	Pg 09	0.39 (10.0)	0.20 (5.0)	0.35 (9.0)	0.67 (17.0)	-	100
EG-Pg 09/11	83721812	Pg 09	Pg 11	0.41 (10.5)	0.24 (6.0)	0.37 (9.5)	0.79 (20.0)	-	100
EG-Pg 09/13.5	83721814	Pg 09	Pg 13.5	0.41 (10.5)	0.24 (6.0)	0.41 (10.5)	0.87 (22.0)	-	100
EG-Pg 11/13.5	83721816	Pg 11	Pg 13.5	0.45 (11.5)	0.24 (6.0)	0.41 (10.5)	0.87 (22.0)	-	100
EG-Pg 11/16	83721818	Pg 11	Pg 16	0.45 (11.5)	0.24 (6.0)	0.43 (11.0)	0.94 (24.0)	-	100
EG-Pg 13.5/16	83721820	Pg 13.5	Pg 16	0.53 (13.5)	0.26 (6.5)	0.43 (11.0)	0.94 (24.0)	-	100
EG-Pg 16/21	83721822	Pg 16	Pg 21	0.61 (15.5)	0.26 (6.5)	-	1.18 (30.0)	-	100
EG-Pg 21/29	83721824	Pg 21	Pg 29	0.63 (16.0)	0.28 (7.0)	0.57 (14.5)	1.54 (39.0)	-	50

## Type ER/EG (metal extension)

RoHS  
compliant

Type	Order no.	Outside thread AG	Internal thread IG	EH inch (mm)	GL 1 inch (mm)	GL 2 inch (mm)	Ø inch (mm)	SW inch (mm)	Pack qty.
EG-Pg 29/36	83721826	Pg 29	Pg 36	0.77 (19.5)	0.31 (8.0)	0.71 (18.0)	1.97 (50.0)	-	25
EG-Pg 36/42	83721828	Pg 36	Pg 42	0.87 (22.0)	0.35 (9.0)	0.79 (20.0)	1.97 (50.0)	-	10
EG-Pg 42 / 48	83721830	Pg 42	Pg 48	0.91 (23.0)	0.39 (10.0)	0.83 (21.0)	2.52 (64.0)	-	10
Pg/metric version									
ER-Pg 07 / M12	83728210	Pg 07	M12x1.5	0.39 (10.0)	0.20 (5.0)	0.30 (7.50)	-	0.55 (14.0)	100
ER-Pg 09/M16	83728212	Pg 09	M16x1.5	0.39 (10.0)	0.24 (6.0)	0.30 (7.50)	-	0.75 (19.0)	100
ER-Pg 11/M16	83728214	Pg 11	M16x1.5	0.39 (10.0)	0.24 (6.0)	0.30 (7.50)	-	0.87 (22.0)	100
ER-Pg 13.5/M16	83728216	Pg13.5	M20x1.5	0.43 (11.0)	0.26 (6.5)	0.33 (8.50)	-	0.94 (24.0)	100
ER-Pg 16/M16	83728218	Pg 16	M20x1.5	0.43 (11.0)	0.26 (6.5)	0.33 (8.50)	-	1.06 (27.0)	100
ER-Pg 16/M25	83728220	Pg 16	M25x1.5	0.47 (12.0)	0.26 (6.5)	0.37 (9.50)	-	1.18 (30.0)	100
ER-Pg 21/M25	83728222	Pg 21	M25x1.5	0.47 (12.0)	0.28 (7.0)	0.37 (9.50)	-	1.26 (32.0)	100
ER-Pg 21/M32	83728224	Pg 21	M32x1.5	0.51 (13.0)	0.28 (7.0)	0.41 (10.5)	-	1.42 (36.0)	100
ER-Pg 29/M40	83728226	Pg 29	M40x1.5	0.51 (13.0)	0.31 (8.0)	0.43 (11.0)	-	1.69 (43.0)	50
ER-Pg 36/M50	83728228	Pg 36	M50x1.5	0.55 (14.0)	0.35 (9.0)	0.45 (11.5)	-	2.17 (55.0)	25

\* with O-ring on external thread





## Type OR-NBR (O-ring)

RoHS  
compliant

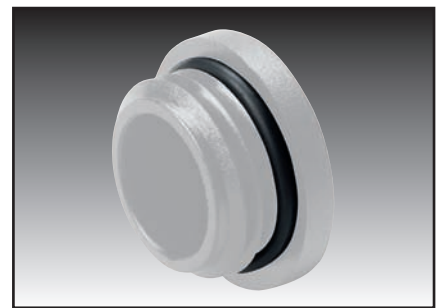
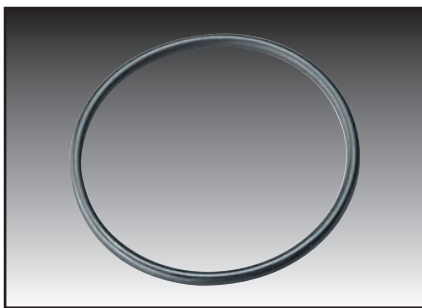
-13 to 248 °F

NBR

O-ring for sealing threaded connections resulting in higher protection ratings, e.g. on cable fittings.

For thread type:

- Metric
- Pg
- NPT



OR-NBR

Type	Order no.	Suitable for metric	Suitable for Pg	Suitable for NPT	Pack qty.
OR-NBR 10x1.5	83481210	M12x1.5	Pg 07	-	100
OR-NBR 12x1.5	83481212	M16x1.5	Pg 09	-	100
OR-NBR 13x2	83481214	-	-	3/8" NPT	100
OR-NBR 16x1.5	83481216	-	Pg 11	-	100
OR-NBR 17x1.8	83481218	M20x1.5	Pg 13.5	-	100
OR-NBR 18x1.5	83481220	-	Pg 16	-	100
OR-NBR 19x1.8	83481222	-	-	1/2" NPT	100
OR-NBR 22x2	83481224	M25x1.5	-	3/4" NPT	100
OR-NBR 26x2	83481226	-	Pg 21	-	100
OR-NBR 29x2	83481228	M32x1.5	-	1" NPT	100
OR-NBR 33x2	83481230	-	Pg 29	-	50
OR-NBR 35x2	83481232	M40x1.5	-	-	50
OR-NBR 43x2	83481234	M50x1.5	Pg 36	-	50
OR-NBR 50x2	83481236	-	Pg 42	-	50
OR-NBR 55x2	83481238	M63x1.5	Pg 48	-	50







## Type KAW (plastic connection angle)

RoHS  
compliant



-4 to 176 °C



Mod. polyamide  
NBR



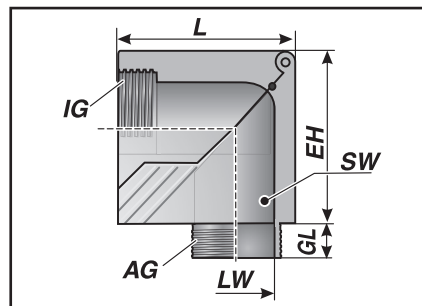
VO



IP 68

The KAW 90° plastic connection angle is a foldable angle connector. It can be combined freely with cable or conduit fittings.

- Easy cable insertion
- High protection rating IP 68
- Easy assembly
- Folds open
- Wide range of connection options
- Includes seal on connecting thread



KAW

Type	Order no.	Color	AG	IG	EH inch (mm)	GL inch (mm)	L inch (mm)	LW inch (mm)	SW inch (mm)	Pack qty.
Metric version										
KAW-M 16x1.5	83661650	black	M 16x1.5	Pg 09	0.91 (23.0)	0.31 (8.0)	1.12 (28.5)	0.39 (10.0)	0.75 (19.0)	25
KAW-M 20x1.5	83661652	black	M 20x1.5	Pg 13.5	1.20 (30.5)	0.35 (9.0)	1.38 (35.0)	0.53 (13.5)	0.94 (24.0)	25
KAW-M 25x1.5	83661654	black	M 25x1.5	Pg 21	1.57 (40.0)	0.43 (11.0)	1.93 (49.0)	0.77 (19.5)	1.30 (33.0)	25
KAW-M 32x1.5	83661656	black	M 32x1.5	Pg 29	2.03 (51.5)	0.43 (11.0)	2.36 (60.0)	1.06 (27.0)	1.65 (42.0)	10
KAW-M 16x1.5	83661610	grey	M 16x1.5	Pg 09	0.91 (23.0)	0.31 (8.0)	1.12 (28.5)	0.39 (10.0)	0.75 (19.0)	25
KAW-M 20x1.5	83661612	grey	M 20x1.5	Pg 13.5	1.20 (30.5)	0.35 (9.0)	1.38 (35.0)	0.53 (13.5)	0.94 (24.0)	25
KAW-M 25x1.5	83661614	grey	M 25x1.5	Pg 21	1.57 (40.0)	0.43 (11.0)	1.93 (49.0)	0.77 (19.5)	1.30 (33.0)	25
KAW-M 32x1.5	83661616	grey	M 32x1.5	Pg 29	2.03 (51.5)	0.43 (11.0)	2.36 (60.0)	1.06 (27.0)	1.65 (42.0)	10
Pg version										
KAW-Pg 09	83661050	black	Pg 09	Pg 09	0.91 (23.0)	0.31 (8.0)	1.12 (28.5)	0.39 (10.0)	0.75 (19.0)	25
KAW-Pg 11	83661052	black	Pg 11	Pg 11	1.06 (27.0)	0.31 (8.0)	1.24 (31.5)	0.47 (12.0)	0.87 (22.0)	25
KAW-Pg 13.5	83661054	black	Pg 13.5	Pg 13.5	1.20 (30.5)	0.35 (9.0)	1.38 (35.0)	0.53 (13.5)	0.94 (24.0)	25
KAW-Pg 16	83661056	black	Pg 16	Pg 16	1.28 (32.5)	0.39 (10.0)	1.48 (37.5)	0.63 (16.0)	1.06 (27.0)	25
KAW-Pg 21	83661058	black	Pg 21	Pg 21	1.57 (40.0)	0.43 (11.0)	1.93 (49.0)	0.79 (20.0)	1.30 (33.0)	25
KAW-Pg 29	83661060	black	Pg 29	Pg 29	2.03 (51.5)	0.43 (11.0)	2.36 (60.0)	1.06 (27.0)	1.65 (42.0)	10
KAW-Pg 09	83661012	grey	Pg 09	Pg 09	0.91 (23.0)	0.31 (8.0)	1.12 (28.5)	0.39 (10.0)	0.75 (19.0)	25
KAW-Pg 11	83661014	grey	Pg 11	Pg 11	1.06 (27.0)	0.31 (8.0)	1.24 (31.5)	0.47 (12.0)	0.87 (22.0)	25
KAW-Pg 13.5	83661016	grey	Pg 13.5	Pg 13.5	1.20 (30.5)	0.35 (9.0)	1.38 (35.0)	0.53 (13.5)	0.94 (24.0)	25
KAW-Pg 16	83661018	grey	Pg 16	Pg 16	1.28 (32.5)	0.39 (10.0)	1.48 (37.5)	0.63 (16.0)	1.06 (27.0)	25
KAW-Pg 21	83661020	grey	Pg 21	Pg 21	1.57 (40.0)	0.43 (11.0)	1.93 (49.0)	0.79 (20.0)	1.30 (33.0)	25
KAW-Pg 29	83661022	grey	Pg 29	Pg 29	2.03 (51.5)	0.43 (11.0)	2.36 (60.0)	1.06 (27.0)	1.65 (42.0)	10





## Type SSG (conduit clamp)

RoHS  
compliant



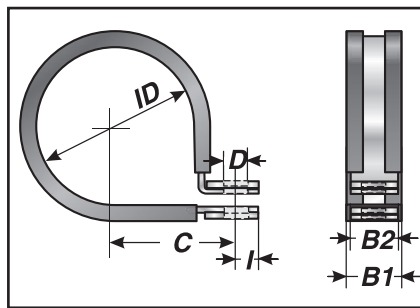
Galvanized sheet steel  
EPDM

Metal conduit clamp with halogen-free elastomer coating.

