

PMA-System

Quick & Easy

PMAFIX-system assembles fast. With a knife you can cut the conduit leaving the cut edge clean and smooth. The patented PMAFIX connectors are now even easier to mount. No special tools are needed. The assembly is done in no time at all.

When wiring, the smooth internal corrugation reduces friction between the cable and conduit by up to 50% compared with non corrugated conduits, which means it's easier to insert cables through the conduit.

Strength & Quality

PMAFIX-system is made from special polyamide and gives optimal protection for cables. The conduits can be bent very easily in all directions, which makes them suitable in vehicle and robotic applications which are in constant motion.

All our conduits are self-extinguishing and free of halogen, phosphor & cadmium. When burnt, no poisonous or damaging gases or acids are emitted.

Oil resistant

All PMA FLEX conduits are made of polyamide and are resistant against oils (cutting oil, hydraulic oil, ASTM-oil etc), fats, petrol and different acids.

We have the conduit you need.

With 100 different conduits to choose from, we can adapt to all different quality and application areas. This catalogue details only part of our range of conduits and accessories. In Australia we stock a full range of conduits and connectors for the railway industry, machine building and robotics.

The PMAFLEX range, offers conduits for technically demanding applications and special requirements. Conduit sizes range from 4.5mm to 125mm diameters, from lightweight to heavyweight and pliable to highly flexible. Standard colours are black and grey. Many conduits are specifically approved. e.g. CSA, UL, Recognition, NF, SNCF, DB etc.

Please contact us and we will help you find the right solution.

All PMA products are rigorously tried and tested to meet the demands of industry worldwide.



PMA Flexible Conduits



Machine Building Mining	CF Easiflex, PCL, VOH	272
Robotic	PIS, POS & PUE	273
Flexible Conduits for External Railway applications	PCS , PCSL, XPCSF	274
Flexible Conduits for Railway	VAML, VAM	275
Flexible Conduits for External Railway applications	VCS & XVCSF	276

PMAFIX Pro IP68 + IP69



Key Features	Next Generation	277
Code Reference	Connector Series	278
PMAFix Pro Straight Metric Metal	NKNH	279
Straight, Strain Relief Metric, Metal	NKNZ	280
45° Elbow, Metric, Metal	NKAH	281
90° Elbow, Metric, Metal	NKBH	281
Female Thread Adapter	BKIHG	282
Female Thread Adapter, Metal	NKIS	282

PMA Connectors



Universal Clips Installation Procedure		283
Code Reference		284
Straight	BVND & BVNV	285
90°	BVWD & BVWV	285
45°	BVAD & BVAV	286
90°	BVBD & BVBV	286
90° Flanged	BVOD & BVOV	287
Straight Female	BVID & BVIR	287
Y Piece	BVYD & BVYR	287
T Piece	BVTD & BVTR	288
Y Piece Split	BFVD & BFVL	288
Strain Relief	BVNDZ & BNVZ	288
Adapter AMP	BVIDA, BVIDB	289
Adapter NEF	BVIDG & BVIVG	290
Straight Metal Thread	NVNV	291
90° Metal Thread	NWV	292
45° Metal Thread	NVAV	292
90° Curved Metal Thread	NVBV	293
Straight Female Metal Thread (Metric)	NVIR	293
Straight Metric, Strain Relief Metal	NVNZ	294
Straight Metric, Strain Relief Metal, Long	NVNZ	295

PMA Smart Line



Straight, metric	ALND	296
90° elbow, metric	ALWD	296
45° elbow, metric	ALAD	297



PMA Accessories



Sensor Adapter	TFIL	298
Connector Splices	BVSGD & BVSGR	298
Reducer / Adapter	BAVD & BAVR	298
PMA Support	BFH, BGPS & BGP	299
Tube Clamps	SGB	300
Conduit Protection Sleeves	RKS & BSS	300
Locknuts	GM-FS & GM-MS	301
Endcaps	BCT	301

Divisible Systems



Split Conduit	PACOF, PPCOF	302
Divisible Straight - Metric	BLNO	302
Divisible T Piece	BLTO	303
Divisible Y Piece	BLYO	303
Divisible Lock Nuts - Metric	BLN	303

Jumbo System



Jumbo Conduit	CF, CYLG, PIHG, PUEG, LLPAG & VOHG	304
Straight	BGG/BGGV	305
Elbow	BGO/BGOV	305
Straight Thread	BGG	305
Tube Clamps	BGH, SGS	306

PMA Braided Cable Protection



Braided Hose	F.66, C.66, L.66	308
Braided Hose	F.PX, L.PX	309
Open Braided Hose	G.PX	309
PMAJACK Termination	SRER/SREV	310
PMAJACK Polyamide Female Thread Adapter	BREIR	310
PMAJACK Metal Female Thread Adapter	MREIR	310

PMA Automation



Automation Products		312
Automation Introduction		313
For robotics on automation applications	PIS/PIH, PUE, XR 90, POS	314
One piece, Half shell inserts	BSH, BGN	315
System supports for standing	BGS, BTK, BTR	316
Tube clamps	BKE, BLH, , SS/SV, DKLK	317

Technical Data



Chemical Resistance	Polyamide	318
Ingress Protection		319

Treoflex



Treoflex Liquidtite Metal	Conduits	320
Treoflex Liquidtite	Straight	321
Treoflex Liquidtite	90° & 45°	322
Flexible Conduits Metric	Low Smoke Metric Size	323





PMA Flex Conduits - Machine Building - Mining

CF Easiflex

very flexible, medium



Temperature range: -40°C to +105°
Short term to: -140°C

System belonging to: PMA Economy Fittings, PMAFIX
Product performance: Meet requirements according to IEC EN 61386.

ADR approved

The PMA EASIFLEX conduit type CF are produced from specially modified polyamide (PA6) The material is self extinguishing and free of halogen, phosphor and cadmium. These economical, medium-wall conduits offer good impact resistance and flexibility. They are generally used in the machine building and installation industries. These conduits are generally available with fine profile.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
CF - 07B	7	10	6.2 mm	10.0 mm	15 mm	50
CF - 10B	10	12	9.6 mm	13.0 mm	20 mm	50
CF - 12B	12	16	12.0 mm	15.8 mm	30 mm	50
CF - 17B	17	20	16.2 mm	21.2 mm	40 mm	50
CF - 23B	23	25	22.6 mm	28.5 mm	40 mm	50
CF - 29B	29	32	29.0 mm	34.5 mm	50 mm	50
CF - 36B	36	40	36.5 mm	42.5 mm	60 mm	30
CF - 48B	48	50	47.5 mm	54.5 mm	70 mm	30
CF - 70B	70	80	68.0 mm	80.0 mm	160 mm	30
CF - 95B	95	106	91.5 mm	105.5 mm	210 mm	30
SMART LINE						
LLPAG-56A	56	63	56.3mm	67.2mm	120mm	30

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PCL

very flexible, medium



- Specially modified polyamide 6/6.6 for cold impact.
 - Self extinguishing
 - Free of halogen, phosphor and cadmium
 - High impact strength also at low temperatures
- Temperature range: -50° C to +105° Short term to +150°C
Chemical Resistance: To fuels, mineral oils, fats, alkalies weak acids and bases etc.

The PMAFLEX conduit type PCL is suitable for a wide range of applications in general machine building. Further, this conduit type can be used in the vehicle building industries. This product is characterised by its high weather resistance and applicability at low temperatures.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	Stat** Radius	PU Meter
	NW	Metric				
PCLT - 07B	7	10	6.2 mm	10.0 mm	15 mm	50
PCLT - 10B	10	12	9.6 mm	13.0 mm	20 mm	50
PCLT - 12B	12	16	12.0 mm	15.8 mm	30 mm	50
PCLT - 17B	17	20	16.2 mm	21.2 mm	40 mm	50
PCLG - 23B	23	25	21.9 mm	28.5 mm	45 mm	30
PCLG - 29B	29	32	27.6 mm	34.5 mm	55 mm	30
PCLG - 36B	36	40	36.0 mm	42.5 mm	60 mm	30
PCLG - 48B	48	50	47.0 mm	54.5 mm	70 mm	10
PCLG - 56B	56					
PCLG - 70B	70					
PCLG - 95B	95					
PCLG - 125B	125					

Jumbo - See page 304 for further information

* Stat. R = lowest recommended bending radius for static (fixed) installation.

The PMA HEAVY DUTY conduit type VOH, with it's high impact strength and pullout resistance, meets US standards for conduit connections in machines and installations. Also for use in exterior machine and installation connections (from NW17). Due to the heavy construction and excellent flame properties, this conduit is also used within the traction, vehicle and mining industry.

VOH

flexible, heavy duty



- Specially modified polyamide 6.
 - Very good self extinguishing
 - Free of halogen, phosphor, and cadmium
 - High impact strength and pull out resistance
 - High stiffness and compression strength
- Temperature range: -40°C to +105° Short term to +150°C
Chemical Resistance: To fuels, mineral oils, fats, alkalies weak acids and bases etc.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
VOHD - 07B	7	10	5.8 mm	10.0 mm	20 mm	50
VOHD - 10B	10	12	9.0 mm	13.0 mm	25 mm	50
VOHD - 12B	12	16	11.6 mm	15.8 mm	30 mm	50
VOHG - 17B	17	20	14.5 mm	21.0 mm	40 mm	30
VOHG - 23B	23	25	21.1 mm	28.5 mm	50 mm	30
VOHG - 29B	29	32	26.6 mm	34.5 mm	60 mm	30
VOHG - 36B	36	40	35.0 mm	42.5 mm	70 mm	10
VOHG - 48B	48	50	46.5 mm	54.5 mm	80 mm	10
VOHG - 56B	56	-	55.5 mm	67.2 mm	135 mm	10
VOHG - 70B	70	-	67.0 mm	80.0 mm	200 mm	10
VOHG - 95B	95	-	90.5 mm	106.0 mm	300 mm	10
VOHG - 125B	125	-	126.0 mm	146.5 mm	480 mm	6

** Stat R. + lowest recommended bending radius for static (fixed) installation.



Flexible Conduits for Robots

PIS

highly flexible, medium



- Material: Specially modified polyamide
 - Free from halogens
 - Excellent flexibility
 - Very good weathering resistance and cold temperature performance
- Temperature range: -40°C to +90°C;
Short-term: to +140°C

These PMA Smart Line conduits (mod. PA12) are specially applicable in the robotic and automation industries. LLPI shows excellent fatigue strength in dynamic applications

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
PIST - 07B	7	10	6.2 mm	10.0 mm	15/40 mm	50
PIST - 10B	10	12	9.6 mm	13.0 mm	20/50 mm	50
PIST - 12B	12	16	11.9 mm	15.8 mm	25/65 mm	50
PIST - 17B	17	20	16.4 mm	21.1 mm	30/65 mm	30
PISG - 23B	23	25	22.6 mm	28.4 mm	35/90 mm	30
PISG - 29B	29	32	29.0 mm	34.3 mm	45/110 mm	30
PISG - 36B	36	40	36.5 mm	42.5 mm	60/165 mm	10
PISG - 48B	48	50	47.5 mm	54.5 mm	70/180 mm	10
PIHG - 56B	56					
PIHG - 70B	70					
PIHG - 95B	95					
PIHG - 125B	125					

Jumbo See page 304 for further information

POS

very flexible, medium



- High grade, Specially modified polyolefin
 - Excellent reversed bending performance and flexibility
 - Very good insulating characteristics
 - Good impact resistance
 - Free of halogens and cadmium
- Temperature range: -25 °C to +95 °C
Short term: to +130 °C
Chemical Resistance: Strong acids

In Automation as well as in machine building and industrial installations, especially where continuous movements occur.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
POST-10B	10	12	9.6 mm	13.0 mm	20 mm	50
POST-12B	12	16	11.9 mm	15.8 mm	30 mm	50
POST-17B	17	20	16.2 mm	21.2 mm	35 mm	50
POST-23B	23	25	22.6 mm	28.5 mm	40 mm	50
POST-29B	29	32	29.0 mm	34.5 mm	50 mm	50
POST-36B	36	40	36.5 mm	42.5 mm	60 mm	30
POST-48B	48	50	47.5 mm	54.5 mm	70 mm	30
POSG-29B	29	32	27.6 mm	34.5 mm	50 mm	50
POSG-36B	36	40	36.0 mm	42.5 mm	60 mm	30
POSG-48B	48	50	47.0 mm	54.5 mm	70 mm	30
POSG-70B	70	80	67.2 mm	79.6 mm	150 mm	30
POSG-95B	95	106	91.3 mm	106.0 mm	170 mm	30

PUE

highly flexible, medium.



- Material: Specially modified polyurethane
 - Free from halogens and cadmium
 - Excellent chafing properties.
- Temperature range: -60°C to +50°C
Chemical resistance: To fuels, mineral oils and fats etc.