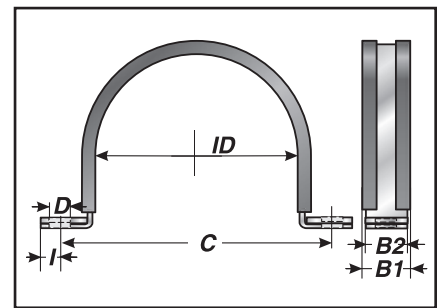
- Quick and easy assembly
- For all cable protection conduits



SSG



Up to SSG 48



From SSG 70

Type	Order no.	Suitable for Murrflex EW	B 1 inch (mm)	B 2 inch (mm)	C inch (mm)	D inch (mm)	I inch (mm)	ID inch (mm)	Pack qty.
SSG 06	83723210	06/07	0.59 (15.0)	0.47 (12.0)	0.51 (13.0)	0.21 (5.30)	0.20 (5.0)	0.39 (10.0)	25
SSG 07	83723212	07	0.59 (15.0)	0.47 (12.0)	0.55 (14.0)	0.21 (5.30)	0.20 (5.0)	0.47 (12.0)	25
SSG 09	83723214	09	0.59 (15.0)	0.47 (12.0)	0.57 (14.5)	0.21 (5.30)	0.20 (5.0)	0.51 (13.0)	25
SSG 11	83723216	11	0.59 (15.0)	0.47 (12.0)	0.61 (15.5)	0.21 (5.30)	0.20 (5.0)	0.59 (15.0)	25
SSG 16	83723218	16	0.59 (15.0)	0.47 (12.0)	0.75 (19.0)	0.21 (5.30)	0.20 (5.0)	0.87 (22.0)	25
SSG 21	83723222	21	0.73 (18.5)	0.59 (15.0)	0.87 (22.0)	0.25 (6.40)	0.24 (6.0)	1.10 (28.0)	25
SSG 29	83723224	29	0.73 (18.5)	0.59 (15.0)	1.11 (28.2)	0.25 (6.40)	0.24 (6.0)	1.34 (34.0)	25
SSG 36	83723226	29/36	0.98 (25.0)	0.79 (20.0)	1.23 (31.2)	0.33 (8.40)	0.33 (8.5)	1.57 (40.0)	10
SSG 48	83723228	48	0.73 (18.5)	0.59 (15.0)	0.25 (6.40)	0.24 (6.00)	0.33 (8.5)	2.13 (54.0)	10
SSG 70	83723230	70	0.98 (25.0)	0.79 (20.0)	4.25 (108.0)	0.33 (8.40)	0.33 (8.5)	3.11 (79.0)	10
SSG 95	83723232	95	0.98 (25.0)	0.79 (20.0)	5.28 (134.0)	0.33 (8.40)	0.33 (8.5)	4.13 (105.0)	10



## Spiral tape, type SB/SBF



-76 to 185 °F



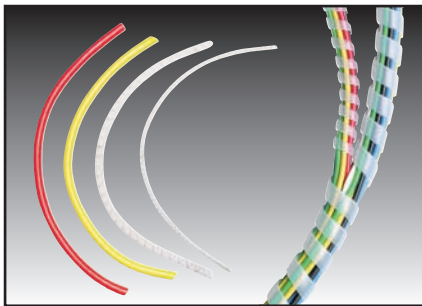
Mod. polyethylene



V0 only type SBF

Spiral tapes are used to bundle cable harnesses efficiently and simply. The spiral tapes also protect the insulation of the wires. Branches of single wires or looms of cables may be made at any place. Bundling in the range from 0.08–3.94 inches (2–100 mm) is possible with just three sizes.

The SBF consists of flame-retardant material.



SB / SBF

Type	Order no.	Color	Bundle range inch (mm)	inside inch (mm)	external inch (mm)	Weight lbs / 100 ft	Pack yards
SB 12	87621010	natural color	0.08–0.47 (2–12)	0.06 (1.50)	0.12 (3.00)	0.34	50
SB 50	87621012	natural color	0.20–1.97 (5–50)	0.16 (4.00)	0.24 (6.00)	1.01	100
SB 100	87621014	natural color	0.470–3.94 (12–100)	0.35 (9.00)	0.47 (12.00)	2.69	50
SB 100	87621212	yellow	0.470–3.94 (12–100)	0.35 (9.00)	0.47 (12.00)	2.69	50
SB 50	87621210	yellow	0.20–1.97 (5–50)	0.16 (4.00)	0.24 (6.00)	1.01	100
SB 50	87621250	orange	0.20–1.97 (5–50)	0.16 (4.00)	0.24 (6.00)	1.01	100
SB 100	87621252	orange	0.470–3.94 (12–100)	0.35 (9.00)	0.47 (12.00)	2.69	50
SBF 12 *	87621050	white	0.08–0.47 (2–12)	0.06 (1.50)	0.12 (3.00)	0.34	50
SBF 50 *	87621052	white	0.20–1.97 (5–50)	0.16 (4.00)	0.24 (6.00)	1.01	100
SBF 100 *	87621054	white	0.470–3.94 (12–100)	0.35 (9.00)	0.47 (12.00)	2.69	50

\* not halogen-free

## Type BN (fixing rivets)

RoHS  
compliant

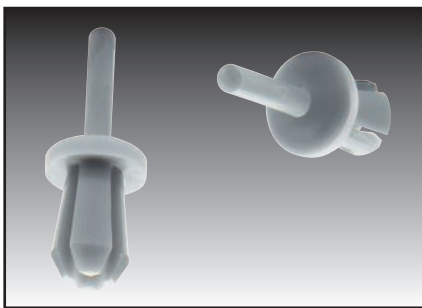


-40 to 176 °F

Plastic expansion rivets for the quick installation of components, e.g. cable ducts.



Hostalene



BN



BNW

Type	Order no.	Color	Holes inches (mm)	Shaft length inch (mm)	Fixing thickness min. inch (mm)	Fixing thickness max. inch (mm)	Pack qty.
BN 1	87621410	grey	0.12 (3.00)	0.35 (9.00)	0.12 (3.00)	0.30 (7.50)	500
BN 2	87621412	grey	0.18 (4.50)	0.39 (10.00)	0.12 (3.00)	0.31 (8.00)	500
BN 3	87621414	grey	0.26 (6.50)	0.59 (15.00)	0.18 (4.50)	0.39 (10.00)	1000

Recommended riveting tool: BNW, see "Tools"



## Type KB/KBM (cable ties)



natural colors: -13 to 185 °F  
black: -40 to 221 °C



KB: Polyamide 6.6  
KBM: Stainless steel 1.4301



KB black: V0  
KKB: V0



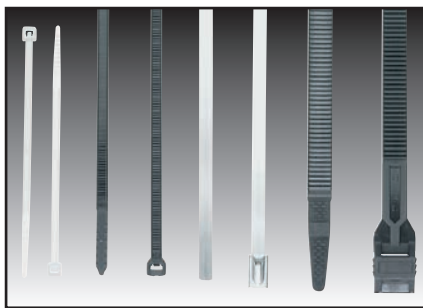
Cable ties in black  
are UV stabilized

Cable ties are a reliable method for the economic bundling and fastening of cables, cable harnesses, tubes, conduits and other components.

The black cable ties are suitable for outdoor applications.

The cable tie KKB 28 is equipped with a special locking mechanism and is especially suitable for heavy-duty applications.

The KBM metal cable tie is ideally used for EMC solutions. It creates greater contact surface area for discharging sheath currents.



KB / KBM

Type	Order no.	Color	Length inch (mm)	Width inch (mm)	Bundle range approx. inches (mm)	Tensile strength max. lb <sub>f</sub>	Pack qty.
KB 15	87661251	black	2.95 (75.0)	0.09 (2.20)	0.59 (15.0)	13.5	1000
KB 20	87661252	black	3.86 (98.0)	0.10 (2.50)	0.79 (20.0)	13.5	1000
KB 22	87661254	black	5.12 (130.0)	0.11 (2.90)	0.87 (22.0)	18.0	1000
KB 25	87661256	black	5.51 (140.0)	0.14 (3.60)	0.98 (25.0)	29.3	1000
KB 30	87661260	black	6.30 (160.0)	0.18 (4.50)	1.18 (30.0)	40.5	1000
KB 45	87661262	black	7.01 (178.0)	0.19 (4.80)	1.77 (45.0)	49.5	1000
KB 50	87661264	black	7.87 (200.0)	0.11 (2.90)	1.97 (50.0)	18.0	1000
KB 55	87661266	black	7.87 (200.0)	0.19 (4.80)	1.97 (50.0)	49.5	1000
KB 75	87661268	black	11.42 (290.0)	0.19 (4.80)	2.95 (75.0)	49.5	100
KB 100	87661270	black	14.17 (360.0)	0.19 (4.80)	3.94 (100.0)	49.5	100
KB 110	87661272	black	14.57 (370.0)	0.31 (7.80)	4.13 (105.0)	121.5	100
KB 15	87661210	natural colour	2.95 (75.0)	0.09 (2.20)	0.59 (15.0)	13.5	1000
KB 20	87661214	natural colour	3.86 (98.0)	0.10 (2.50)	0.79 (20.0)	13.5	1000
KB 22	87661218	natural colour	5.12 (130.0)	0.11 (2.90)	0.87 (22.0)	18.0	1000
KB 25	87661222	natural colour	5.51 (140.0)	0.14 (3.60)	0.98 (25.0)	29.3	1000
KB 30	87661226	natural colour	6.3 (160.0)	0.18 (4.50)	1.18 (30.0)	40.5	1000
KB 45	87661230	natural colour	7.01 (178.0)	0.19 (4.80)	1.77 (45.0)	49.5	1000
KB 50	87661234	natural colour	7.87 (200.0)	0.11 (2.90)	1.97 (50.0)	18.0	1000
KB 55	87661238	natural colour	7.87 (200.0)	0.19 (4.80)	1.97 (50.0)	49.5	1000
KB 75	87661242	natural colour	11.42 (290.0)	0.19 (4.80)	2.95 (75.0)	49.5	100
KB 100	87661246	natural colour	14.17 (360.0)	0.19 (4.80)	3.94 (100.0)	49.5	100
KB 110	87661248	natural colour	14.57 (370.0)	0.31 (7.80)	4.13 (105.0)	121.5	100

Recommended assembly tool for cable ties up to 0.23 mm wide: KBW 1K

Recommended assembly tool for cable ties up to 0.31 mm wide: KKBW







## Type BF (cable tie)



-13 to 185 °F



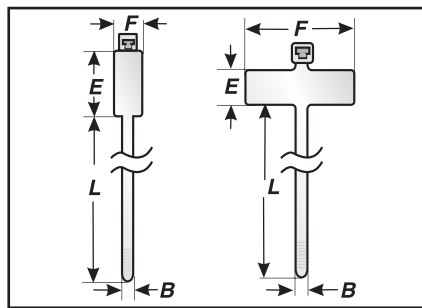
Mod. polyamide 6.6

Cable tie with title block.

For use with ink pens or permanent waterproof markers.

BF20 (Fig., right) title block lengthways along cable.

BF45 (Fig., left) title block across cable.



BF

Type	Order no. natural color	Color	L approx. inch (mm)	B approx. inch (mm)	E approx. inch (mm)	F approx. inch (mm)	Bundle range approx. inches	Tensility min. lb <sub>f</sub>	Pack qty.
BF 20	87681010	white	3.39 (86.00)	0.10 (2.50)	0.31 (8.00)	0.98 (25.00)	19.0	18.0	100
BF 45	87681012	transparent	6.18 (157.00)	0.19 (4.70)	1.10 (28.00)	0.51 (13.00)	45.0	49.9	100

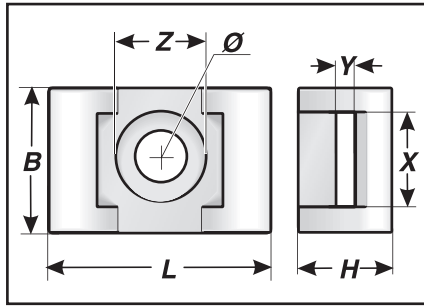
The dimensions may deviate for technical or production reasons.

### Type SH (screwed holders)

 -40 to 185 °F

 Mod. polyamide

The SH screw-down holder is used to fix individual cables cost-effectively. It can be screwed or riveted to any surface.



SH

Type	Order no.	Color	L inches (mm)	B inches (mm)	H inches (mm)	X inches (mm)	Y inches (mm)	Z inches (mm)	Ø inches (mm)	Pack qty.
SH 1	87681210	white	0.59 (15.00)	0.39 (10.00)	0.28 (7.00)	0.20 (5.00)	0.08 (2.00)	0.28 (7.00)	0.15 (3.70)	100
SH 2	87681212	white	0.89 (22.50)	0.59 (15.00)	0.43 (11.00)	0.36 (9.20)	0.11 (2.80)	0.39 (10.00)	0.20 (5.00)	100

## Type KH (screwed and adhesive holders)

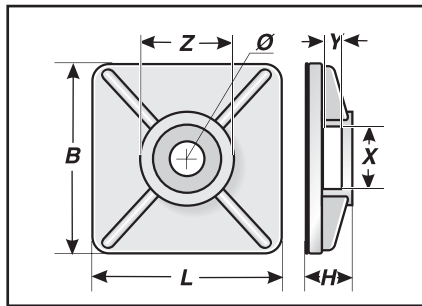
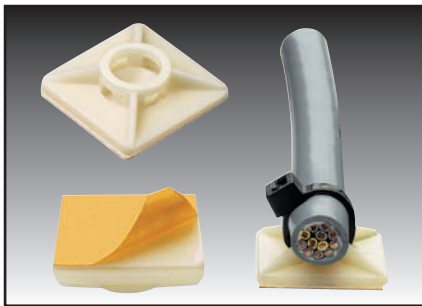


-40 to 185 °F



Mod. polyamide

Adhesive holder, plastic. The retention force can be increased by additional fastening with a screw. If pressure sensitive adhesives are used, the surface must be smooth and free of dust and grease. Contaminated surfaces must be cleaned with proper cleaning agents.



KH

Type	Order no.	Color	L inches (mm)	B inches (mm)	H inches (mm)	X inches (mm)	Y inches (mm)	Z inches (mm)	Ø inches (mm)	Pack qty.
KH 1	87681220	white	0.75 (19.00)	0.75 (19.00)	0.24 (6.00)	0.16 (4.00)	0.07 (1.80)	0.30 (7.70)	0.17 (4.30)	100
KH 2	87681222	white	1.06 (27.00)	1.06 (27.00)	0.30 (7.50)	0.24 (6.00)	0.09 (2.30)	0.38 (9.70)	0.19 (4.70)	100



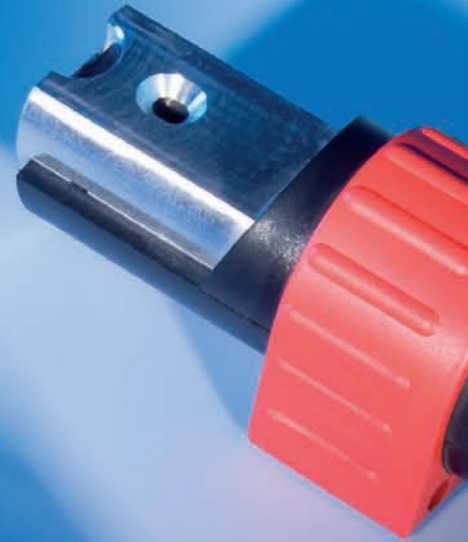


# Tools





## Tools product range



**Type KS**  
(Cable shears)

Sturdy version of cable shears. Suitable for removing cable sheathing and braided shields.

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**Type KM**  
(Cable stripping knife)

Special cable stripping knife for stripping of wiring.

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**Type UAZ**  
(Stripping tongs)

Stripping tongs for single wires up to a diameter of 2.5 mm<sup>2</sup> (AWG 13). A slider is used to adjust the stripping length.

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**Type KBW/KKBW**  
(Cable tie tools for plastic cable ties)

Tools for mounting of plastic cable ties. With manual cutting mechanism or automatic cutting mechanism.

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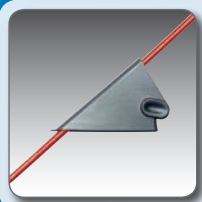


**Type KBW/M**  
(Cable tie tool for metal ties)

Cable tie tools intended for metal cable ties of type KBM, robust tool made of metal with a manual cutting mechanism.

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**Type KE**  
(Cable insertion tool)

Easy insertion of cables into split and slit cable protection conduits.

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**Type BNW**  
(Riveting tool)

Only this tool brings out the full economical effect of the BN fixing rivet. The tools are matched to the size of the rivets.

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**Type CrimmBoss**  
(Crimping tool for cable end sleeves)

Electromagnetic tool for crimping insulated cable end sleeves complete with accessories.

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## Type BNW (riveting tool)

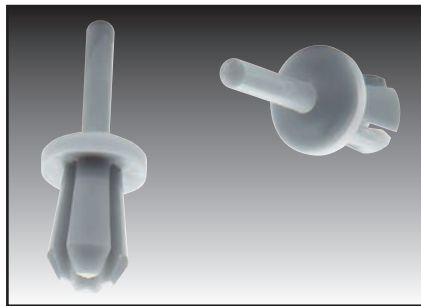


Steel

Only this tool brings out the full economical effect of the BN fixing rivet.  
 The tools are matched to the size of the rivets.  
 For type BN fixing rivets, see "Accessories" chapter.



BNW



BN

Type	Order no.	for	Length inch (mm)	Pack qty.
BNW 1	87641010	BN 1	5.12 (130.0)	1
BNW 2	87641012	BN 2	5.12 (130.0)	1
BNW 3	87641014	BN 3	5.12 (130.0)	1



## Type KS (Cable shears)



Steel

Sturdy version of cable shears. Suitable for removing cable sheathing and braided shields. EW-PAP cable protection conduit with metal braiding can be processed with these shears.



KS

Type	Order no.		Pack qty.
KS 1	87661016	Approx. length 6.89 inches	1





## Type UAZ (Stripping tongs)

Stripping tongs for single wires up to a diameter of 0.004 inches<sup>2</sup> (2.5 mm<sup>2</sup>).  
 A slider is used to adjust the stripping length.  
 The stripping tongs possess an integrated cutting mechanism.



UAZ

Type	Order no.		Pack qty.
UAZ	87661020	Approx. length 7.48 inches	1
For wire cross sections from AWG 21-19 (0.5–2.5 mm <sup>2</sup> )			
Adjustable stripping length			
Can be adjusted to the thickness of the insulation			
With integrated wire cutter for conductors up to 0.004 inches <sup>2</sup> (2.5 mm <sup>2</sup> )			

## Type CrimmBoss (Crimping Tool for Cable End Sleeves)



Electromagnetic tool for crimping insulated cable end sleeves complete with accessories.