For dynamic applications in robotics and automation.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
	NW	Metric				
PUET-23B	23	25	22.4 mm	28 mm	35 / 70 mm	50
PUET-29B	29	32	28.8 mm	34.5 mm	40 / 90 mm	30
PUET-36B	36	40	35.8 mm	42.4 mm	50 / 120 mm	30
PUET-48B	48	50	48.6 mm	54.5 mm	60 / 130 mm	21
PUEG-56B	56	68	56.3 mm	67.2 mm	90 / 170 mm	30
PUEG-70B	70	80	68.2 mm	80.5 mm	100 / 220 mm	30

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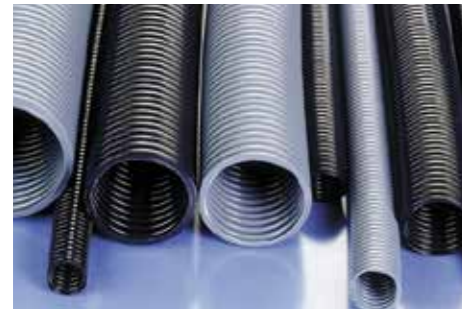




Flexible Conduits for External Railway applications

PCS

highly flexible, heavy duty



- Specially modified polyamide 12
 - Self-extinguishing
 - Free from halogens and cadmium
 - Excellent mechanical properties also at low temperatures
- Temperature range:** - 50 °C to +105 °C;
Short-term: to +150 °C
Chemical resistance: To fuels, mineral oils, fats, alkalies, weak acids etc.

These highly flexible, heavy-grade conduits are characterized by outstanding resistance to weather and UV (sunlight) as well as by excellent low-temperature properties. They are used in railway construction, especially for exterior applications as well as for all applications involving movements in extreme weather conditions.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
	NW	Metric				
PCST-07B	7	10	6.0 mm	10.0 mm	15 / 40 mm	100
PCST-10B	10	12	9.2 mm	13.0 mm	20 / 50 mm	50
PCST-12B	12	16	11.8 mm	15.8 mm	25 / 70 mm	50
PCST-17B	17	20	16.0 mm	21.2 mm	35 / 80 mm	50
PCSG-17B	17	20	15.2 mm	21.2 mm	35 / 85 mm	50
PCSG-23B	23	25	22.0 mm	28.5 mm	40 / 110 mm	50
PCSG-29B	29	32	27.7 mm	34.4 mm	50 / 130 mm	50
PCSG-36B	36	40	35.8 mm	42.4 mm	60 / 180 mm	30
PCSG-48B	48	50	46.8 mm	54.4 mm	70 / 220 mm	30
PCSG-56B	56	68	56.1 mm	67.2 mm	130 / 280 mm	30
PCSG-70B	70	80	66.5 mm	80.0 mm	170 / 360 mm	10
PCSG-95B	95	106	91.0 mm	106.0 mm	250 / 470 mm	10

PCSL

highly flexible, heavy duty



- Specially modified polyamide 12
 - Self-extinguishing
 - Free from halogens and cadmium
 - Excellent mechanical properties also at low temperatures
- Temperature range:** - 50 °C to +105 °C;
Short-term: to +150 °C
Chemical resistance: To fuels, mineral oils, fats, alkalies, weak acids etc.

For dynamic outside applications in railway vehicles. For outdoor applications with highest requirements to UV and weathering resistance. Extensive railway approvals.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
	NW	metric				
PCSLT-07B	7	10	6.0 mm	10.0 mm	15 / 40 mm	100
PCSLT-10B	10	12	9.2 mm	13.0 mm	20 / 50 mm	50
PCSLT-12B	12	16	11.8 mm	15.8 mm	25 / 70 mm	50
PCSLT-17B	17	20	16.0 mm	21.2 mm	35 / 80 mm	50
PCSLG-17B	17	20	15.2 mm	21.2 mm	35 / 85 mm	50
PCSLG-23B	23	25	22.0 mm	28.5 mm	40 / 110 mm	50
PCSLG-29B	29	32	27.7 mm	34.4 mm	50 / 130 mm	50
PCSLG-36B	36	40	35.8 mm	42.4 mm	60 / 180 mm	30
PCSLG-48B	48	50	46.8 mm	54.4 mm	70 / 220 mm	30
PCSLG-56B	56	68	56.1 mm	67.2 mm	130 / 280 mm	30
PCSLG-70B	70	80	66.5 mm	80.0 mm	170 / 360 mm	10
PCSLG-95B	95	106	91.0 mm	106.0 mm	250 / 470 mm	10

XPCSF

very flexible, heavy-duty



- High-grade, specially formulated PA12/PA12
 - Excellent resistance to UV rays and atmospheric corrosion
 - Excellent flexibility
 - Good mechanical strength, also at dry conditions
 - Self-extinguishing
 - Free from halogens and cadmium
- Temperature range:** -50°C ... +95°C continuous, +150°C
Short-term: to +150 °C
EN 45545-2 HL3: (requirement set R23)

The XPCSF multilayer conduit with orange inner layer is suitable for use in all external rail rolling stock applications. For inter-carriage jumper cables, for installations on the roof and for applications on the undercarriage and bogies. It achieves a HL3 classification according to requirement set R23 of EN45545-2 allowing use on all train design and operating categories.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
	NW	metric				
XPCSFT-07BO	7	10	6.0 mm	10.0 mm	15 / 40 mm	100
XPCSFT-10BO	10	12	9.2 mm	13.0 mm	20 / 50 mm	50
XPCSFT-12BO	12	16	11.8 mm	15.8 mm	25 / 70 mm	50
XPCSFG-17BO	17	20	15.2 mm	21.2 mm	35 / 85 mm	50
XPCSFG-23BO	23	25	22.0 mm	28.5 mm	40 / 110 mm	50
XPCSFG-29BO	29	32	27.7 mm	34.4 mm	50 / 130 mm	50
XPCSFG-36BO	36	40	35.8 mm	42.4 mm	60 / 180 mm	30
XPCSFG-48BO	48	50	46.8 mm	54.4 mm	70 / 220 mm	30
XPCSFG-56BO	56	68	56.1 mm	67.2 mm	130 / 280 mm	30
XPCSFG-70BO	70	80	66.5 mm	80.0 mm	170 / 360 mm	10
XPCSFG-95BO	95	106	91.0 mm	106.0 mm	250 / 470 mm	10
XPCSFG-125BO	125	146	125.0mm	144.5mm	230 / 580 mm	6



Flexible Conduits for Railway

VAML

flexible, medium



- Polyamide 6 specially modified for cold impact
 - Outstanding self-extinguishing characteristics
 - Minimal development of smoke and gases
 - Free from halogens and cadmium
 - Excellent mechanical properties also at low temperatures
- Temperature range:** - 50 °C to +105 °C;
Short-term: to +150 °C
Chemical resistance: To fuels, mineral oils, fats, alkalies, weak acids etc.

PMAFLEX VAML is suitable for passenger areas of railway vehicles. Excellent fire safety characteristics allow application in public buildings like hospitals, hotels, airports, trainstations, shopping centres etc.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
	NW	metric				
VAMLT-07B	7	10	6.2 mm	10.0 mm	15 mm	50
VAMLT-10B	10	12	9.6 mm	13.0 mm	20 mm	50
VAMLT-12B	12	16	12.0 mm	15.8 mm	30 mm	50
VAMLG-17B	17	20	15.3 mm	21.2 mm	40 mm	50
VAMLG-23B	23	25	22.6 mm	28.5 mm	45 mm	50
VAMLG-29B	29	32	27.6 mm	34.4 mm	55 mm	50
VAMLG-36B	36	40	36.0 mm	42.5 mm	65 mm	30
VAMLG-48B	48	50	47.0 mm	54.5 mm	75 mm	30
VAMLG-56B	56	68	56.3 mm	67.2 mm	140 mm	30
VAMLG-70B	70	80	67.5 mm	80.0 mm	160 mm	10
VAMLG-95B	95	106	91.5 mm	106.0 mm	210 mm	10
VAMLG-125B	125	148	126.0 mm	146.5 mm	450 mm	6

VAM

flexible, heavy duty



- Polyamide 6 specially modified for cold impact
 - Self-extinguishing
 - Free from halogens and cadmium
 - Excellent mechanical properties also at low temperatures
- Temperature range:** - 50°C to +105°C;
Short-term: to +150°C
Chemical resistance: To fuels, mineral oils, fats, alkalies, weak acids etc.

For high fire and passenger safety requirements in interior applications such as passenger areas or public buildings.
 HL3 acc. to EN 45545-2

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
	NW	metric				
VAMT-07B	7	10	6.0 mm	10.0 mm	20 mm	100
VAMT-10B	10	12	9.2 mm	13.0 mm	25 mm	50
VAMT-12B	12	16	11.8 mm	15.8 mm	30 mm	50
VAMT-17B	17	20	16.0 mm	21.2 mm	40 mm	50
VAMG-17B	17	20	15.2 mm	21.2 mm	40 mm	50
VAMG-23B	23	25	22.0 mm	28.5 mm	50 mm	50
VAMG-29B	29	32	27.7 mm	34.4 mm	60 mm	50
VAMG-36B	36	40	35.8 mm	42.4 mm	70 mm	30
VAMG-48B	48	50	46.8 mm	54.4 mm	80 mm	30
VAMG-56B	56	68	56.1 mm	67.2 mm	150 mm	30
VAMG-70B	70	80	66.5 mm	80.0 mm	200 mm	10
VAMG-95B	95	106	91.0 mm	106.0 mm	300 mm	10





Flexible Conduits for external rail application

VCS

flexible, heavy duty



- Polyamide 6 specially modified for cold impact
 - Self-extinguishing
 - Free from halogens and cadmium
 - Excellent mechanical properties also at low temperatures
- Temperature range:** - 50°C to +105°C;
Short-term to +150°C

Chemical resistance: To fuels, mineral oils, fats, alkalies, weak acids etc.

For static external installations, especially in railway vehicles

Order No. Black	Conduit size NW	Conduit size metric	Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
VCST-07B	7	10	6.0 mm	10.0 mm	20 mm	100
VCST-10B	10	12	9.2 mm	13.0 mm	25 mm	50
VCST-12B	12	16	11.8 mm	15.8 mm	30 mm	50
VCST-17B	17	20	16.0 mm	21.2 mm	40 mm	50
VCSG-17B	17	20	15.2 mm	21.2 mm	40 mm	50
VCSG-23B	23	25	22.0 mm	28.5 mm	50 mm	50
VCSG-29B	29	32	27.7 mm	34.4 mm	60 mm	50
VCSG-36B	36	40	35.8 mm	42.4 mm	70 mm	30
VCSG-48B	48	50	46.8 mm	54.4 mm	80 mm	30
VCSG-56B	56	68	56.1 mm	67.2 mm	150 mm	30
VCSG-70B	70	80	66.5 mm	80.0 mm	200 mm	10
VCSG-95B	95	106	91.0 mm	106.0 mm	300 mm	10

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XVCSF

flexible, heavy duty



- Outer layer: specially formulated polyamide 6
 - Inner layer: specially modified polyamide 6
 - Excellent resistance to UV rays and weathering
 - Good flexibility
 - High compression and impact strengths at low temperature and low humidity
 - Self-extinguishing
 - Free from halogens and cadmium
- Temperature range:** - 50°C to +105°C;
Short-term to +160°C
- Chemical resistance:** To fuels, mineral oils, fats, alkalies, weak acids etc.

The XVCSF multilayer conduit with blue inner layer is suitable for use in rail static external applications such as under carriage, bogie, etc.

Order No. Black	Conduit size NW	Conduit size metric	Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU meter
XVCSFT-10BB	10	12	9.6 mm	12.8mm	20 mm	50
XVCSFT-12BB	12	16	11.9 mm	15.6 mm	25 mm	50
XVCSFG-17BB	17	20	15.2 mm	21.1 mm	40 mm	50
XVCSFG-23BB	23	25	21.5.0 mm	28.4 mm	50 mm	50
XVCSFG-29BB	29	32	27.7 mm	34.5 mm	60 mm	50
XVCSFG-36BB	36	40	35.9 mm	42.4 mm	75 mm	30
XVCSFG-48BB	48	50	46.8 mm	54.5 mm	90 mm	30

Treotham has a full range of robotic conduits and fittings pages 300-305.



Next Generation Cable Protection

The extremely successful and technically proven PMAFIX System has been developed further to create the PMSFIX Pro product range. The new generation fittings are the product of experience gained over many years in the most varied application areas. The PMAFIX Pro has two components, an outer body and an inner sealing element. The sealing element functions both as a seal and as a locking mechanism providing all ingress protection grades up to IP68 and IP69K even in applications where there is long term continuous movement. PMAFIX Pro is manufactured by using multiple component injection moulding process.

PMAFIX Pro Key Features

- IP68 and IP69K static and dynamic
- Newest 2-component injection moulding technology
- Highest international quality standards
- Meets all ingress protection categories up to and including IP68 and IP69K even when the conduit connection is continually in motion
- Simple "push in" installation
- Maximal assembly and operating safety
- Recommended for PMAFLEX heavy duty conduits
- Screwdriver required for dismantling, impeding unauthorised or accidental opening.

Technical Details

Highest impact resistance through fully closed design

- The perfectly symmetrical and fully closed fitting design prevents potentially increased impact stresses at edges and corners.