- The CrimmBoss CB2 crimping process is only activated by mechanical contactors when the cable end sleeves have been completely and correctly inserted
- Magnetic holder MHC for simple assembly of the CrimmBoss
- Contact tongue, small, for diameter range AWG 26-18 (0.14–1.0 mm<sup>2</sup>)
- Contact tongue, large, for diameter range AWG 21-19 (0.5–2.5 mm<sup>2</sup>)
- Contact tongues included in delivery



CrimmBoss CB2



Magnetic holder MHC



Contact tongue

Type	Order no.	Pack qty.
CrimmBoss CB2	87661022	1
Supply voltage 230V / 50Hz		
Long mains cable: 9.2 ft. (2.8 m)		
CrimmBoss CB2 110V	87661023	1
Supply voltage 110V / 50Hz		
Long mains cable: 9.2 ft. (2.8 m)		
Accessories		
Magnetic holder MHC	87661024	1
Replacement part		
Contact tongue, large	87980007	1
Diameter range: AWG 21-19 (0.5–2.5 mm <sup>2</sup> )		
Contact tongue, small	87980006	1
Diameter range: AWG 26-18 (0.14–1.0 mm <sup>2</sup> )		

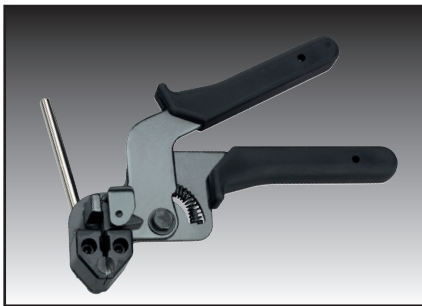




## Type KBW/M (Cable tie tool for metal ties)

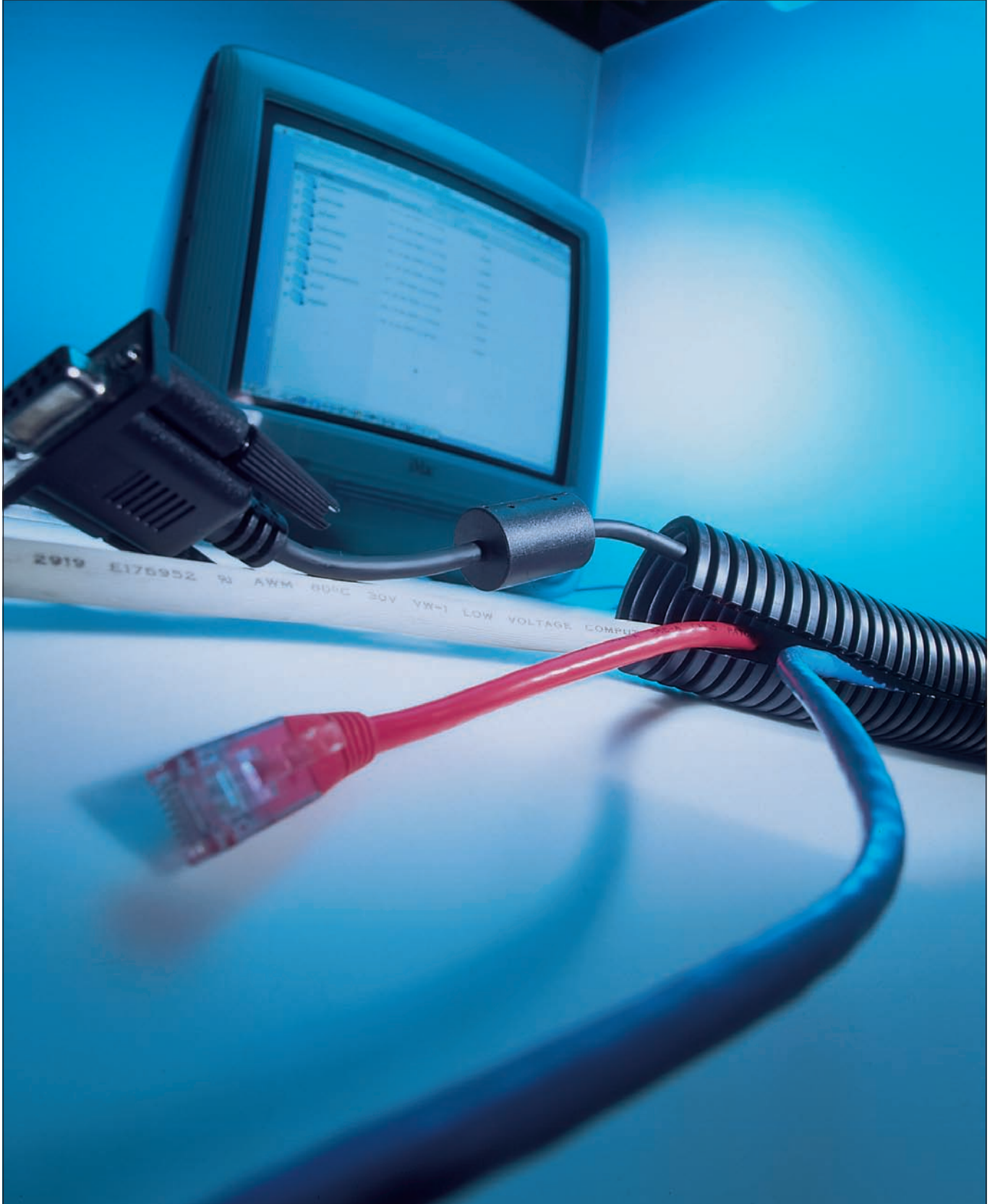
 Steel

Cable tie tools intended for metal cable ties of type KBM, with manual cutting mechanism. Robust metal tool.

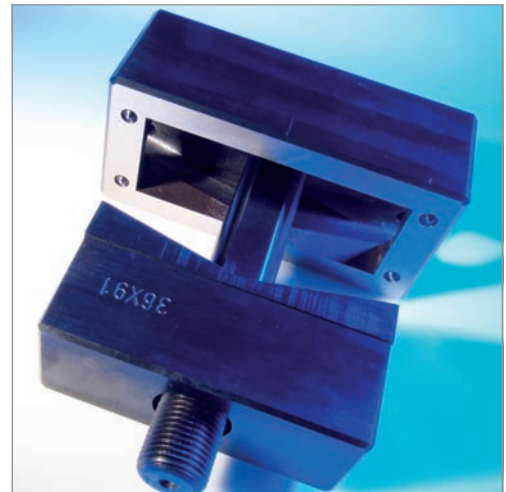
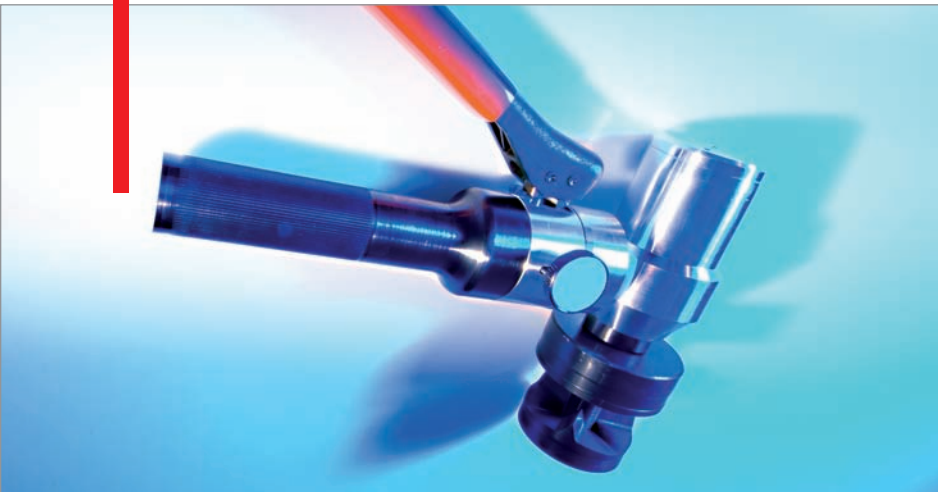


KBW/M

Type	Order no.		Pack qty.
KBW/M Cable tie tool suitable for cable tie KBM. With manual cutting mechanism.	87669090	Approx. length 7.87 inches	1



## Punching tools



## Advantages



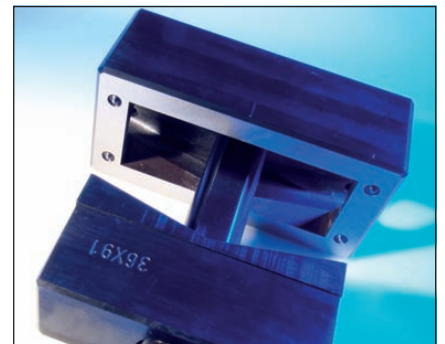
## Punching tools

For years, Murrplastik Systemtechnik has been developing easy-to-assemble, maintenance-free connection systems for the routing of lines and cables.

Thanks to our practical punching tools, you now have the option of quickly and easily implementing the appropriate control cabinet cut-outs for our conduit and cable fittings, cable entry panels KDP and cable entry systems KDL and KDL/E.

You can choose between three different hydraulic punches and a wide range of punching tools.

Punching tools are available for sheet steel and for stainless steel applications.



- ✓ Compact construction
- ✓ For workshop and assembly
- ✓ Long service life
- ✓ Easy handling
- ✓ Compatible with many other systems

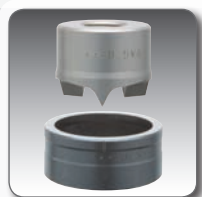
## Punching tool product range



### **Type SW-WR / SW-WQ** (Punching tools rectangular / square)

Several punching tools for the creation of square or rectangular cut-outs.

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### **Type SW-WE** (Punching tools round)

Round hole punch, individual tools for steel or stainless steel plates.

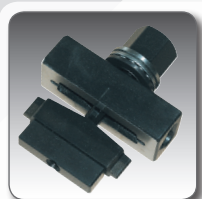
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### **Type SW-WS** (Set of punching tools)

Round hole perforator tool sets from M16 to M40 and/or to M63.

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### **Type SW-WD** (Punching tools SUB-MIN-D)

Punching tool for creation of SUB-MIN-D plug cut-outs (9 to 50 poles).

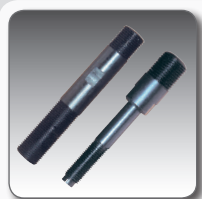
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### **Type SW-ASN** (Special nibbling tool)

Universal punching tool for creation of various cut-out sizes and shapes.

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### **Spare part for punching tools**

Replacement parts for the entire punching tool system.

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### **Type SW-HG and SW-HW** (Hydraulic hand punch)

Practical manual punch without additional conduit and cylinder, ideal for workshop and assembly.

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### **Type SW-HF** (Hydraulic punch with foot pump)

Practical hydraulic punch with foot pump; ideal for use in the workshop. Both hands remain free for exact positioning and punching.

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## Type SW-HG und SW-HW (hydraulic manual punch)

Practical manual punch without additional conduit and cylinder, ideal for workshop and assembly.

- Hydraulic punch made of high-strength aluminum
- Overload protection provided by excess pressure valve
- Ergonomic handle, springs back automatically

SW-HW version:

- The angle head can be pivoted 360° for better handling.



SW-HG



SW-HW

Type	Order no.	Weight lbs (kg)	Punching force kN	Operating pressure psi (bar)	Pack qty.
Compact hydraulic manual punch, straight					
SW-HG hydraulic manual punch	87801010	3.5 (1.6)	75	9,400 (650)	1
Compact hydraulic manual punch with pivoting head					
SW-HW hydraulic manual angle punch	87801012	4.1 (1.9)	75	9,400 (650)	1
consisting of:					
1 pce compact hydraulic manual punch					
1 pce tension bolt version A					
1 pce tension bolt version C					
1 pce spacer bushing set (3-pce.)					
1 pce tap drill 0.43 inches (11 mm)					
1 pce transport case					
Punching performance, round hole perforator:					
0.08 inch (2.0 mm) sheet steel (St37) max. Ø 3.3 inches (84 mm)					
0.12 inch (3.0 mm) sheet steel (St37) max. Ø 2.5 inches (64 mm)					
0.08 inch (2.0 mm) stainless steel (V2A) Ø 3.3 inches (84 mm)					
Punching performance, square hole perforator:					
0.08 inch (2.0 mm) sheet steel (St37) max. 1.4 x 4.4 inches (36 x 112 mm)					
Spare part see chapter "Spare part for punching tool"					

## Type SW-HF (Hydraulic punch with foot pump)

Practical hydraulic punch with foot pump; ideal for use in the workshop.

The foot pump does not require use of the hands, leaving both hands free for exact positioning and punching at the control cabinet.

The support frame of the foot pump is splayed. This provides for stable, anti-tip working.

- Overload protection via installed pump safety valve
- Better punching performance then with a manual punch
- For larger punching tools



SW-HF

Type	Order no.	Weight lbs (kg)	Punching force kN	Operating pressure psi (bar)	Pack qty.
Hydraulic punch with foot pump					
SW-HF Hydraulic punch with foot pump	87801014	30.7 lbs (13.9)	100	10,150 (700)	1
consisting of:					
1 pce hydraulic cylinder with quick coupling					
1 pce Hydraulic conduit 9.19 inches (2.8 m)					
1 pce tension bolt version A					
1 pce tension bolt version C					
1 pce spacer bushing set (5-pce.)					
1 pce tap drill 0.43 inches (11 mm)					
1 pce sheet steel transport case					
Punching performance, round hole perforator:					
0.08 inch (2.0 mm) sheet steel (St37) max. Ø 5.9 inches (150 mm)					
0.12 inch (3.0 mm) sheet steel (St37) max. Ø 3.9 inches (100 mm)					
0.12 inch (3.0 mm) sheet steel (V2A) max. Ø 3.9 inches (100 mm)					
Punching performance, square hole perforator:					
0.08 inch (2.0 mm) sheet steel (St37) max. 5.4 x 5.4 inches (138 x 138 mm)					
0.08 inch (2.0 mm) sheet steel (V2A) max. 3.6 x 3.6 inches (92 x 92 mm)					
Spare part see chapter "Spare part for punching tool".					

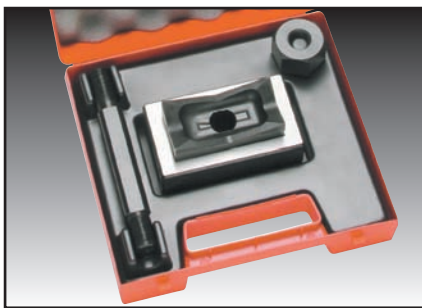


## Type SW-WR / SW-WQ (Punching tool rectangular / square)

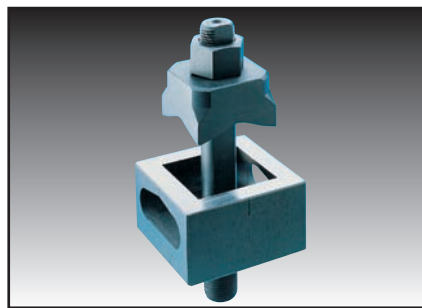


Steel

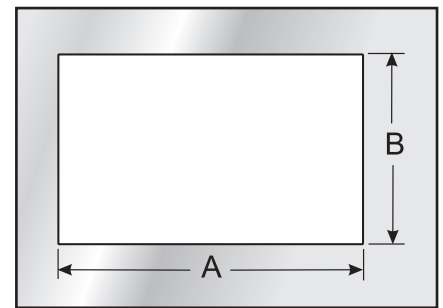
Several punching tools for the creation of square or rectangular cut-outs. These hole punches are delivered a plastic transport case. Also ideal for mounting use. Corresponding tension bolt is included in the delivery. During the punching process, the attachment points for the screw holes are centred.



SW-WR...



SW-WQ...



Type	Order- No.	Press cut A inch	Press cut B inch	Suitable for	Suitable tensioning screw version	Cutting for	Suitable for hydraulic punch SW-HG(HW)/SW-HF	Pack qty.
Hole perforator (rectangular) for sheet steel with centring tips								
SW-WR 0.67x0.75	87801330	0.67	0.75	Sheet steel ≤0.08 inches	G		●/●	1
SW-WR 0.86x1.02	87801332	0.86	1.02	Sheet steel ≤0.08 inches	K		●/●	1
SW-WR 0.87x1.18	87801334	0.87	1.18	Sheet steel ≤0.08 inches	K		●/●	1
SW-WR 0.87x1.65	87801336	0.87	1.65	Sheet steel ≤0.08 inches	K		●/●	1
SW-WR 0.98x1.18	87801340	0.98	1.18	Sheet steel ≤0.08 inches	K		●/●	1
SW-WR 1.42x2.05	87801350	1.42	2.05	Sheet steel ≤0.08 inches	D *	Ind. Connectors 6 pole	●/●	1
SW-WR 1.42x2.56	87801352	1.42	2.56	Sheet steel ≤0.08 inches	D *	Ind. Connectors 10 pole	●/●	1
SW-WR 1.77x3.62	87801342	1.77	3.62	Sheet steel ≤0.08 inches	D *		●/●	1
SW-WR 1.81x3.39	87801354	1.81	3.39	Sheet steel ≤0.08 inches	D *		●/●	1
SW-WR 1.81x3.62	87801344	1.81	3.62	Sheet steel ≤0.08 inches	D *		●/●	1
SW-WR 1.81x4.41	87801356	1.81	4.41	Sheet steel ≤0.08 inches	E		-/●	1
SW-WR 2.68x5.43	87801346	2.68	5.43	Sheet steel ≤0.12 inches	E		-/●	1
SW-WR 3.39x1.42	87801292	3.39	1.42	Sheet steel ≤0.08 inches	D *	KDL 16	●/●	1
						KDL/E 16 (screwed)		
						KDL/S 16		
						KD/AG16		
SW-WR 91.0x1.42	87801294	3.58	1.42	Sheet steel ≤0.08 inches	D *	KDL/E 16 (snap in or screwed)	●/●	1
SW-WR 4.41x1.42	87801290	4.41	1.42	Sheet steel ≤0.08 inches	D *	KDP 24	●/●	1
						KDL 24		
						KDL/E 24		
						KD/AG24		



## Type SW-WR / SW-WQ (Punching tool rectangular / square)

Type	Order no.	Press cut A inch	Press cut B inch	Suitable for	Suitable tensioning screw version	Cutting for	Suitable for hydraulic punch SW-HG(HW)/SW-HF	Pack qty.
Hole perforator (rectangular) for sheet steel with centring tips								
SW-WQ 12.7x12.7	87801300	0.50	0.50	Sheet steel ≤0.07 inches	H		●/●	1
SW-WQ 15.8x15.8	87801302	0.62	0.62	Sheet steel ≤0.07 inches	H		●/●	1
SW-WQ 19.0x19.0	87801304	0.75	0.75	Sheet steel ≤0.08 inches	G		●/●	1
SW-WQ 22.2x22.2	87801306	0.87	0.87	Sheet steel ≤0.08 inches	G		●/●	1
SW-WQ 24.0x24.0	87801308	0.94	0.94	Sheet steel ≤0.08 inches	G		●/●	1
SW-WQ 25.4x25.4	87801310	1.00	1.00	Sheet steel ≤0.08 inches	K		●/●	1
SW-WQ 45.8x15.8	87801312	1.79	1.79	Sheet steel ≤0.12 inches	F		●/●	1
SW-WQ 46.0x46.0	87801314	1.81	1.81	Sheet steel ≤0.12 inches	F		●/●	1
SW-WQ 50.8x50.8	87801316	2.00	2.00	Sheet steel ≤0.12 inches	D *		●/●	1
SW-WQ 68.0x68.0	87801318	2.68	2.68	Sheet steel ≤0.12 inches	D *		●/●	1
SW-WQ 92.0x92.0	87801320	3.62	3.62	Sheet steel ≤0.12 inches	E		-/●	1
SW-WQ 125.0x125.0	87801322	4.92	4.92	Sheet steel ≤0.12 inches	E		-/●	1
SW-WQ 138.0x138.0	87801324	5.43	5.43	Sheet steel ≤0.12 inches	E		-/●	1

\* Suitable tool for forming the cut-out for the tension screw:

Round hole perforator SW-WE-NS Pg 16

Spare part see chapter "Spare part for punching tool"

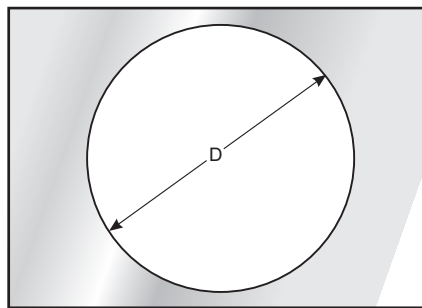
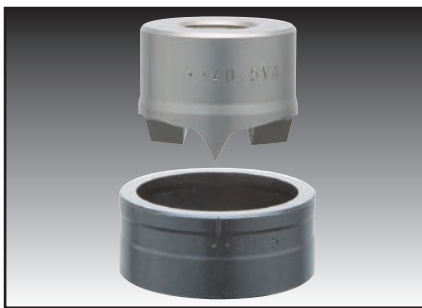


## Type SW-WE (Punching tool round)



Steel

Round hole punch, individual tools for steel or stainless steel plates. Versions for punching holes in metric or Pg threaded connections.  
Metric sizes from M16 to M63.  
Pg sizes from Pg 9 to Pg 48.



SW-WE...