All IP classes up to and including IP68 and IP69K in static and dynamic applications

- Extra long ribbed sealing areas (cross linked material)
- 360° locking and sealing element shields against high pressure water jets (up to 100 bar)

Highest pull out strength

- Highest pull out strength achieved through 360° grip on the conduit profile

Intelligent safety locking mechanism

- Highest assembly reliability – the fitting only locks when the sealing element is fully inserted
- Highest operational safety assured through visual and acoustic correct assembly controls

Connecting the threads

- Metric threads in both metal and polyamide

Integrated conduit supports

- The conduit remains centralised with little deformation even when bent sharply directly at the fitting
- Sealing up to and including IP68 and IP69K in static and dynamic applications also over long periods at high temperatures



5





IP68 + IP69K Static and Dynamic

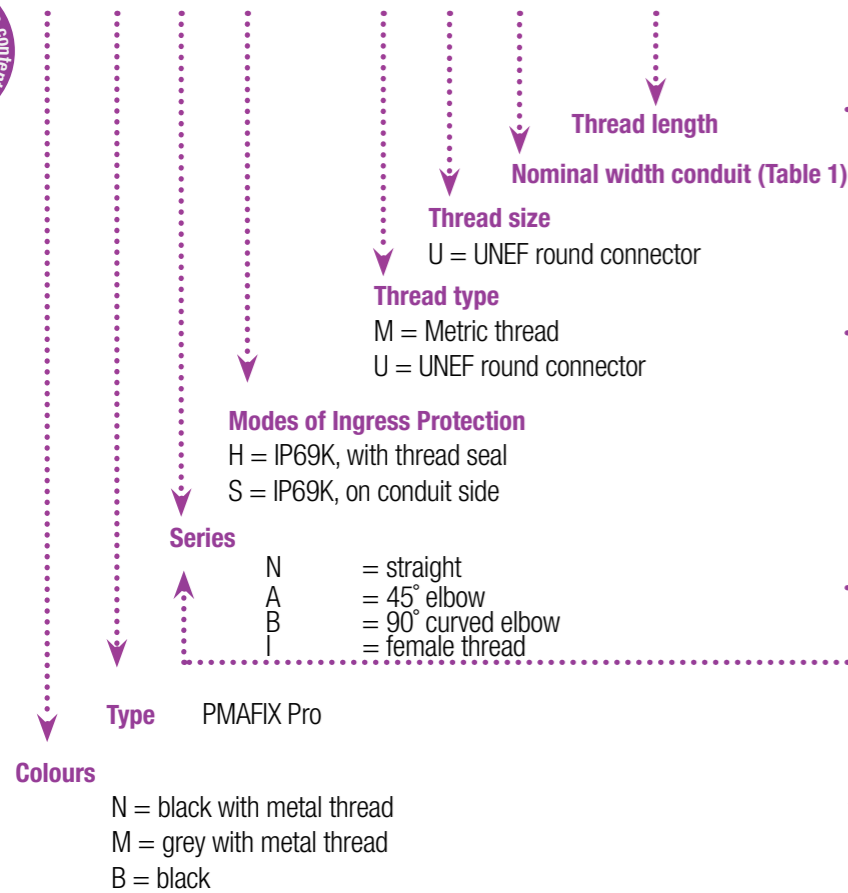


Highest sealing through fully closed system

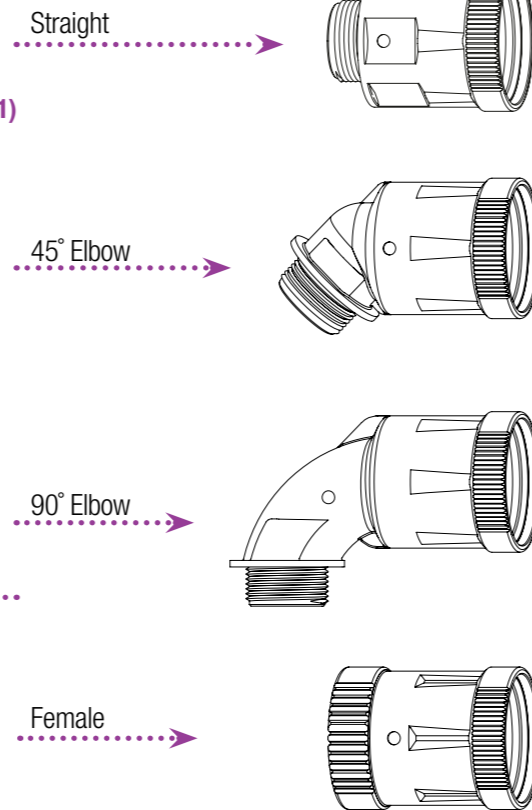
- For highest dynamic applications
- Fits any type of conduit profile (T and G)
- Excellent pullout strength
- Re-opening for safety reasons only possible with a screwdriver

5

N K N H - M 20 7 - 10



Connector Series



PMAFIX Pro



NKNH

straight . metric, metal



- Fitting: Specifically modified polyamide 6
- Thread: nickel-plated brass
- Sealing: crosslinked polyester elastomer
- IP68 and IP69K even in dynamic applications
- Self extinguishing
- Free from Halogens and cadmium
- Excellent impact strength

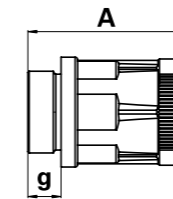
Temperature Range: -50°C to +105°C;

Short term: +160°C

Content of delivery: Fitting body with sealing element, thread seal

For applications with high technical requirements and in most demanding conditions.

Order No. Black	Thread Metric	Fits to conduit size		Thread Length	Overall Length
		NW	metric		
NKNH - M120 -10	M12x1.5	10	12 mm	10.0mm	45.0 mm
NKNH - M160 -10	M16x1.5	10	12 mm	10.0 mm	45.0 mm
NKNH - M162 -10	M16x1.5	12	16 mm	10.0 mm	50.5 mm
NKNH - M202 -10	M20x1.5	12	16 mm	10.0 mm	50.5 mm
NKNH - M207 -10	M20x1.5	17	20 mm	10.0 mm	56.0 mm
NKNH - M257 -11	M25x1.5	17	20 mm	11.0 mm	57.0 mm
NKNH - M253 -11	M25x1.5	23	25 mm	11.0 mm	59.5 mm
NKNH - M323 -13	M32x1.5	23	25 mm	13.0 mm	61.5 mm
NKNH - M329 -13	M32x1.5	29	32 mm	13.0 mm	67.0 mm
NKNH - M409 -13	M40x1.5	29	32 mm	13.0 mm	68.5 mm
NKNH - M406 -13	M40x1.5	36	40 mm	13.0 mm	74.0 mm
NKNH - M506 -14	M50x1.5	36	40 mm	14.0 mm	75.0 mm
NKNH - M508 -14	M50x1.5	48	50 mm	14.0 mm	81.0 mm
NKNH - M638 -14	M63x1.5	48	50 mm	14.0 mm	81.0 mm





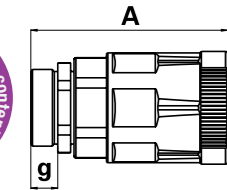
PMAFIX Pro

NKNZ

straight . strain relief metric metal



- Fitting: Specially modified polyamide 6
 - Thread: nickel-plated brass
 - Sealing: crosslinked polyester elastomer + Pflitsch sealing insert
 - **IP68 and P69K** even in dynamic applications
 - Due to the integrated Pflitsch insert, cables are held and at the same time sealed up to IP68 (10 bar).
 - Self-extinguishing
 - Free from halogens and cadmium
 - Excellent impact strength
- Temperature range:** -50°C to +105°C;
Short-term: +160°C
Temperature range sealing insert: -40°C to +135°C
Content of delivery: Fitting body with sealing element, thread seal



For applications with high technical requirements and in most demanding climate conditions like railway vehicle construction for carriage connections and heavy machine construction.

Order No. Black	Thread Metric	Fits to conduit size		Terminal range	Thread Length	Overall Length
		NW	metric			
NKNZ-M120/P1	M12x1.5	10	12	4.0 – 6.5	5	54
NKNZ-M120/P2	M12x1.5	10	12	5.0 – 8.0	5	54
NKNZ-M120/P3	M12x1.5	10	12	6.5 – 9.5	5	54
NKNZ-M160/P1	M16x1.5	10	12	4.0 – 6.5	6	55
NKNZ-M160/P2	M16x1.5	10	12	5.0 – 8.0	6	55
NKNZ-M160/P3	M16x1.5	10	12	6.5 – 9.5	6	55
NKNZ-M202/P1	M20x1.5	12	16	4.0 – 6.5	7	61
NKNZ-M202/P3	M20x1.5	12	16	6.5 – 9.5	7	61
NKNZ-M202/P4	M20x1.5	12	16	7.0 – 10.5	7	61
NKNZ-M207/P3	M20x1.5	17	20	6.5 – 9.5	7	66
NKNZ-M207/P4	M20x1.5	17	20	7.0 – 10.5	7	66
NKNZ-M207/P5	M20x1.5	17	20	9.0 – 13.0	7	66
NKNZ-M257/P5	M25x1.5	17	20	9.0 – 13.0	8	68
NKNZ-M257/P6	M25x1.5	17	20	11.5 – 15.5	8	68
NKNZ-M253/P5	M25x1.5	23	25	9.0 – 13.0	8	75
NKNZ-M253/P6	M25x1.5	23	25	11.5 – 15.5	8	75
NKNZ-M323/P2	M32x1.5	23	25	9.0 – 13.0	8	76
NKNZ-M323/P4	M32x1.5	23	25	14.0 – 18.0	8	76
NKNZ-M323/P5	M32x1.5	23	25	17.0 – 20.5	8	76
NKNZ-M329/P2	M32x1.5	29	32	14.0 – 18.0	8	83
NKNZ-M329/P3	M32x1.5	29	32	17.0 – 20.5	8	83
NKNZ-M329/P4	M32x1.5	29	32	20.0 – 25.0	8	83
NKNZ-M409/P1	M40x1.5	29	32	11.5 – 15.5	8	83
NKNZ-M409/P2	M40x1.5	29	32	14.0 – 18.0	8	83
NKNZ-M409/P3	M40x1.5	29	32	17.0 – 20.5	8	83
NKNZ-M409/P4	M40x1.5	29	32	20.0 – 25.0	8	83
NKNZ-M409/P5	M40x1.5	29	32	24.0 – 28.0	8	83
NKNZ-M406/P1	M40x1.5	36	40	20.0 – 25.0	10	90
NKNZ-M406/P2	M40x1.5	36	40	24.0 – 28.0	10	90
NKNZ-M506/P1	M50x1.5	36	40	27.0 – 32.0	10	90
NKNZ-M506/P3	M50x1.5	36	40	32.0 – 36.0	10	90
NKNZ-M508/P2	M50x1.5	48	50	32.0 – 36.0	10	100
NKNZ-M508/P3	M50x1.5	48	50	36.0 – 40.0	10	100
NKNZ-M638/P1	M63x1.5	48	50	35.0 – 40.0	10	100
NKNZ-M638/P2	M63x1.5	48	50	39.0 – 44.0	10	100



PMAFIX Pro

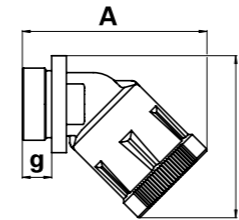


NKAH

45° elbow . metric . metal



- Fitting: Specially modified polyamide 6
 - Thread: nickel-plated brass
 - Sealing: crosslinked polyester elastomer
 - **IP68 and P69K** even in dynamic applications
 - Self-extinguishing
 - Free from halogens and cadmium
 - Excellent impact strength
- Temperature range:** -50 °C to +105 °C;
Short-term: +160 °C
Content of delivery: Fitting body with sealing element, thread seal



For applications with high technical requirements and in most demanding conditions.

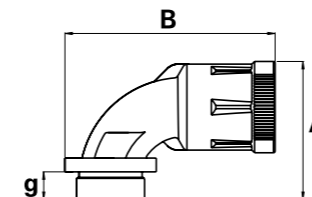
Order No. Black	Thread Metric	Fits to conduit size		Thread Length	Overall Length
		NW	metric		
NKAH-M120-10	M12x1.5	10	12	10.0	55.5 x 43.0
NKAH-M160-10	M16x1.5	10	12	10.0	55.5 x 45.0
NKAH-M162-10	M16x1.5	12	16	10.0	62.5 x 50.0
NKAH-M202-10	M20x1.5	12	16	10.0	62.5 x 52.0
NKAH-M207-10	M20x1.5	17	20	10.0	71.0 x 59.5
NKAH-M257-11	M25x1.5	17	20	11.0	72.0 x 62.5
NKAH-M253-11	M25x1.5	23	25	11.0	80.0 x 68.0
NKAH-M323-13	M32x1.5	23	25	13.0	82.0 x 72.0
NKAH-M329-13	M32x1.5	29	32	13.0	93.0 x 79.5
NKAH-M409-13	M40x1.5	29	32	13.0	94.5 x 85.5
NKAH-M406-13	M40x1.5	36	40	13.0	105.5 x 93.5
NKAH-M506-14	M50x1.5	36	40	14.0	106.5 x 98.5
NKAH-M508-14	M50x1.5	48	50	14.0	120.0 x 111.0
NKAH-M638-14	M63x1.5	48	50	14.0	120.0 x 114.0

NKBH

90° elbow . metric . metal



- Fitting: Specially modified polyamide 6
 - Thread: nickel-plated brass
 - Sealing: crosslinked polyester elastomer
 - **IP68 and P69K** even in dynamic applications
 - Self-extinguishing
 - Free from halogens and cadmium
 - Excellent impact strength
- Temperature range:** -50 °C to + 105 °C;
Short-term: +160 °C
Content of delivery: Fitting body with sealing element, thread seal



For applications with high technical requirements and in most demanding conditions.