Type	Order no.	Dimension	Press cut D inch (mm)	Suitable for	Suitable tensioning screw version	Cutting for	Pack qty.
Hole perforator (round) for steel sheets							
SW-WE-NS M16	87801210	M16	0.64 (16.20)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS M20	87801212	M20	0.80 (20.40)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS M25	87801214	M25	1.00 (25.40)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS M32	87801216	M32	1.28 (32.50)	Sheet steel ≤0.12 inches (3 mm)	C		1
SW-WE-NS M40	87801218	M40	1.59 (40.50)	Sheet steel ≤0.12 inches (3 mm)	C		1
SW-WE-NS M50	87801220	M50	1.99 (50.50)	Sheet steel ≤0.12 inches (3 mm)	C	KDP/R M50/x	1
SW-WE-NS M63	87801222	M63	2.50 (63.50)	Sheet steel ≤0.12 inches (3 mm)	C	KDP/R M63/x	1
SW-WE-NS Pg. 9	87801238	Pg 9	0.60 (15.20)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS Pg. 11	87801240	Pg 11	0.73 (18.60)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS Pg. 13	87801242	Pg 13	0.80 (20.40)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS Pg. 16	87801244	Pg 16	0.89 (22.50)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS Pg. 21	87801246	Pg 21	1.11 (28.30)	Sheet steel ≤0.08 inches (2 mm)	A		1
SW-WE-NS Pg. 29	87801248	Pg 29	1.46 (37.00)	Sheet steel ≤0.12 inches (3 mm)	C		1
SW-WE-NS Pg. 36	87801250	Pg 36	1.85 (47.00)	Sheet steel ≤0.12 inches (3 mm)	C		1
SW-WE-NS Pg. 42	87801252	Pg 42	2.13 (54.00)	Sheet steel ≤0.12 inches (3 mm)	C		1
SW-WE-NS Pg. 48	87801254	Pg 48	2.36 (60.00)	Sheet steel ≤0.12 inches (3 mm)	C		1





## Type SW-WS (Punching tool set)



Steel

Round hole perforator tool sets from M16 to M40 and/or to M63. For steel or stainless steel plates. Punching tools are delivered in handy plastic transport case. Also ideal for mounting use.



SW-WS-... M16-M40



SW-WS-... M16-M63

Type	Order no.	Suitable tensioning screw version	Suitable for	Pack qty.
Sheet metal perforator set for sheet steel				
SW-WS-NS M16-M40	87801280	A & C	Sheet steel	1
consisting of:				
1 each M16; M20; M25; M32; M40; transport case				
Sheet metal perforator set for sheet steel				
SW-WS-NS M16-M63	87801282	A & C	Sheet steel	1
consisting of:				
1 each M16; M20; M25; M32; M40; M50; M63; transport case				
Sheet metal perforator set for stainless sheet steel				
SW-WS-VA M16-M40	87801284	B & C	Sheet steel and stainless sheet steel	1
consisting of:				
1 each M16; M20; M25; M32; M40; transport case				
Sheet metal perforator set for stainless sheet steel				
SW-WS-VA M16-M63	87801286	B & C	Sheet steel and stainless sheet steel	1
consisting of:				
1 each M16; M20; M25; M32; M40; M50; M63; transport case				
Spare part see chapter "Spare part for punching tool"				



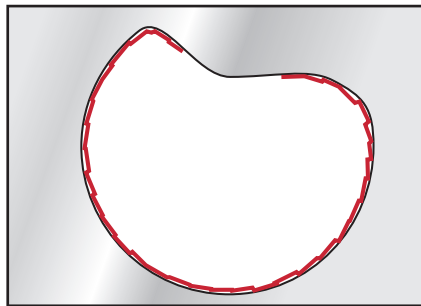


## Type SW-ASN (Special nibbling tool)



Steel

Universal punching tool for creation of various cut-out sizes and shapes. Tools with hole punch width 0.6 inches and 0.8 inches.



SW-ASN...

Type	Order no.	Hole punch width	Hole punch length	Hole diameter	Suitable for	Pack qty.
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Special ASN nibbling tool

SW-ASN 15	87801370	0.59 inches (15.0 mm)	0.26 inches (6.5 mm)	0.85 inches (21.5 mm)	Sheet steel $\leq 0.08$ inches (2 mm)	1
SW-ASN 20	87801372	0.79 inches (20.0 mm)	0.35 inches (9.0 mm)	1.12 inches (28.5 mm)	Sheet steel $\leq 0.08$ inches (2 mm)	1

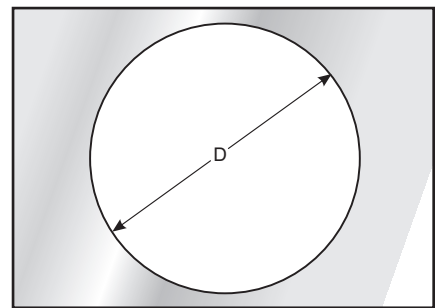
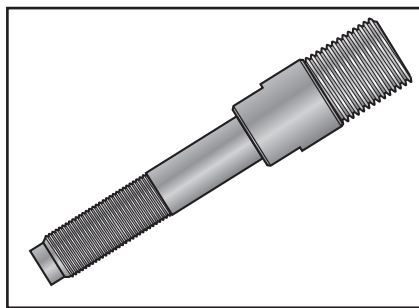
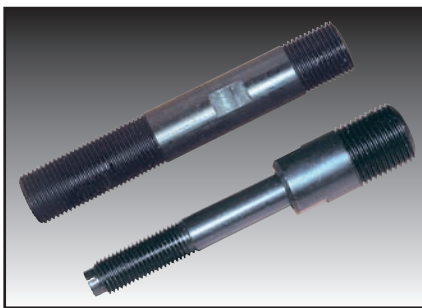
Spare part see chapter "Spare part for punching tool".

## Spare part for punching tools



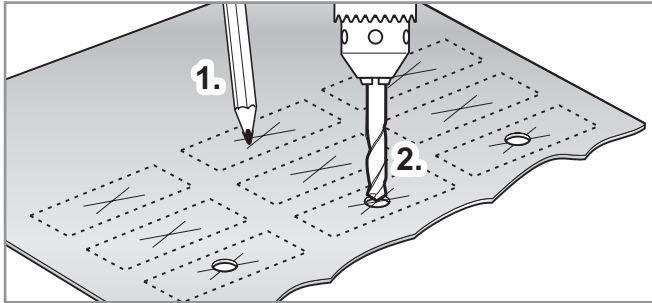
Steel

Replacement parts for the entire punching tool system.



Type	Order no.	Tensioning screw version	Length inch (mm)	Pilot hole D inch (mm)	Pack qty.
<b>Tensioning screw</b>					
SW-WE-ZS Type A	87801410	A	3.94 (100.0)	0.39 (10.0)	1
SW-WE-ZS Type B	87801412	B	3.94 (100.0)	0.45 (11.50)	1
SW-WE-ZS Type C	87801414	C	4.72 (120.0)	0.79 (20.0)	1
SW-WE-ZS Type D	87801416	D	6.50 (165.0)	0.94 (24.0)	1
SW-WE-ZS Type E	87801434	E	6.81 (173.0)	1.18 (30.0)	1
SW-WE-ZS Type F	87801436	F	5.55 (141.0)	0.79 (20.0)	1
SW-WE-ZS Type G	87801438	G	4.17 (106.0)	0.55 (14.0)	1
SW-WE-ZS Type H	87801440	H	3.43 (87.0)	0.39 (10.0)	1
SW-WE-ZS Type K	87801442	K	4.17 (106.0)	0.67 (17.0)	1
SW-WE-ZS Type L	87801444	L	3.43 (87.0)	0.39 (10.0)	1
<b>spacer bushing set</b>					
SW-WS-DS 3-pce.	87801430				1
SW-WS-DS 5-pce.	87801432				1
<b>Predrill</b>					
SW-WE-VB 0.39 inches (10 mm)	87801420				1
SW-WE-VB 0.43 inches (11 mm)	87801422				1
SW-WE-VB 0.45 inches (11.5 mm)	87801424				1
<b>Replacement stamp for special nibbling tool</b>					
SW-ASN 15 stamp	87801374				1
SW-ASN 20 stamp	87801376				1

## Operating manual punching tool

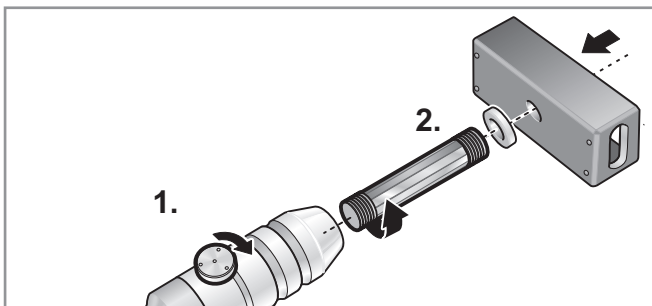


Establish and mark cut-outs.

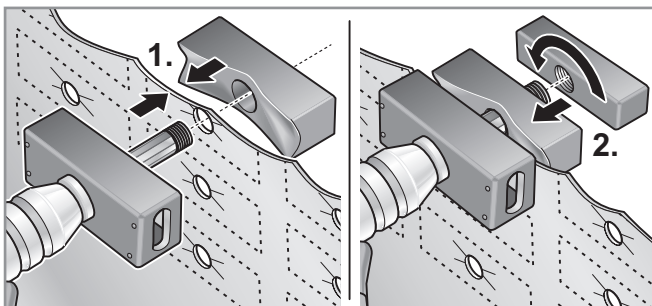
Caution:

Ensure sufficient distance between the press cuts!

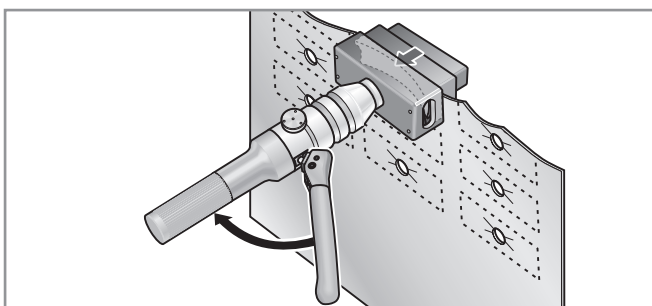
Mark drilling point for the pilot hole for the tension screw and punch out the pilot hole for the tension screw.



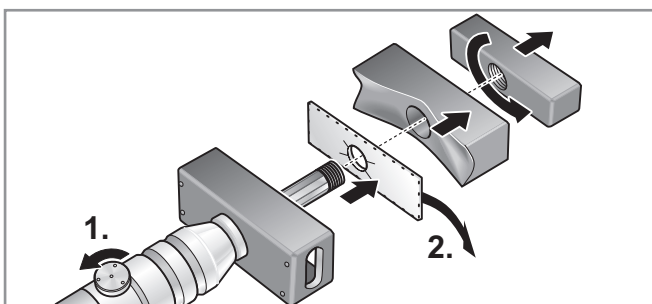
Screw in corresponding tension screw into the tool head and close the valve on the punching tool. Push on appropriate spacer and die.



Insert tension screw into pilot hole. Stick or screw stamp onto tension bolt. Secure with lock nut where needed. Align die and draw in lock nut by hand.