Order No. Black	Thread Metric	Fits to conduit size		Thread Length	Overall Length
		NW	metric		
NKBH-M120-10	M12x1.5	10	12	10	44.0 x 62.5
NKBH-M160-10	M16x1.5	10	12	10	44.0 x 64.5
NKBH-M162-10	M16x1.5	12	16	10	47.5 x 72.0
NKBH-M202-10	M20x1.5	12	16	10	47.5 x 74.0
NKBH-M207-10	M20x1.5	17	20	10	53.0 x 81.0
NKBH-M257-11	M25x1.5	17	20	11	54.0 x 84.0
NKBH-M253-11	M25x1.5	23	25	11	63.0 x 92.0
NKBH-M323-13	M32x1.5	23	25	13	65.0 x 96.0
NKBH-M329-13	M32x1.5	29	32	13	75.0 x 108.0
NKBH-M409-13	M40x1.5	29	32	13	76.5 x 114.0
NKBH-M406-13	M40x1.5	36	40	13	87.5 x 126.0
NKBH-M506-14	M50x1.5	36	40	14	88.5 x 131.0
NKBH-M508-14	M50x1.5	48	50	14	101.0 x 145.5
NKBH-M638-14	M63x1.5	48	50	14	101.0 x 148.5



BKIHG

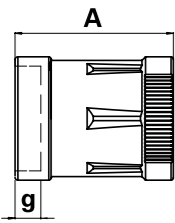
female thread adapter



- Fitting: Specially modified polyamide 6
- Sealing: crosslinked polyester elastomer
- IP68 and P69K even in dynamic applications
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

Temperature range: -50 °C to +105 °C;
Short-term: +160 °C

Content of delivery: Fitting body with sealing element, O-ring



For applications with high technical requirements and in most demanding conditions.



Order No. Black	Thread Metric	Shell Size	Fits to conduit size		Thread Length	Overall Length
			NW	metric		
BKIHG-U212	7/8"-20	16	12	16	9.0	47.0
BKIHG-U217	7/8"-20	16	17	20	9.0	52.5
BKIHG-U242	1"-20	18	12	16	9.0	47.0
BKIHG-U247	1"-20	18	17	20	9.0	52.5
BKIHG-U243	1"-20	18	23	23	9.0	55.5
BKIHG-U292	1 3/16"-18	20	12	16	9.0	50.5
BKIHG-U297	1 3/16"-18	20	17	20	9.0	52.5
BKIHG-U293	1 3/16"-18	20	23	25	9.0	55.5
BKIHG-U299	1 3/16"-18	20	29	32	9.0	61.0
BKIHG-U357	1 7/16"-18	24	17	20	9.0	58.0
BKIHG-U353	1 7/16"-18	24	23	25	9.0	55.5
BKIHG-U359	1 7/16"-18	24	29	32	9.0	61.0
BKIHG-U433	1 3/4"-18UNS	32	23	25	10.0	62.5
BKIHG-U439	1 3/4"-18UNS	32	29	32	10.0	62.0
BKIHG-U503	2"-18UNS	36	23	25	10.0	67.0
BKIHG-U509	2"-18UNS	36	29	32	10.0	67.5
BKIHG-U506	2"-18UNS	36	36	40	10.0	67.0
BKIHG-U508	2"-18UNS	36	48	50	10.0	73.5
BKIHG-U566	2 1/4"-16UNS	40	36	40	10.0	72.0
BKIHG-U568	2 1/4"-16UNS	40	48	50	10.0	73.5

NKIS

female thread adapter, metal



- Fitting: Specially modified polyamide 6
- Female thread: nickel-plated brass
- Sealing: crosslinked polyester elastomer
- IP68 and P69K on conduit side, even in dynamic applications
- Self-extinguishing
- Free from halogens and cadmium
- Excellent impact strength

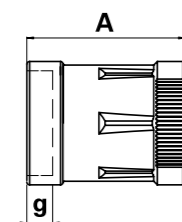
Temperature range: -50 °C to +105 °C;
Short-term: +160 °C

Content of delivery: Fitting body with sealing element

For applications with high technical requirements and in most demanding conditions.



Order No. Black	Thread Metric	Fits to conduit size		Thread Length	Overall Length
		NW	metric		
NKIS-M162	M16x1.5	12	16	9.0	49.0
NKIS-M207	M20x1.5	17	20	10.5	56.0
NKIS-M253	M25x1.5	23	25	10.5	58.5
NKIS-M329	M32x1.5	29	32	11.0	65.5
NKIS-M406	M40x1.5	36	40	13.5	72.0
NKIS-M508	M50x1.5	48	50	15.0	83.0
NKIS-M638	M63x1.5	48	50	17.5	84.0



Installation

IP 66



Universal clips afn2

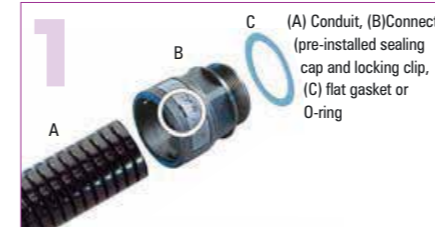
- Easy "push-in" installation
- Safety Clip AFN2 is pre-installed in IP66 connectors
- Fits any type of conduit profile (T and G)
- Compatible with PMAFIX product range, modes of ingress protection IP66 (straight, 90°, 45°, curved elbow, distributors)
- Excellent pullout strength
- Re-opening for safety reasons only possible with screwdriver

Installation IP66



Clip pre-installed in all IP66 connectors

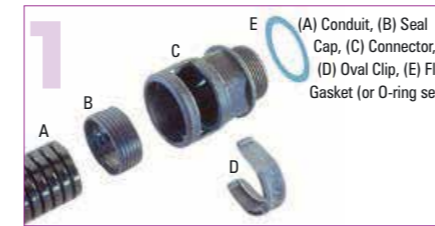
Installation IP68GT



Pre-installed sealing cap and locking clip in all IP68GT connectors

* For safety reasons, oval clip will not fit if seal cap is not fully installed. Ensure to follow O-ring manufacturers guidelines when using O-rings for sealing purposes.

Installation IP68 (IP69K)



* For safety reasons, oval clip will not fit if seal cap is not fully installed. Ensure to follow O-ring manufacturers guidelines when using O-rings for sealing purposes.



Code Reference

B V N D - M 20 7 GT

Clips

- GT = Universal Safety Clip
- = Oval clip

Nominal Width PMAFLEX

- 7 = Nominal Width

Size of thread

Code of Thread

- P = PG Thread
- M = Metric Thread
- F = Metric Fine Thread
- N = NPT Thread (USA)
- G = Gas Thread (Italy)
- U = UNEF Round Connector

Modes of ingress protection

- D = Self sealing IP66
- L = With Seal Cap IP67 on conduit
- R = With Seal Cap IP68 on conduit
- V = With Gasket reinforced IP68
- G = With Gasket reinforced IP68 with O-ring
- z = Add combined sealing strain relief IP50/IP68

PMAFIX Series

- N = Straight
- W = 90° elbow
- L = 90° elbow with female thread
- B = 90° curved elbow
- H = 90° curved elbow with female thread
- A = 45° elbow
- K = 45° curved elbow with female thread
- O = 90° elbow with flange
- I = With female thread
- Y = Y piece
- T = T piece
- V = V piece

PMA FIX type

- V = Reinforced
- S = Series V with swivelling coupler
- G = PMAGRIP lock technology

Colours

- B = Black
- S = Grey
- N = Black with metal thread
- M = Grey with metal thread
- A = Black - anthracite
- T = Transparent
- X = Special colour



PMA Connectors Metric, Polyamide

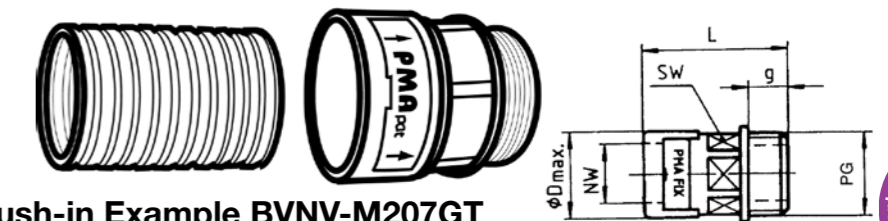
BVND & BVNV

These PMA connectors are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range:** -40°C to +105°
- Short term:** to +160°C
- Chemical Resistance:** To fuels, mineral oils, fats, alkalies weak acids and bases etc.
- IP66:** Fitting with pre-assembled universal safety clip (AFN2)
- IP68:** Fitting with oval clip(OVN2), conduit and thread seals (NVN3, SVN4)

Order No. IP66 Black	Order No. IP68 GT	Thread Metric	Fits to Conduit size		Thread Length	Overall Length
			NW	Metric		
BVND - M12MGT	BVNV - M12M	M12 x 1.5	7	10	11.0 mm	34.5 mm
BVND - M120GT	BVNV - M120	M12 x 1.5	10	12	11.0 mm	36.5 mm
BVND - M160GT	BVNV - M160	M16 x 1.5	10	12	11.0 mm	36.5 mm
BVND - M162GT	BVNV - M162	M16 x 1.5	12	16	11.0 mm	39.5 mm
BVND - M200GT	BVNV - M200	M20 x 1.5	10	12	11.0 mm	36.5 mm
BVND - M202GT	BVNV - M202	M20 x 1.5	12	16	11.0 mm	39.5 mm
BVND - M207GT	BVNV - M207	M20 x 1.5	17	20	11.0 mm	47.5 mm
BVND - M203GT	BVNV - M203	M20 x 1.5	23	25	11.0 mm	51.0 mm
BVND - M257GT	BVNV - M257	M25 x 1.5	17	20	12.0 mm	48.5 mm
BVND - M253GT	BVNV - M253	M25 x 1.5	23	25	12.0 mm	52.0 mm
BVND - M323GT	BVNV - M323	M32 x 1.5	23	25	15.0 mm	55.5 mm
BVND - M329GT	BVNV - M329	M32 x 1.5	29	32	15.0 mm	56.0 mm
BVND - M409GT	BVNV - M409	M40 x 1.5	29	32	19.0 mm	60.0 mm
BVND - M406GT	BVNV - M406	M40 x 1.5	36	40	19.0 mm	72.5 mm
BVND - M506GT	BVNV - M506	M50 x 1.5	36	40	19.0 mm	72.0 mm
BVND - M508GT	BVNV - M508	M50 x 1.5	48	50	19.0 mm	72.5 mm
BVND - M638GT	BVNV - M638	M63 x 1.5	48	50	19.0 mm	72.0 mm



GT Also available in IP68-GT Push-in Example BVNV-M207GT

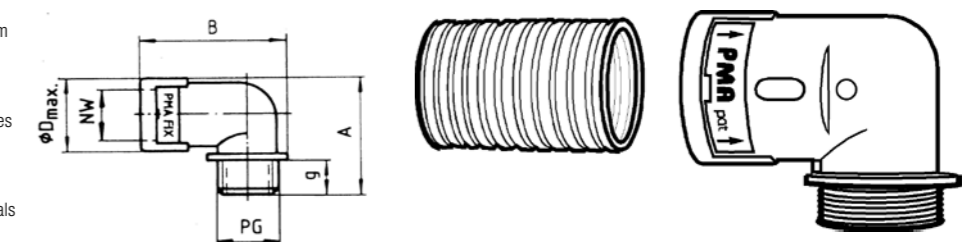
BVWD & BVWV 90°

These PMA connectors are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range:** -40°C to +105°
- Short term:** to +160°C
- Chemical Resistance:** To fuels, mineral oils, fats, alkalies weak acids and bases etc.
- IP66:** Fitting with pre-assembled universal safety clip (AFN2)
- IP68:** Fitting with oval clip(OVN2), conduit and thread seals (NVN3, SVN4)

Order No. IP66 Black	Order No. IP68 Black GT	Thread Metric	Fits to Conduit size		Thread Length	External Dimenmsions
			NW	Metric		
BVWD - M12MGT	BVWV - M12M	M12 x 1.5	7	10	11.0 mm	32.0 x 35.0 mm
BVWD - M120GT	BVWV - M120	M12 x 1.5	10	12	11.0 mm	34.0 x 39.5 mm
BVWD - M160GT	BVWV - M160	M16 x 1.5	10	12	11.0 mm	34.0 x 40.5 mm
BVWD - M162GT	BVWV - M162	M16 x 1.5	12	16	11.0 mm	38.5 x 46.0 mm
BVWD - M202GT	BVWV - M202	M20 x 1.5	12	16	11.0 mm	38.5 x 47.5 mm
BVWD - M207GT	BVWV - M207	M20 x 1.5	17	20	11.0 mm	43.5 x 58.5 mm
BVWD - M253GT	BVWV - M253	M25 x 1.5	23	25	12.0 mm	54.0 x 65.0 mm
BVWD - M329GT	BVWV - M329	M32 x 1.5	29	32	15.0 mm	64.5 x 73.0 mm
BVWD - M406GT	BVWV - M406	M40 x 1.5	36	40	19.0 mm	78.0 x 96.0 mm
BVWD - M508GT	BVWV - M508	M50 x 1.5	48	50	19.0 mm	91.5 x 106.0 mm