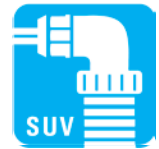
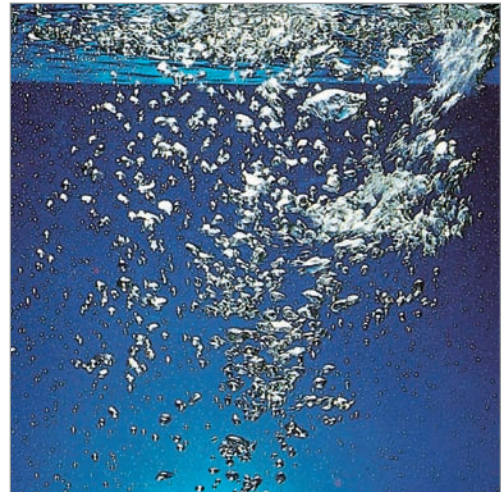
Activate hydraulic mechanism until the press cut is completed. Then actuate 3-4 further strokes. This ensures an easier removal of the plate from the die. Caution: If excessive force is required, inspect the hydraulic tool and punching tool! Observe the tool's operating instructions.



Remove hydraulic tool from the cut-out. Open valve and remove lock nut and stamp. Remove plate from the die.



# Appendix





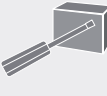














## Protection classes according to DIN EN 60529

An important element for housings is protection of integrated elements against drilling, foreign particles and water. The different protective abilities are classified into IP protection ratings (IP = International Protection). The framework conditions that a protection class must guarantee are laid out in DIN 40050 and IEC-EN 60529.

IP protection classes are indicated through a two digit code (IPXX). The first digit indicates protection against contact and foreign particles, the second the water protection factor. Class IP 65 is therefore completely protected against touching, is dust-proof (first digit = 6) and protected in all directions against water jets from a nozzle (second digit = 5).

First index no.	Touch-proof	Foreign particle protection	Second index no.	Brief description	Water protection
0	Unprotected		0	Unprotected	
1	Protected against solid foreign objects of 2 inches (50 mm) and larger	The object probe, a sphere of 2 inches (50 mm) in diameter, must not fully penetrate. 	1	Protected against vertically falling drops of water	Drops which fall vertically must not have any harmful effect. 
2	Protected against solid foreign objects of 0.49 inches (12.5 mm) and larger	The object probe, a sphere of 0.49 inches (12.5 mm) in diameter, must not fully penetrate. 	2	Protection against water falling at an incline (up to 15°)	Drops which fall vertically must not have any harmful effects if the housing is inclined at an angle of up to 15° of either side of the perpendicular. 
3	Protected against solid foreign objects of 0.1 inches (2.5 mm) and larger	The object probe, 0.1 inches (2.5 mm) in diameter, must not penetrate at all. 	3	Protection against spray falling at an incline (up to 60°)	Water which is sprayed at an angle of up to 60° of either side of the perpendicular must not have any harmful effects. 
4	Protected against solid foreign objects 0.04 inches (1.0 mm) in diameter and larger	The object probe, 0.04 inches (1.0 mm) in diameter, must not penetrate at all. 	4	Protection against general spray	Water which is splashed against the housing from all directions must not have any harmful effects. 
5	Dustproof	The penetration of dust is not fully prevented; however, it shall not penetrate to such an extent that satisfactory operation or safety are detracted. 	5	Protection against water jets (nozzles)	Water which is sprayed in a jet against the housing from any direction must not have any harmful effects. 
6	Dust-tight	No penetration of dust. 	6	Protected against strong water jets (overflow)	Water which is sprayed as a strong jet against the housing from any direction must not have any harmful effects. 
			7	Protected against the effect of temporary submersion in water	Water must not penetrate to an extent that will cause harmful effects if the housing is temporarily submerged in water under pressure and under time conditions. 
			8	Protected against the effect of temporary submersion in water	Water must not penetrate to such an extent that it will cause harmful effects if the housing is permanently submerged in water. 
			9 k	Protection against water during high-pressure or steam jet cleaning	IP x9K according to DIN 40050 Water jet at 0°, 30°, 60° and 90° Cycle: 30 seconds each Distance: 0.39–0.59 inches (10-15 cm) Water volume: 3.7–4.3 gallons/minute Water temperature: 176 °F +/- 41 °F Water pressure: 80 - 100 psi 

## Description of fire classifications according to UL 94

### Fire classification HB

The material burns slowly in the horizontal combustion test. The rate of combustion must not exceed 3 inches/min. for wall thicknesses of up to 0.12 inches (3 mm), and 1.5 inches/min. for wall thicknesses over 0.12 inches (3 mm). Any materials exceeding these combustion rate limits are not registered by UL.

### Fire classification V2

In the vertical combustion test, self-extinguishing must occur after an average of 25 seconds (individual values not to exceed 30 seconds). Any dripping material may ignite cotton wool located underneath. However, any afterglow must not exceed 60 seconds.

### Fire classification V1

In the vertical combustion test, self-extinguishing must also occur after an average of 25 seconds (individual values not to exceed 30 seconds). However, any material dropping off must not ignite cotton wool placed underneath. Any afterglow must not exceed 30 seconds.

### Fire classification V0

In the vertical combustion test, self-extinguishing must occur after an average of less than 5 seconds (individual values not to exceed 10 seconds). Any material dropping off must not ignite cotton wool placed underneath and any afterglow must not exceed 30 seconds.

## Description of fire classification according to DIN 5510

### Combustion class S4

**Test procedure:** as per DIN 54 837

#### Requirements:

- Length of the destroyed area:  $\leq 7.87$  inches (20 cm)
- No afterburning

Products may also be assigned to combustion class S4 if afterburning occurs within the burnt testing area and the average duration of afterburning does not exceed 10 seconds. If afterburning occurs in the undamaged area of the test piece, the product must not be assigned to combustion class S4.

**If the afterburning of a test object lasts longer 120 seconds, such products must not be assigned to combustion class S4 (note: according to DIN 54 837, a burning test piece must be extinguished immediately after an observation period of 120 seconds).**



## Thread dimensions

Metric threads (according to EN 60423)				
Size	$\emptyset d_1$	$\emptyset d_2$	p	$\emptyset d_3$
M 12x1.5	10.38	12	1.5	12.2
M 16x1.5	14.38	16	1.5	16.2
M 20x1.5	18.38	20	1.5	20.2
M 25x1.5	23.38	25	1.5	25.2
M 32x1.5	30.38	32	1.5	32.2
M 40x1.5	38.38	40	1.5	40.2
M 50x1.5	48.38	50	1.5	50.2
M 63x1.5	61.38	63	1.5	64.2

Pg threads (according to DIN 40430)				
Size	$\emptyset d_1$	$\emptyset d_2$	p	$\emptyset d_3$
Pg 7	11.28	12.5	1.27	12.7
Pg 9	13.86	15.2	1.41	15.4
Pg 11	17.26	18.6	1.41	18.8
Pg 13.5	19.06	20.4	1.41	20.6
Pg 16	21.16	22.5	1.41	22.7
Pg 21	26.78	28.3	1.588	28.5
Pg 29	35.48	37.0	1.588	37.2
Pg 36	45.48	47.0	1.588	47.2
Pg 42	52.48	54.0	1.588	54.2
Pg 48	57.78	59.3	1.558	59.5

NPT threads			
Size	$\emptyset d_2$	p	$\emptyset d_3$
3/8SDSq	16.7	1.14	17.0+0.2
1/2SDSq	21.0	1.18	21.3+0.2
3/4SDSq	26.4	1.18	26.7+0.2
1SDSq	33.3	2.21	33,6+0.2
1 1/4SDSq	41.9	2.21	42.2+0.2
1 1/2SDSq	47.8	2.21	48.1+0.3
2SDSq	59.6	2.21	59.9+0.3

### Index

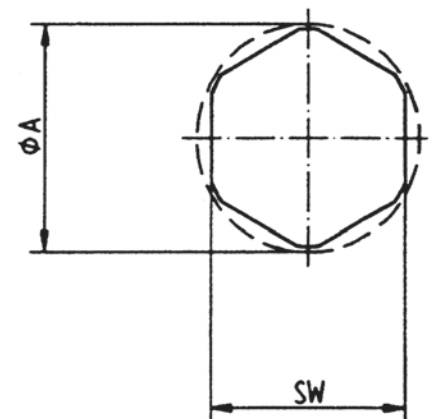
$\emptyset d_1$	=	core diameter
$\emptyset d_2$	=	exterior diameter
$\emptyset d_3$	=	hole diameter
p	=	pitch

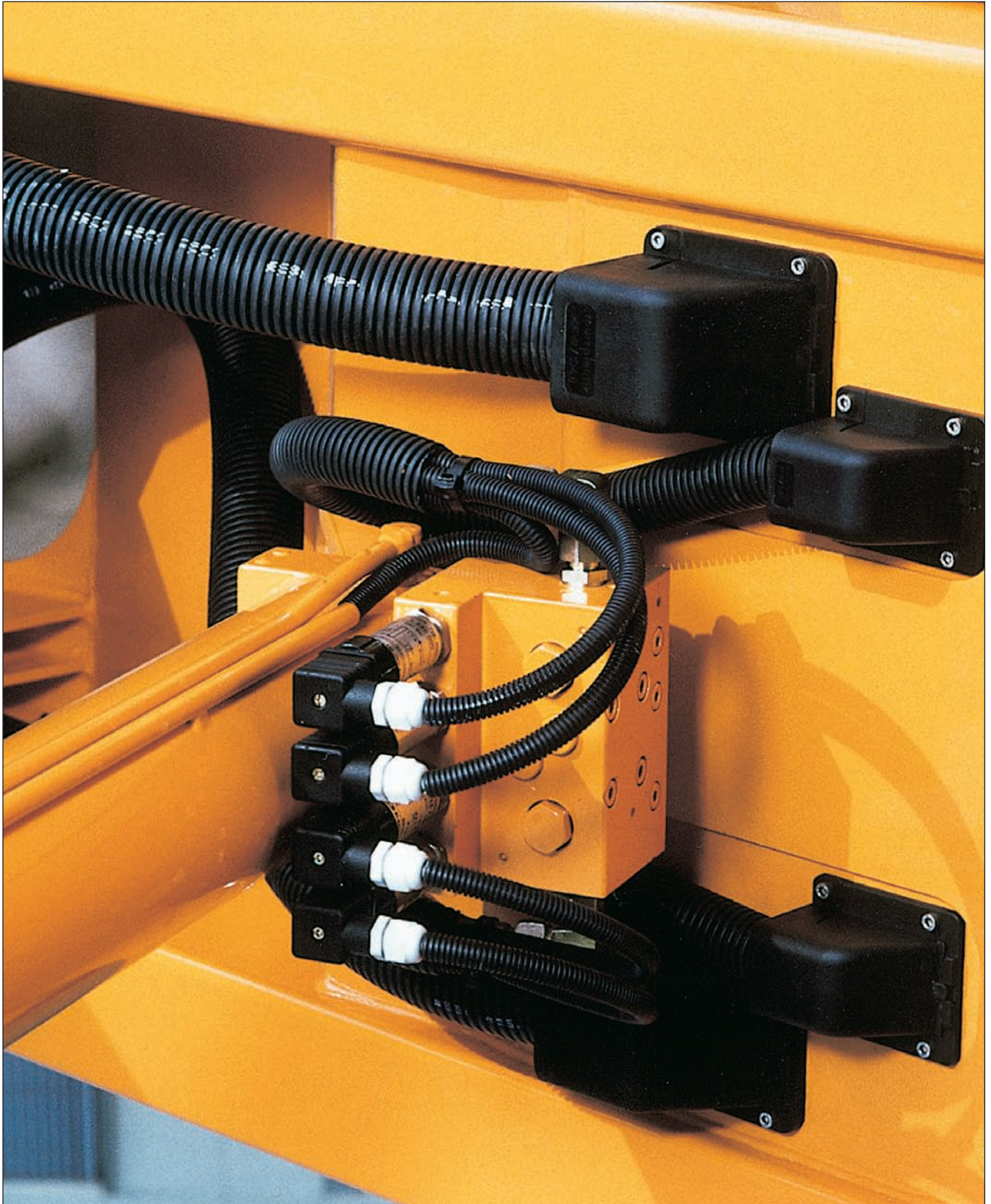
## Installation dimensions and widths across flats

Diameter A indicates the assembly space required for the corresponding hexagon.

This diameter corresponds to the width across corners of the hexagon plus an assembly margin.

Width across flats (SW)	A inches (mm)		
9	0.41 (10.4)	37	1.63 (41.5)
11	0.49 (12.5)	39	1.73 (44.0)
13	0.59 (14.9)	40	1.78 (45.2)
14	0.63 (16.0)	41	1.81 (46.1)
15	0.67 (17.1)	42	1.85 (47.0)
16	0.72 (18.2)	45	2.02 (51.2)
17	0.76 (19.4)	46	2.07 (52.5)
19	0.87 (22.0)	47	2.11 (53.5)
20	0.89 (22.7)	50	2.30 (58.3)
21	0.94 (23.9)	53	2.36 (60.0)
22	0.98 (25.0)	54	2.40 (61.0)
24	1.07 (27.3)	55	2.44 (62.0)
27	1.20 (30.6)	57	2.54 (64.4)
28	1.25 (31.8)	60	2.66 (67.5)
29	1.28 (32.5)	64	2.85 (72.3)
30	1.34 (34.0)	65	2.88 (73.1)
32	1.43 (36.2)	66	2.93 (74.5)
33	1.46 (37.2)	67	2.97 (75.5)
36	1.59 (40.5)		







# Chemical resistance of plastics

Reagent	Concentration %	At + °F (°C)	Polyethylene PE	Polyamide PA6	Polyamide PA 12	Polypropylene PP	Polyurethane PU
Exhaust gases containing carbon oxide	any	60(140)				+	+
Exhaust gases containing carbon dioxide	any	60(140)				+	+
Acetaldehyde	100	68(20)	+	40 % o	+		+
Acetone	100	68(20)	+	+	+	+	-
Ethyl acrylate/acrylic resin enamel	100	68(20)	-	30 % -	-		
Ethyl ether	100	68(20)		30 % +		o	-
Ethyl alcohol, aqueous	10	68(20)		o		+	+
Ethylene chloride	100	68(20)				o	-
Ethylene oxide, liquid	100	68(20)					
Alum, aqueous	diluted	104 (40)			+	+	
Allyl alcohol	96	68(20)		30 % o	o	+	-
Aluminum chloride, aqueous	diluted	104(40)	+		+	+	+
Aluminum sulphate, aqueous	diluted	104(40)	+			+	+
Formic acid, aqueous	100	68(20)		10 % o	-	+	-
Ammonia, aqueous	any	68(20)	+	20 % +		+	o
Ammonium chloride, aqueous	any	60 (140)	+		o	+	+
Ammonium nitrate, aqueous	diluted	104(40)	+			+	+
Ammonium sulphate, aqueous	diluted	104(40)	+			+	+
Aniline, pure	100	68 (20)	+	o	o	+	-
Aniline chlorohydrate, aqueous	saturated	68 (20)					
Benzaldehyde, aqueous	0,3	68 (20)	-	pure o	o	+	
Benzine	100	68 (20)	-	+	+	o	+
Benzol	100	68 (20)	-	+	+	o	-
Benzoic acid	any	104(40)	+		o	+	+
Bleaching lye	12.5 Cl	68 (20)		-	o	o	
Boron	50	104(40)			o		
Borax, aqueous	diluted	104(40)			o	+	+
Boracic acid, aqueous	diluted	104(40)	+		o	+	+
Bromine, liquid	100	68 (20)	-	-	o	-	-
Hydrobromic acid, aqueous	10	104 (40)	+	-		+	-
Butane diol	10	68 (20)		pure +		+	o
Butanol	100	68 (20)				+	+
Butyl acetate	100	68(20)				o	-
Butyl alcohol	100	68(20)	-			+	o
Calcium chloride, aqueous	any	104 (40)	+	+	o	+	+
Calcium nitrate, aqueous	50	104 (40)	+			+	+
Chlorine	any	68(20)	-	-	-	-	-
Methyl chloride	100	68(20)					
Chromic alum, aqueous	diluted	104(40)				+	
Cyclohexanol	100	68(20)		+		+	-
Iron chloride, aqueous	10	104(40)	+	o	+	+	+
Crystallisable acetic acid	100	68(20)			o	+	
Acetic acid	10	68(20)	+	o	o	+	o
Potassium ferrocyanide, aqueous	any	60 (140)	o			+	
Fluorine	50	104(40)		-			
Formaldehyde, aqueous	diluted	104(40)	+	pure +	o	+	o
Glucose, aqueous	any	68(20)	+			+	+
Urea, aqueous	10	104(40)		20 % +		+	+
Hydroxylamine sulphate, aqueous	12	65(35)					+
Caustic potash solution	50	68(20)		50 % +		+	o
Potassium bromide, aqueous	any	60 (140)	+	10 % +		+	o

The information provided above enables an initial choice to be made. However, it is not intended as a guarantee of particular properties of the products or their suitability for a particular application. It does not release the buyer from the duty of carrying out suitability checks.

**+ means:** resistant  
**o means:** resistant to a limited extent  
**- means:** not resistant



Reagent	Concentration %	At + °F (°C)	Polyethylene PE	Polyamide PA6	Polyamide PA 12	Polypropylene PP	Polyurethane PU
Potassium chloride, aqueous	any	68 (20)	+	10 % +		+	+
Potassium dichromate, aqueous	40	68 (20)				+	+
Potassium nitrate	any	68 (20)	+	10 % +	+	+	+
Potassium permanganate, aqueous	6	68 (20)	+		o	+	-
Potassium persulfate, aqueous	diluted	104 (40)	-		+	+	+
Hydrosilicofluoric acid	30	68 (20)	-				
Salt solution	any	104 (40)			+	+	+
Carbon oxide	100	60 (140)	+			+	+
Carbon dioxide	100	60 (140)	+			+	+
Cresol, aqueous	90	68 (20)	-	pure -	-	+	-
Copper chloride, aqueous	saturated	68 (20)	+			+	+
Copper sulphate, aqueous	any	104 (40)	+			+	+
Magnesium chloride, aqueous	any	68 (20)	+	10 % o		+	+
Magnesium carbonate	any	68 (20)					+
Methyl alcohol	100	68 (20)	+			+	o
Methylene chloride	100	68 (20)		o	o	-	-
Lactic acid, aqueous	50	68 (20)	o	pure +	o	+	o
Soda lye, aqueous	10	68 (20)	+	+	+	+	o
Sodium chlorate, aqueous	any	68 (20)	+	10 % o		+	+
Nickel chloride, aqueous	any	68 (20)		10 % o		+	+
Nickel sulphate, aqueous	any	68 (20)	+	10 % o		+	+
Nitroglycerine	diluted	68 (20)					
Oils and greases		68 (20)	o	+	+	+	+
Oleic acid	100	68 (20)		+		+	o
Oxalic acid	saturated	68 (20)	+	10 % o		+	o
Ozone	100	68 (20)	o	o	+	o	o
Petroleum							+
Phosgene, liquid	100	68 (20)					-
Phosphorus pentoxide	100	68 (20)				+	
Phosphoric acid, aqueous	diluted	68 (20)	+	10 % -	o	+	o
Photographic developer		104 (40)				+	
Potash, aqueous	saturated	104 (40)			+		+
Mercury		60 (140)	+	+	+	+	+
Nitric acid, aqueous	6	68 (20)	+	50 % -	-	+	-
Hydrochloric acid	10	86-104 (30-40)					
Hydrochloric acid, aqueous	10	68 (20)	+	20 % -	o	+	-
Carbon bisulphide	100	68 (20)	-	o	+	+	+
Sodium sulphide, aqueous	diluted	104 (40)				+	
Sulphuric acid	10	68 (20)	+	40 - 80 % -	o	+	+
Seawater		104 (40)	+	+	o	+	+
Soap solution, aqueous	concentrated	68 (20)		o		+	+
Carbon tetrachloride	100	68 (20)		+	o	o	+
Trichloroethylene	100	68 (20)	-	o		o	-
Toluene	100	68 (20)	-	+	+	o	+
Vinyl acetate	100	68 (20)					-
Hydrogen	100	60 (140)		+			+
Xylene	100	68 (20)		+	+	o	+
Zinc chloride, aqueous	diluted	60 (140)	+	10 % o	o	+	+
Zinc sulphate, aqueous	diluted	60 (140)	+			+	+
Tin chloride, aqueous	diluted	104 (40)			+	+	+
Citric acid	10	104 (40)	+			+	o



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All information with respect to the chemical and physical properties of Murrplastik products as well as application advice given verbally, in writing or by tests, is given to the best of our knowledge.

It does not exempt the purchaser from the duty to carry out inspections and tests to determine the exact suitability of the products for the intended use.

The purchaser is solely liable for the application, use, and installation of the products. He must also comply with the legal and official provisions, and observe any possible property rights of third parties.

Our General Terms and Conditions shall apply.

Subject to technical alterations.

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0101BU



MP8903834000

## Specifications



**Temperature range**



**Material**



**Fire classification**



**Crush resistance**



**Protection class**



**Additional information  
for use and processing**

At the back you will find information  
on markings and approvals.  
Please open out if necessary.



## Approvals/Explanations



**CE**  
Products conforms to EU directives



**UR**  
Product is UR/UL listed



**CSA**  
Approved for the Canadian market



**VDE**  
VDE certified product



**Ex**  
Product can be used in areas at risk of explosion



**DB**  
Certified for German railway engineering



**BS**  
Certified for British railway engineering



**SNCF**  
Certified for French railway engineering



**Robot/handling systems**  
Product suitable for permanent movement



**FAR**  
Approved for aerodynamic engineering



**ABD**  
Approved for aerodynamic engineering