GT Also available in IP68-GT Push-in Example BVWV-M207GT



PMA Connectors Metric, Polyamide

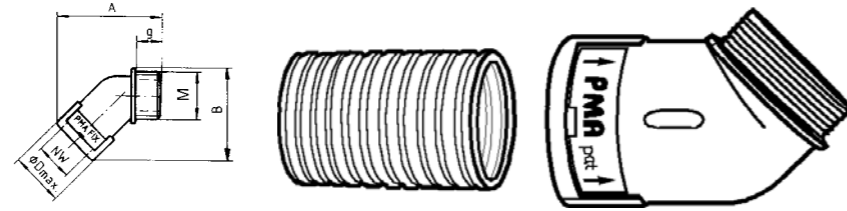
BVAD & BVAV 45°

These PMAFIX connectors are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



Order No. IP66 Black	Order No. GT IP68 Black	Thread Metric	Fits to Conduit size		Thread Length	External Dimensions
			NW	Metric		
BVAD - M120GT	-	M12 x 1.5	10	12	11.0 mm	43.5 x 37.0 mm
BVAD - M160GT	BVAV - M160	M16 x 1.5	10	12	11.0 mm	43.5 x 38.0 mm
BVAD - M162GT	BVAV - M162	M16 x 1.5	12	16	11.0 mm	48.0 x 40.0 mm
BVAD - M202GT	BVAV - M202	M20 x 1.5	12	16	11.0 mm	48.0 x 41.5 mm
BVAD - M207GT	BVAV - M207	M20 x 1.5	17	20	11.0 mm	55.5 x 51.5 mm
BVAD - M253GT	BVAV - M253	M25 x 1.5	23	25	12.0 mm	65.0 x 58.5 mm
BVAD - M329GT	BVAV - M329	M32 x 1.5	29	32	15.0 mm	73.0 x 66.5 mm
BVAD - M406GT	BVAV - M406	M40 x 1.5	36	40	19.0 mm	92.5 x 85.5 mm
BVAD - M506GT	BVAV - M506	M50 x 1.5	36	40	19.0 mm	100.0 x 89.5 mm
BVAD - M508GT	BVAV - M508	M50 x 1.5	48	50	19.0 mm	100.0 x 96.0 mm
BVAD - M638GT	BVAV - M638	M63 x 1.5	48	50	19.0 mm	100.0 x 104.0 mm

- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range: -40° C to +105° Short term to +160° C
- Scope of supply
- IP66: Distributor fitting with pre-assembled universal safety clip (AFN2)
- IP68: Distributor fitting with oval clip(OVN2), conduit seal (NVN3, SVN4)



GT Also available in IP68-GT Push-in Example BVAV-M207GT

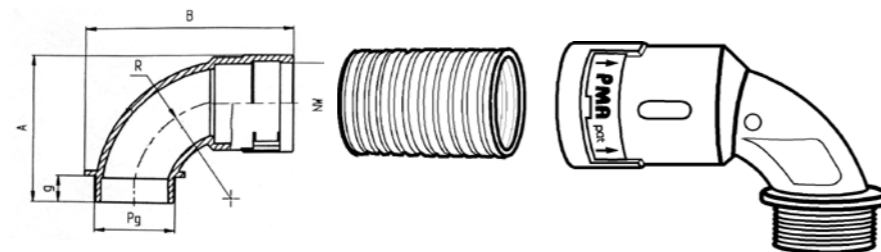
BVBD & BVBV 90°

These PMA connectors are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



Order No. IP66 Black	Order No. GT IP68 Black	Thread Metric	Fits to Conduit size		Thread Length	External Dimensions
			NW	Metric		
BVBD - M20GT	BVBV - M207	M20 x 1.5	17	20	11.0 mm	47.5 x 73.0 mm
BVBD - M257GT	BVBV - M257	M25 x 1.5	17	20	12.0 mm	48.5 x 76.0 mm
BVBD - M253GT	BVBV - M253	M25 x 1.5	23	25	12.0 mm	57.5 x 83.0 mm
BVBD - M323GT	BVBV - M323	M32 x 1.5	23	25	15.0 mm	61.0 x 87.5 mm
BVBD - M329GT	BVBV - M329	M32 x 1.5	29	32	15.0 mm	70.5 x 93.0 mm
BVBD - M409GT	BVBV - M409	M40 x 1.5	29	32	19.0 mm	74.5 x 98.5 mm
BVBD - M406GT	BVBV - M406	M40 x 1.5	36	40	19.0 mm	85.0 x 121.0 mm
BVBD - M506GT	BVBV - M506	M50 x 1.5	36	40	19.0 mm	85.0 x 125.0 mm
BVBD - M508GT	BVBV - M508	M50 x 1.5	48	50	19.0 mm	98.5 x 130.0 mm
BVAD - M638GT	BVBV - M638	M63 x 1.5	48	50	19.0 mm	98.5 x 138.0 mm

- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range: -40° C to +105° Short term to +160° C
- Scope of supply
- IP66: Distributor fitting with pre-assembled universal safety clip (AFN2)
- IP68: Distributor fitting with oval clip(OVN2), conduit seal (NVN3, SVN4)



GT Also available in IP68-GT Push-in Example BVBV-M207GT



PMA Connectors

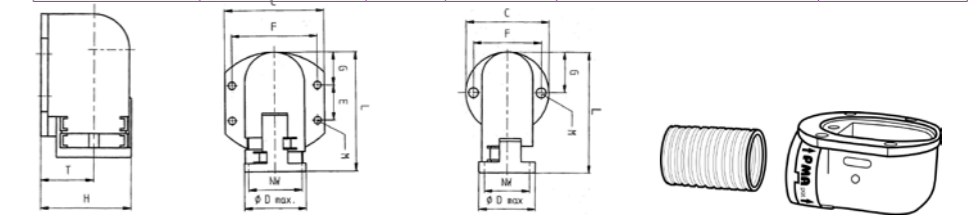
BVOD & BVOV 90°

These PMAFIX flanges are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



- Self sealing with cone IP66 static IP 54 dynamic with corresponding seal caps IP68 static IP67 dynamic high grade
- IP66: Fitting with pre-assembled universal safety clip (AFN2)
- IP68: Fitting with oval clip(OVN2), conduit seals (NVN3, OR)

Order No. IP66 Black	Order No. GT IP68 Black	Fits to Conduit size		Dimenmsions Width x Length x Depth	Screw sizes
		NW	Metric		
BVOD - P167GT	BVOV - P167	17	20	45.0 x 66.0 x 34.0 mm	2 x M5
BVOD - P213GT	BVOV - P213	23	25	63.0 x 70.0 x 42.0 mm	2 x M6
BVOD - P299GT	BVOV - P299	29	32	67.0 x 78.0 x 48.0 mm	4 x M6
BVOD - P366GT	BVOV - P366	36	40	85.0 x 102.0 x 64.0 mm	4 x M6
BVOD - P488GT	BVOV - P488	48	50	86.0 x 119.0 x 76.0 mm	4 x M6



GT Also available in IP68-GT Push-in Example BVOV-P167GT

BVID & BVIR

These PMAFIX female thread adapters offer a tension and vibration free connection and are generally used in machine and railway vehicle construction and they offer the highest grade of safety and excellent sealing with the corresponding connectors.

Excellent impact strength
VIR: IP68 static / IP67 dynamic, conduit side
VIR: IP66 static / IP54 dynamic, with cone



- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range: -40° C to +105° C
- Short term: to +160° C
- Scope of supply
- IP66: Distributor fitting with pre-assembled universal safety clip (AFN2)
- IP68: Distributor fitting with oval clip(OVN2), conduit seal (NVN3)

Order No. IP66 Black	Order No. GT IP68 Black	Thread metric	Fits to Conduit size		Thread Length	Overall Length
			NW	Metric		
BVID - M12MGT	-	M12 x 1.5	7	10	8.0 mm	32.0 mm
BVID - M160GT	BVIR - M160	M16 x 1.5	10	12	8.0 mm	33.5 mm
BVID - M162GT	BVIR - M162	M16 x 1.5	12	16	8.0 mm	36.5 mm
-	BVIR - M202	M20 x 1.5	12	16	8.0 mm	36.5 mm
BVID - M207GT	BVIR - M207	M20 x 1.5	17	20	8.0 mm	44.5 mm
BVID - M253GT	BVIR - M253	M25 x 1.5	23	25	8.0 mm	48.5 mm
-	BVIR - M257	M25 x 1.5	17	20	8.0 mm	44.5 mm
BVID - M329GT	BVIR - M329	M32 x 1.5	29	32	10.0 mm	51.5 mm
BVID - M406GT	BVIR - M406	M40 x 1.5	36	40	10.0 mm	65.5 mm
BVID - M508GT	BVIR - M508	M50 x 1.5	48	50	10.0 mm	65.5 mm

GT Also available in IP68-GT Push-in Example BVIR-M207GT

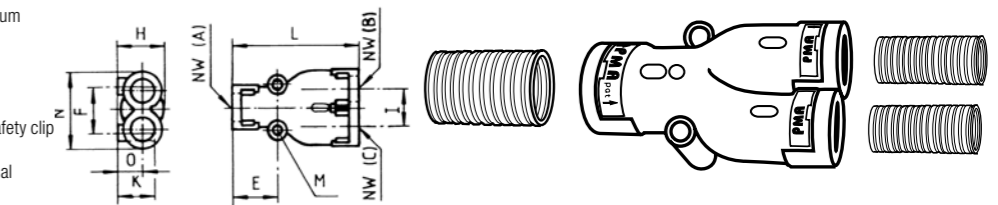
BVYD & BVYR

These PMAFIX Y-pieces are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range: -40° C to +105° C
- Short term: to +160° C
- Scope of supply
- IP66: Distributor fitting with pre-assembled universal safety clip (AFN2)
- IP68: Distributor fitting with oval clip (OVN2), conduit seal (NVN3, SVN4)

Order No. IP66 Black	Order No. GT IP68 Black	Input fits to Conduit size		Output fits to conduit size	
		NW	Metric	NW	Metric
BVYD - 100707GT	BVYR - 100707	10	12	7	10
BVYD - 121010GT	BVYR - 121010	12	16	10	12
BVYD - 1712120GT	BVYR - 171212	17	20	12	16
BVYD - 231717GT	BVYR - 231717	23	25	17	20
BVYD - 292323GT	BVYR - 292323	29	32	23	25
BVYD - 362929GT	BVYR - 362929	36	40	29	32
BVYD - 483636GT	BVYR - 483636	48	50	36	40



GT Also available in IP68-GT Push-in Example BVYR-171212GT



PMA Connectors

BVTD & BVTR

These PMAFIX T-pieces are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



Order No. IP66 Black	Order No. IP68 Black	Order No. GT IP68 Black GT	Input fits to conduit size		Output fits to conduit	
			NW	Metric	NW	Metric
BVTD - 101010GT	BVTR - 101010	BVTR - 101010GT	10	12	10	12
BVTD - 121212GT	BVTR - 121212	BVTR - 121212GT	12	16	12	16
BVTD - 171717GT	BVTR - 171717	BVTR - 171717GT	17	20	17	20
BVTD - 232323GT	BVTR - 232323	BVTR - 232323GT	23	25	23	25
BVTD - 292929GT	BVTR - 292929	BVTR - 292929GT	29	32	29	32
BVTD - 363636GT	BVTR - 363636	BVTR - 363636GT	36	40	36	40
BVTD - 484848GT	BVTR - 484848	BVTR - 484848GT	48	50	48	50

- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength

Temperature range: -40°C to +105° **Short term** to +160°C

Scope of supply

IP66: Distributor fitting with pre-assembled universal safety clip (AFN2)

IP67: Distributor fitting with oval clip(OVN2), conduit seal (NFN3)

IP68: Distributor fitting with oval clip(OVN2), conduit seal (NVN3)

GT Also available in IP68-GT Push-in Example BVTR-171717GT

5

BFVD & BFVL

These PMAFIX Y-pieces are used in a wide range of applications together with PMAFLEX conduits and offer the highest grade of safety and sealing.



Order No. IP66 Black	Order No. IP67 Black	Input fits to Conduit size		Output fits to conduit size	
		NW	Metric	NW	Metric
BFVD - 100707GT	BFVL - 100707	10	12	7	10
BFVD - 101010GT	BFVL - 101010	10	12	10	12
BFVD - 121010GT	BFVL - 121010	12	16	10	12
BFVD - 171010GT	BFVL - 171010	17	20	10	12
BFVD - 171212GT	BFVL - 171212	17	20	12	16
BFVD - 231717GT	BFVL - 231717	23	25	17	20

- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength

Temperature range: -40°C to +105°

Short term to +160°C

Scope of supply

IP66: Distributor fitting with pre-assembled universal safety clip (AFN2)

IP67: Distributor fitting with oval clip(OVN2), conduit seal (NFN3)

BVNDZ & BVNZ

These PMAFIX connectors are generally used in machine and railway vehicle construction together with PMAFLEX conduits and offer a high grade of safety. Due to the intergrated strain relief, cables are held and at the same time sealed up to IP68 (5 bar). Furthermore these connectors can especially be used where damp and dry areas need to be separated.



Order No. IP66 Black	Order No. GT IP68 Black	Thread metric	Fits to Conduit size		Terminal Range	Thread Length	Overall Length
			NW	Metric			
BVNDZ - M160GT	-	M16 x 1.5	10	12	5.0 – 10.0 mm	8.0 mm	62.0 mm
BVNDZ - M162GT	BVNZ - M162S	M16 x 1.5	12	16	5.0 – 10.0 mm	8.0 mm	62.0 mm
BVNDZ - M207GT	BVNZ - M207S	M20 x 1.5	17	20	8.0 – 13.0 mm	8.0 mm	71.5 mm
BVNDZ - M253GT	BVNZ - M253S	M25 x 1.5	23	25	11.0 – 17.0 mm	8.0 mm	81.0 mm
BVNDZ - M329GT	BVNZ - M329S	M32 x 1.5	29	32	15.0 – 21.0 mm	10.0 mm	85.0 mm
BVNDZ - M406GT	BVNZ - M406S	M40 x 1.5	36	40	19.0 – 28.0 mm	10.0 mm	116.5 mm
BVNDZ - M508GT	BVNZ - M508S	M50 x 1.5	48	50	27.0 – 35.0 mm	12.0 mm	120.5 mm
BVNDZ - M638GT	BVNZ - M638S	M63 x 1.5	48	50	32.0 – 42.0 mm	12.0 mm	120.5 mm

- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength

Temperature range: -40°C to +105° **Short term** to +160°C

Scope of supply

IP66: Distributor fitting with pre-assembled universal safety clip (AFN2)

IP68: Distributor fitting with oval clip(OVN2), conduit seal (NVN3)

GT Also available in IP68-GT Push-in Example BVNZ-M207GT



BVIDA

UNEf, for AMP CPC series



- High grade, specially formulated polyamide 6
- Very high impact resistance
- Suitable for the AMP connector series CPC
- Vibration proof connection to PMAFLEX conduits
- High conduit pull out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits both conduit profiles – fine (T) and course (G)

VIRA: IP68 static / IP67 dynamic, conduit side

VIDA: IP66 static / IP54 dynamic, conduit side

Temperature range: -40°C to +105 °C,

Short Term to +160°C

Content of delivery:

IP66: Fitting with pre assembled universal safety clips (AFN2)

IP68GT: Fitting with pre assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)

IP68: Fitting with oval clips (OVN2) conduit seal (NVN3)

For cable protection systems in a wide range of applications.

Order No. IP66 Black	Order No. IP68 Black	Thread UNEf	Input fits to Conduit size		Thread Length	Overall Length
			NW	Metric		
BVIDA - U15MGT	BVIRA - U15M	5/8"-24	7	10	8.0	31.5
BVIDA - U150GT	BVIRA - U150	5/8"-24	10	12	8.0	33.5
BVIDA - U152GT	BVIRA - U152	5/8"-24	12	16	8.0	36.5
BVIDA - U180GT	BVIRA - U180	3/4"-20	10	12	8.0	33.5
BVIDA - U182GT	BVIRA - U182	3/4"-20	12	16	8.0	36.5
BVIDA - U187GT	BVIRA - U187	3/4"-20	17	20	8.0	44.5
BVIDA - U232GT	BVIRA - U232	5/16"-20	12	16	8.0	38.5
BVIDA - U237GT	BVIRA - U237	5/16"-20	17	20	8.0	46.5
BVIDA - U233GT	BVIRA - U233	5/16"-20	23	25	8.0	48.5
BVIDA - U347GT	BVIRA - U347	1 3/8"-18	17	20	8.0	46.5
BVIDA - U343GT	BVIRA - U343	1 3/8"-18	23	25	8.0	48.5
BVIDA - U402GT	BVIRA - U402	1 5/8"-18	12	16	7.0	55.5
BVIDA - U407GT	BVIRA - U407	1 5/8"-18	17	20	7.0	61.5
BVIDA - U403GT	BVIRA - U403	1 5/8"-18	23	25	7.0	60.5

P68GT available. Please add "GT" after the order number.

5

BVIDB

UNEf, for SOURIAU UTG-6/ITT cannon trident



- High grade, specially formulated polyamide 6
- Very high impact resistance
- Suitable for the Souriau connector series UTG-6 - ITT
- Cannon Trident
- Vibration proof connection to PMAFLEX conduits
- High conduit pull out strength
- Very good chemical properties
- Free from halogens and cadmium
- Fits both conduit profiles – fine (T) and course (G)

VIRA: IP68 static / IP67 dynamic, conduit side

VIDA: IP66 static / IP54 dynamic, conduit side

Temperature range: -40°C to +105°C, **Short Term** to +160°C

Content of delivery:

IP66: Fitting with pre assembled universal safety clips (AFN2)

IP68GT: Fitting with pre assembled universal safety clips (AFN2) and conduit seal (NVN3-GT)

IP68: Fitting with oval clips (OVN2) conduit seal (NVN3)

For cable protection systems in a wide range of applications.

Order No. IP66 Black	Order No. IP68 Black	Thread UNEf	Input fits to Conduit size		Thread Length	Overall Length
			NW	Metric		
BVIDB - U162GT	BVIRB - U162	1 1/16"-24	12	16	4.0mm	43.5mm
BVIDB - U202GT	BVIRB - U202	1 3/16"-20	12	16	4.5mm	44.0mm
BVIDB - U232GT	BVIRB - U232	1 5/16"-20	12	16	4.5mm	49.0mm
BVIDB - U237GT	BVIRB - U237	1 5/16"-20	17	20	4.5mm	52.0mm
BVIDB - U267GT	BVIRB - U267	1 1/16"-18	17	20	4.5mm	52.0mm
BVIDB - U297GT	BVIRB - U297	1 3/16"-18	17	20	6.5mm	55.5mm
BVIDB - U293GT	BVIRB - U293	1 3/16"-18	23	25	6.5mm	52.0mm
BVIDB - U323GT	BVIRB - U323	1 5/16"-18	23	25	6.5mm	52.0mm
BVIDB - U357GT	BVIRB - U357	1 7/16"-18	17	20	6.5mm	58.5mm
BVIDB - U353GT	BVIRB - U353	1 7/16"-18	23	25	6.5mm	54.5mm
BVIDB - U359GT	BVIRB - U359	1 7/16"-18	29	32	6.5mm	50.5mm

P68GT available. Please add "GT" after the order number.

Back to contents Page

Back to contents Page



BVIDG & BVIVG

UNEf, for MIL C 5015



- High grade, specially formulated polyamide 6
- Very high impact resistance
- Suitable for the AMP connector series CPC
- Vibration proof connection to PMAFLEX conduits
- High conduit pull out strength
- Very good chemical properties
- Fits both conduit profiles – fine (T) and course (G)
- **VIVG:** IP68 static / IP67 dynamic, **conduit and thread side**
- **VIDA:** IP66 static / IP54 dynamic, **conduit and thread side**
- **Temperature range:** -40 °C to +105 °C,
- **Short Term:** to +160 °C
- **Content of delivery:**
- **IP66:** Fitting with pre assembled universal safety clips (AFN2), thread seal (OR)
- **IP68GT:** Fitting with pre assembled universal safety clips (AFN2) and conduit seal (NVN3-GT) Thread seal (O-ring)
- **IP68:** Fitting with oval clips (OVN2), conduit and thread seal (NVN3, OR)

For cable protection systems in a wide range of applications.

Order No. IP66 Black	Order No. IP68 Black	Thread UNEF	Input fits to Conduit size		Thread Length	Overall Length
			NW	Metric		
—	BVIVG - U152	5/8"-24	12	16	8.0mm	36.5mm
—	BVIVG - U187	3/4"-24	17	20	9.0mm	46.5mm
—	BVIVG - U210	7/8"-20	10	07	9.0mm	37.0mm
BVIDG - U212GT	BVIVG - U212	7/8"-20	12	16	9.0mm	38.5mm
BVIDG - U217GT	BVIVG - U217	7/8"-20	17	20	9.0mm	46.5mm
BVIDG - U242GT	BVIVG - U242	1"-20	12	16	9.0mm	40.5mm
—	BVIVG - U243	1"-20	23	25	9.0mm	55.0mm
BVIDG - U247GT	BVIVG - U247	1"-20	17	20	9.0mm	47.5mm
—	BVIVG - U292	1 3/16"-18	12	16	9.0mm	40.5mm
BVIDG - U293GT	BVIVG - U293	1 3/16"-18	23	25	9.0mm	46.5mm
BVIDG - U297GT	BVIVG - U297	1 3/16"-18	17	20	9.0mm	47.5mm
—	BVIVG - U299	1 3/16"-18	29	29	9.0mm	47.0mm
—	BVIVG - U352	1 7/16"-18	12	16	9.0mm	39.0mm
BVIDG - U353GT	BVIVG - U353	1 7/16"-18	23	25	9.0mm	52.0mm
—	BVIVG - U356	1 7/16"-18	36	40	9.0mm	63.0mm
BVIDG - U357GT	BVIVG - U357	1 7/16"-18	17	20	9.0mm	46.5mm
BVIDG - U359GT	BVIVG - U359	1 7/16"-18	29	29	9.0mm	52.0mm
BVIDG - U433GT	BVIG - U433	1 3/4"-18 UNS	23	25	10.0mm	52.0mm
BVIDG - U436GT	BVIG - U436	1 3/4"-18 UNS	36	40	10.0mm	62.5mm
—	BVIG - U437	1 3/4"-18 UNS	17	20	10.0mm	46.5mm
BVIDG - U439GT	BVIG - U439	1 3/4"-18 UNS	29	32	10.0mm	51.5mm
—	BVIG - U503	2"-18 UNS	23	25	10.0mm	51.5mm
—	BVIG - U503/01	2"-18 UNS	23	25	10.0mm	62.5mm
BVIDG - U506GT	BVIG - U506	2"-18 UNS	36	40	10.0mm	62.5mm
—	BVIG - U508	2"-18 UNS	48	50	10.0mm	64.5mm
BVIDG - U509GT	BVIG - U509	2"-18 UNS	29	32	10.0mm	55.0mm
—	BVIG - U563	2 1/4"-16 UN	23	25	10.0mm	51.0mm
BVIDG - U566GT	BVIG - U566	2 1/4"-16 UN	36	40	10.0mm	62.0mm
—	BVIG - U568	2 1/4"-16 UN	48	50	10.0mm	64.0mm
BVIDG - U569GT	BVIG - U569	2 1/4"-16 UN	29	32	10.0mm	51.0mm
—	BVIG - U628	2 1/4"-16 UN	48	50	10.0mm	64.0mm



PMA Connectors Metric, Metal

NVNV

straight, metric, metal



- High-grade formulated polyamide
- Thread made of nickel-plated brass
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength
- **Temperature range:** - 40 °C to +105 °C;
- **Short-term:** to +160 °C
- **Content of delivery:** Fitting with oval clips (OVN2), conduit and threadseal (NVN3, SVN4 or OR)

These PMAFIX connectors are generally used in the heavy machine and railway vehicle construction sectors, where increased demands are made of the system properties. Together with PMAFLEX conduits, these products offer the highest grade of safety and sealing.

Order No. IP68 Black	Thread metric	Fits to conduit size		Thread Length (g)	Overall Length (A)
		NW	metric		
NVNV-M120-10	M12x1.5	10	12	10.0 mm	40.0 mm
NVNV-M120-5	M12x1.5	10	12	5.0 mm	35.0 mm
NVNV-M160-10	M16x1.5	10	12	10.0 mm	40.0 mm
NVNV-M160-5	M16x1.5	10	12	5.0 mm	35.0 mm
NVNV-M162-10	M16x1.5	12	16	10.0 mm	43.0 mm
NVNV-M162-5	M16x1.5	12	16	5.0 mm	38.0 mm
NVNV-M202-10	M20x1.5	12	16	10.0 mm	43.0 mm
NVNV-M202-6	M20x1.5	12	16	6.0 mm	39.0 mm
NVNV-M207-10	M20x1.5	17	20	10.0 mm	51.0 mm
NVNV-M207-6	M20x1.5	17	20	6.0 mm	47.0 mm
NVNV-M257-11	M25x1.5	17	20	11.0 mm	52.0 mm
NVNV-M257-7	M25x1.5	17	20	7.0 mm	43.0 mm
NVNV-M253-11	M25x1.5	23	25	11.0 mm	54.0 mm
NVNV-M253-7	M25x1.5	23	25	7.0 mm	50.0 mm
NVNV-M323-13	M32x1.5	23	25	13.0 mm	56.0 mm
NVNV-M323-8	M32x1.5	23	25	8.0 mm	51.0 mm
NVNV-M329-13	M32x1.5	29	32	13.0 mm	57.3 mm
NVNV-M329-8	M32x1.5	29	32	8.0 mm	52.3 mm
NVNV-M409-13	M40x1.5	29	32	13.0 mm	57.3 mm
NVNV-M409-8	M40x1.5	29	32	8.0 mm	52.3 mm
NVNV-M406-13	M40x1.5	36	40	13.0 mm	71.4 mm
NVNV-M406-8	M40x1.5	36	40	8.0 mm	66.4 mm
NVNV-M506-14	M50x1.5	36	40	14.0 mm	72.4 mm
NVNV-M506-9	M50x1.5	36	40	9.0 mm	67.4 mm
NVNV-M508-14	M50x1.5	48	50	14.0 mm	72.4 mm
NVNV-M508-9	M50x1.5	48	50	9.0 mm	67.4 mm
NVNV-M638-14	M63x1.5	48	50	14.0 mm	72.4 mm
NVNV-M638-10	M63x1.5	48	50	10.0 mm	68.4 mm





PMA Connectors Metric, Metal

NVWV

90° elbow, metric, metal



- High-grade formulated polyamide
- Thread made of nickel-plated brass
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -40°C to +105°C;
Short-term: to +160°C
Content of delivery: Fitting with oval clips (OVN2), conduit and threadseal (NVN3, SVN4 or OR)

Curved elbows of type VB are available for sizes NW 17 to NW 48.

These PMAFIX connectors are generally used in the heavy machine and railway vehicle construction sectors, where increased demands are made of the system properties. Together with PMAFLEX conduits, these products offer the highest grade of safety and sealing.

Order No. IP68 Black	Thread metric	Fits to conduit size		Thread Length (g)	External dimensions
		NW	metric		
NVWV-M120-10	M12x1.5	10	12	10.0 mm	37.5 x 39.5 mm
NVWV-M120-5	M12x1.5	10	12	5.0 mm	32.5 x 39.5 mm
NVWV-M160-10	M16x1.5	10	12	10.0 mm	37.5 x 41.5 mm
NVWV-M160-5	M16x1.5	10	12	5.0 mm	32.5 x 41.5 mm
NVWV-M162-10	M16x1.5	12	16	10.0 mm	42.0 x 46.5 mm
NVWV-M162-5	M16x1.5	12	16	5.0 mm	37.0 x 46.5 mm
NVWV-M202-10	M20x1.5	12	16	10.0 mm	42.0 x 49.0 mm
NVWV-M202-6	M20x1.5	12	16	6.0 mm	38.0 x 49.0 mm
NVWV-M207-10	M20x1.5	17	20	10.0 mm	47.0 x 58.5 mm
NVWV-M207-6	M20x1.5	17	20	6.0 mm	43.0 x 58.5 mm
NVWV-M253-11	M25x1.5	23	25	11.0 mm	59.0 x 67.0 mm
NVWV-M253-7	M25x1.5	23	25	7.0 mm	55.0 x 67.0 mm
NVWV-M329-13	M32x1.5	29	32	13.0 mm	68.0 x 74.5 mm
NVWV-M329-8	M32x1.5	29	32	8.0 mm	63.0 x 74.5 mm
NVWV-M406-13	M40x1.5	36	40	13.0 mm	80.5 x 98.0 mm
NVWV-M406-8	M40x1.5	36	40	8.0 mm	75.5 x 98.0 mm
NVWV-M508-14	M50x1.5	48	50	14.0 mm	95.5 x 111.0 mm
NVWV-M508-9	M50x1.5	48	50	9.0 mm	90.5 x 111.0 mm
NVWV-M638-14	M63x1.5	48	50	14.0 mm	94.5 x 114.0 mm
NVWV-M638-10	M63x1.5	48	50	10.0 mm	90.5 x 114.0 mm



PMA Connectors Metric, Metal

NVBV

90° curved elbow, metric, metal



- High-grade formulated polyamide
- Thread made of nickel-plated brass
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -40°C to +105°C;
Short-term: to +160°C
Content of delivery: Fitting with oval clips (OVN2), conduit and threadseal (NVN3, SVN4 or OR)

These PMAFIX connectors are generally used in the heavy machine and railway vehicle construction sectors, where increased demands are made of the system properties. Together with PMAFLEX conduits, these products offer the highest grade of safety and sealing.

Order No. IP68 Black	Thread metric	Fits to conduit size		Thread Length (g)	External dimensions
		NW	metric		
NVBV-M207-10	M20x1.5	17	20	10.0 mm	51.0 x 72.5 mm
NVBV-M207-6	M20x1.5	17	20	6.0 mm	47.0 x 72.5 mm
NVBV-M257-11	M25x1.5	17	20	11.0 mm	52.0 x 76.0 mm
NVBV-M257-7	M25x1.5	17	20	7.0 mm	48.0 x 76.0 mm
NVBV-M253-11	M25x1.5	23	25	11.0 mm	62.5 x 85.0 mm
NVBV-M253-7	M25x1.5	23	25	7.0 mm	58.5 x 85.0 mm
NVBV-M323-13	M32x1.5	23	25	13.0 mm	64.5 x 89.0 mm
NVBV-M323-8	M32x1.5	23	25	8.0 mm	59.5 x 89.0 mm
NVBV-M329-13	M32x1.5	29	32	13.0 mm	74.0 x 94.5 mm
NVBV-M329-8	M32x1.5	29	32	8.0 mm	69.0 x 94.5 mm
NVBV-M409-13	M40x1.5	29	32	13.0 mm	75.5 x 100.5 mm
NVBV-M409-8	M40x1.5	29	32	8.0 mm	70.5 x 100.5 mm
NVBV-M406-13	M40x1.5	36	40	13.0 mm	86.5 x 123.0 mm
NVBV-M406-8	M40x1.5	36	40	8.0 mm	81.5 x 123.0 mm
NVBV-M506-14	M50x1.5	36	40	14.0 mm	87.5 x 130.0 mm
NVBV-M506-9	M50x1.5	36	40	9.0 mm	82.5 x 130.0 mm
NVBV-M508-14	M50x1.5	48	50	14.0 mm	100.5 x 135.0 mm
NVBV-M508-9	M50x1.5	48	50	9.0 mm	95.5 x 135.0 mm
NVBV-M638-10	M63x1.5	48	50	14.0 mm	100.5 x 138.0 mm
NVBV-M638-14	M63x1.5	48	50	10.0 mm	96.5 x 138.0 mm

5

5



NVAV

45° elbow, metric, metal



- High-grade formulated polyamide
- Thread made of nickel-plated brass
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Extremely high thread and system connection strength

Temperature range: -40°C to +105°C;
Short-term: to +160 °C
Content of delivery: Fitting with oval clips (OVN2), conduit and threadseal (NVN3, SVN4 or OR)

These PMAFIX connectors are generally used in the heavy machine and railway vehicle construction sectors, where increased demands are made of the system properties. Together with PMAFLEX conduits, these products offer the highest grade of safety and sealing.

Order No. IP68 Black	Thread metric	Fits to conduit size		Thread Length (g)	External dimensions
		NW	metric		
NVAV-M120-10	M12x1.5	10	12	10.0 mm	48.5 x 37.0 mm
NVAV-M120-5	M12x1.5	10	12	5.0 mm	43.5 x 37.0 mm
NVAV-M162-10	M16x1.5	12	16	10.0 mm	53.0 x 40.5 mm
NVAV-M162-5	M16x1.5	12	16	5.0 mm	48.0 x 40.5 mm
NVAV-M207-10	M20x1.5	17	20	10.0 mm	60.5 x 51.5 mm
NVAV-M207-6	M20x1.5	17	20	6.0 mm	56.5 x 51.5 mm
NVAV-M253-11	M25x1.5	23	25	11.0 mm	70.0 x 60.5 mm
NVAV-M253-7	M25x1.5	23	25	7.0 mm	66.0 x 60.5 mm
NVAV-M257-11	M25x1.5	17	20	11.0 mm	61.0 x 54.5 mm
NVAV-M323-13	M32x1.5	23	25	13.0 mm	72.0 x 64.5 mm
NVAV-M329-13	M32x1.5	29	32	13.0 mm	77.0 x 68.0 mm
NVAV-M329-8	M32x1.5	29	32	8.0 mm	72.0 x 68.0 mm
NVAV-M406-13	M40x1.5	36	40	13.0 mm	94.0 x 87.5 mm
NVAV-M406-8	M40x1.5	36	40	8.0 mm	89.0 x 87.5 mm
NVAV-M508-14	M50x1.5	48	50	14.0 mm	102.0 x 101.0 mm
NVAV-M508-9	M50x1.5	48	50	9.0 mm	97.0 x 101.0 mm
NVAV-M638-14	M63x1.5	48	50	14.0 mm	102.0 x 104.0 mm
NVAV-M638-10	M63x1.5	48	50	10.0 mm	98.0 x 104.0 mm

NVIR

metric, metal



- High-grade formulated polyamide, thread made of nickel-plated brass
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- VIR: IP68 static / IP67 dynamic, conduit side

Temperature range: -40°C to +105°C;
Short-term: to +160°C
Content of delivery: Fitting with oval clips (OVN2), conduit seal (NVN3)

These PMAFIX connectors with metal female thread are generally used in the machine and railway vehicle construction sectors, where increased demands are made of the system properties. Together with PMAFLEX conduits these products allow to achieve the highest grade of safety and sealing

Order No. IP68 Black	Thread metric	Fits to conduit size		Thread Length (g)	Overall Length
		NW	metric		
NVIR-M120	M12x1.5	10	12	7.5 mm	35.5 mm
NVIR-M160	M16x1.5	10	12	9.0 mm	40.5 mm
NVIR-M162	M16x1.5	12	16	9.0 mm	41.0 mm
NVIR-M207	M20x1.5	17	20	10.0 mm	50.0 mm
NVIR-M253	M25x1.5	23	25	10.0 mm	53.0 mm
NVIR-M329	M32x1.5	29	32	11.0 mm	55.0 mm
NVIR-M406	M40x1.5	36	40	13.0 mm	71.0 mm
NVIR-M508	M50x1.5	48	50	15.0 mm	73.0 mm
NVIR-M638	M63x1.5	48	50	17.5 mm	78.0 mm



PMA Connectors Metric, Metal

NVNZ

straight, metric, strain relief, metal



- High-grade specially formulated polyamide 6, thread made of nickel-plated brass, sealing inserts made from TPE-V
- Very high impact resistance
- With integrated strain relief and optimal ingress protection at the cable (up to IP68/10 bar)
- High thread and system connection strength
- Vibration-resistant connection to PMAFLEX conduits
- Easy assembly
- High conduit pull-out strength
- Very good chemical properties
- Polyamide free from halogens and cadmium
- Excellent impact strength
- Fits both conduit profiles – fine (1) and course (G)

Temperature range: -40°C to +105°C;
Short-term: to +160°C

Temperature range sealing insert Pfritsch: -40°C to +105°C; **Short-term:** to +160°C

Content of delivery:

IP68GT: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); sealing insert, O-ring (OR)

Fitting* Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); O-ring (OR)

IP68:

Complete: Fitting with oval clips (OVN2), sealing insert, conduit seal (NVN3), O-ring (OR)

Fitting* Fitting with oval clips (OVN2), conduit seal (NVN3), O-ring (OR)

For several conductors multiple sealing inserts are available (MDE)
 * = without insert

IP68GT available. Please replace "S" or "R" with GT

-MDE multiple sealing inserts are available for this product

-R/P version of fitting has to be used in combination with multiple sealing inserts

These PMAFIX connectors are generally used in the heavy machine and railway vehicle construction sectors, where increased demands are made of the system properties. Together with PMAFLEX conduits, these products offer the highest grade of safety and sealing.

Order No. IP68 Black	Thread metric	Fits to conduit size		Terminal Range	Thread Length (g)	External dimensions
		NW	metric			
NVNZ-M120S/P1	M12x1.5	10	12	4.0 - 6.5	5.0 mm	48.5 mm
NVNZ-M120S/P2	M12x1.5	10	12	5.0 - 8.0	5.0 mm	48.5 mm
NVNZ-M120S/P3	M12x1.5	10	12	6.5 - 9.5	5.0 mm	48.5 mm
NVNZ-M160S/P1	M16x1.5	10	12	4.0 - 6.5	6.0 mm	49.5 mm
NVNZ-M160S/P2	M16x1.5	10	12	5.0 - 8.0	6.0 mm	49.5 mm
NVNZ-M160S/P3	M16x1.5	10	12	6.5 - 9.5	6.0 mm	49.5 mm
NVNZ-M202S/P1	M20x1.5	12	16	4.0 - 6.5	6.0 mm	54 mm
NVNZ-M202S/P3	M20x1.5	12	16	6.5 - 9.5	6.0 mm	54 mm
NVNZ-M202S/P4	M20x1.5	12	16	7.0 - 10.5	6.0 mm	54 mm
NVNZ-M207S/P3	M20x1.5	17	20	6.5 - 9.5	6.5 mm	60 mm
NVNZ-M207S/P4	M20x1.5	17	20	7.0 - 10.5	6.5 mm	60 mm
NVNZ-M207S/P5	M20x1.5	17	20	9.0 - 13.0	6.5 mm	60 mm
NVNZ-M253S/P5	M25x1.5	23	25	9.0 - 13.0	7.5 mm	72.5 mm
NVNZ-M253S/P6	M25x1.5	23	25	11.5 - 15.5	7.5 mm	72.5 mm
NVNZ-M257S/P4	M25x1.5	17	20	7.0 - 10.0	7.5 mm	61.5 mm
NVNZ-M257S/P5	M25x1.5	17	20	9.0 - 13.0	7.5 mm	61.5 mm
NVNZ-M257S/P6	M25x1.5	17	20	11.5 - 15.5	7.5 mm	61.5 mm
NVNZ-M323S/P4	M32x1.5	23	25	14.0 - 18.0	8.0 mm	73.0 mm
NVNZ-M323S/P5	M32x1.5	23	25	17.0 - 20.5	8.0 mm	73.0 mm
NVNZ-M329S/P2	M32x1.5	29	32	14.0 - 18.0	8.0 mm	73.0 mm
NVNZ-M329S/P3	M32x1.5	29	32	17.0 - 20.5	8.0 mm	73.0 mm
NVNZ-M329S/P4	M32x1.5	29	32	20.0 - 25.0	8.0 mm	73.0 mm
NVNZ-M406S/P1	M40x1.5	36	40	20.0 - 25.0	9.0 mm	87.0 mm
NVNZ-M406S/P2	M40x1.5	36	40	24.0 - 28.0	9.0 mm	87.0 mm
NVNZ-M409S/P1	M40x1.5	29	32	11.5 - 15.5	8.0 mm	73.0 mm
NVNZ-M409S/P2	M40x1.5	29	32	14.0 - 18.0	8.0 mm	73.0 mm
NVNZ-M409S/P3	M40x1.5	29	32	17.0 - 20.5	8.0 mm	73.0 mm
NVNZ-M409S/P4	M40x1.5	29	32	20.0 - 25.0	8.0 mm	73.0 mm
NVNZ-M409S/P5	M40x1.5	29	32	24.0 - 28.0	8.0 mm	73.0 mm
NVNZ-M506S/P1	M50x1.5	36	40	27.0 - 32.0	9.0 mm	89.5 mm
NVNZ-M506S/P3	M50x1.5	36	40	32.0 - 36.0	9.0 mm	89.5 mm
NVNZ-M508S/P2	M50x1.5	48	50	32.0 - 36.0	9.0 mm	92.0 mm
NVNZ-M508S/P3	M50x1.5	48	50	36.0 - 40.0	9.0 mm	92.0 mm
NVNZ-M638S/P1	M63x1.5	48	50	32.0 - 35.0	10.0 mm	90.5 mm
NVNZ-M638S/P2	M63x1.5	48	50	39.0 - 44.0	10.0 mm	90.5 mm



PMA Connectors Metric, Metal

NVNZ

straight, metric, strain relief, metal



- High-grade, specially formulated polyamide 6, thread made of nickel plated brass, sealing inserts are made from TPE-V
- Very high impact resistance
- With integrated strain relief and optimal ingress protection at the cable (up to IP68/10 bar)
- High thread and system connection strength
- Vibration resistant connection to PMAFLEX conduits
- Easy assembly
- High conduit pull-out strength
- Very good chemical properties
- Polyamide free from halogens and cadmium
- Excellent impact strength
- Fits both conduit profiles - fine (1) and course (G)

Temperature range: -40°C to +105°C;
Short term: to +160°C

Temperature range sealing insert Pfritsch: -40°C to +135°C

Content of delivery:

Complete: Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); sealing insert, O-ring (OR)

Fitting* Fitting with pre-assembled universal safety clips (AFN2) and conduit seal (NVN3-GT); O-ring (OR)

IP68:

Complete Fitting with oval clips (OVN2), sealing insert, conduit seal (NVN3), O-ring (OR)

Fitting* Fitting with oval clips (OVN2), conduit seal (NVN3), O-ring (OR)

For several conductors multiple sealing inserts are available (NDE)

In railway vehicle and heavy machine construction. For separation of damp and dry areas.

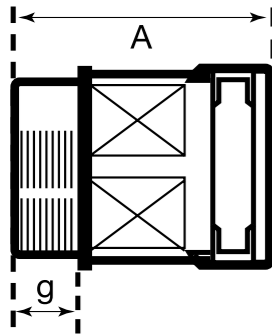
Order No. Black	Thread Metric	Fits to conduit size		Terminal Range	Thread Length (g)	Overall Length (A)
		NW	Metric			
NVNZ-M120S/P1-L	M12x1.5	10	12	4.0 - 6.5	15 mm	66.5 mm
NVNZ-M160S/P1-L	M16x1.5	10	12	6.5 - 9.5	15 mm	58.5 mm
NVNZ-M160S/P2-L	M16x1.5	10	12	4.0 - 6.5	15 mm	58.5 mm
NVNZ-M160S/P3-L	M16x1.5	10	12	5.0 - 8.0	15 mm	58.5 mm
NVNZ-M202S/P1-L	M20x1.5	12	16	6.5 - 9.5	15 mm	62.5 mm
NVNZ-M202S/P3-L	M20x1.5	12	16	4.0 - 6.5	15 mm	62.5 mm
NVNZ-M202S/P4-L	M20x1.5	12	16	6.5 - 9.5	15 mm	62.5 mm
NVNZ-M207S/P3-L	M20x1.5	17	20	7.0 - 10.5	15 mm	68.5 mm
NVNZ-M207S/P4-L	M20x1.5	17	20	6.5 - 9.5	15 mm	68.5 mm
NVNZ-M207S/P5-L	M20x1.5	17	20	7.0 - 10.5	15 mm	68.5 mm
NVNZ-M257S/P5-L	M20x1.5	17	20	9.0 - 13.0	15 mm	69.0 mm
NVNZ-M257S/P6-L	M20x1.5	17	20	9.0 - 13.0	15 mm	69.0 mm
NVNZ-M323S/P4-L	M32x1.5	23	25	11.5 - 15.5	15 mm	80.0 mm
NVNZ-M323S/P5-L	M32x1.5	23	25	14.0 - 18.0	15 mm	80.0 mm
NVNZ-M329S/P2-L	M32x1.5	29	32	17.0 - 20.5	15 mm	91.0 mm
NVNZ-M329S/P3-L	M32x1.5	29	32	14.0 - 18.0	15 mm	91.0 mm
NVNZ-M409S/P3-L	M40x1.5	29	32	17.0 - 20.5	15 mm	80.0 mm
NVNZ-M409S/P4-L	M40x1.5	29	32	17.0 - 20.5	15 mm	80.0 mm
NVNZ-M409S/P5-L	M40x1.5	29	32	20.0 - 25.0	15 mm	80.0 mm
NVNZ-M506S/P1-L	M50x1.5	36	40	24.0 - 28.0	15 mm	94.5 mm
NVNZ-M506S/P3-L	M50x1.5	36	40	27.0 - 32.0	15 mm	94.5 mm
NVNZ-M508S/P2-L	M50x1.5	48	50	32.0 - 36.0	15 mm	97.0 mm
NVNZ-M508S/P3-L	M50x1.5	48	50	32.0 - 36.0	15 mm	97.0 mm
NVNZ-M638S/P1-L	M63x1.5	48	50	36.0 - 40.0	15 mm	95.5 mm
NVNZ-M638S/P2-L	M63x1.5	48	50	32.0 - 35.0	15 mm	95.5 mm
NVNZ-M638S/P2-L	M63x1.5	48	50	39.0 - 44.0	15 mm	95.5





PMA Smart Line

ALND



The Smart-Line connectors are generally used in the machine building, installation and construction industries.

Order No. IP66 Black	Thread metric	Fits to conduit size		Thread Length (g)	Overall Length (A)
		NW	metric		
ALND-M120	M12 x 1.5	10	12	11.0 mm	34.0 mm
ALND-M160	M16 x 1.5	10	12	11.0 mm	34.0 mm
ALND-M162	M16 x 1.5	12	16	11.0 mm	38.0 mm
ALND-M202	M20 x 1.5	12	16	11.0 mm	38.0 mm
ALND-M207	M20 x 1.5	17	20	11.0 mm	41.0 mm
ALND-M257	M25 x 1.5	17	20	12.0 mm	42.0 mm
ALND-M253	M12 x 1.5	23	25	12.0 mm	45.5 mm
ALND-M323	M32 x 1.5	23	25	15.0 mm	48.5 mm
ALND-M329	M32 x 1.5	29	32	15.0 mm	50.5 mm
ALND-M409	M40 x 1.5	29	32	19.0 mm	54.5 mm
ALND-M406	M40 x 1.5	36	40	19.0 mm	60.5 mm
ALND-M506	M50 x 1.5	36	40	19.0 mm	61.0 mm
ALND-M508	M50 x 1.5	48	50	19.0 mm	61.0 mm
ALND-M638	M63 x 1.5	48	50	19.0 mm	61.0 mm

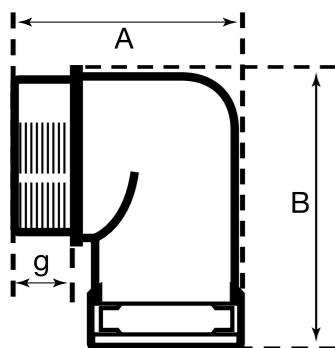
- Specifically modified polyamide
 - IP66 - One piece fitting with integral cone seal
 - Self Extinguishing, free of halogen & cadmium
 - Excellent impact strength
- Temperature range:** -40°C to +105°C;
Short Term: to +150°C
Content of Delivery: Fitting body with preinstalled retaining elements



5



ALWD 90°



The Smart-Line connectors are generally used in the machine building, installation and construction industries.

Order No. IP66 Black	Thread metric	Fits to conduit size		Thread Length (g)	Overall Length (A)
		NW	metric		
ALWD-M120	M12 x 1.5	10	12	11.0 mm	32.5 x 36.5 mm
ALWD-M160	M16 x 1.5	10	12	11.0 mm	32.5 x 38.5 mm
ALWD-M162	M16 x 1.5	12	16	11.0 mm	36.5 x 43.0 mm
ALWD-M202	M20 x 1.5	12	16	11.0 mm	36.5 x 45.0 mm
ALWD-M207	M20 x 1.5	17	20	11.0 mm	41.0 x 50.5 mm
ALWD-M257	M25 x 1.5	17	20	12.0 mm	42.0 x 53.0 mm
ALWD-M253	M12 x 1.5	23	25	12.0 mm	52.0 x 59.0 mm
ALWD-M323	M32 x 1.5	23	25	15.0 mm	55.5 x 62.5 mm
ALWD-M329	M32 x 1.5	29	32	15.0 mm	61.5 x 69.0 mm
ALWD-M409	M40 x 1.5	29	32	19.0 mm	65.5 x 72.0 mm
ALWD-M406	M40 x 1.5	36	40	19.0 mm	76.0 x 83.0 mm
ALWD-M506	M50 x 1.5	36	40	19.0 mm	76.0 x 87.0 mm
ALWD-M508	M50 x 1.5	48	50	19.0 mm	89.0 x 92.5 mm
ALWD-M638	M63 x 1.5	48	50	19.0 mm	89.0 x 99.0 mm

- Specifically modified polyamide
 - IP66 - One piece fitting with integral cone seal
 - Self Extinguishing, free of halogen & cadmium
 - Excellent impact strength
- Temperature range:** -40°C to +105°C;
Short Term: +150°C
Content of Delivery: Fitting body with preinstalled retaining elements



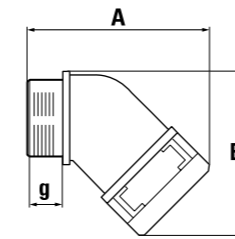
296



PMA Connectors



ALAD 45°



The Smart-Line connectors are generally used in the machine building, installation and construction industries.

Order No. IP66 Black	Thread metric	Fits to conduit size		Thread Length (g)	Overall Length (A)
		NW	metric		
ALAD-M120	M12 x 1.5	10	12	11.0 mm	32.5 x 36.5 mm
ALAD-M160	M16 x 1.5	10	12	11.0 mm	32.5 x 38.5 mm
ALAD-M162	M16 x 1.5	12	16	11.0 mm	36.5 x 43.0 mm
ALAD-M202	M20 x 1.5	12	16	11.0 mm	36.5 x 45.0 mm
ALAD-M207	M20 x 1.5	17	20	11.0 mm	41.0 x 50.5 mm
ALAD-M257	M25 x 1.5	17	20	12.0 mm	42.0 x 53.0 mm
ALAD-M253	M12 x 1.5	23	25	12.0 mm	52.0 x 59.0 mm
ALAD-M323	M32 x 1.5	23	25	15.0 mm	55.5 x 62.5 mm
ALAD-M329	M32 x 1.5	29	32	15.0 mm	61.5 x 69.0 mm
ALAD-M409	M40 x 1.5	29	32	19.0 mm	65.5 x 72.0 mm
ALAD-M406	M40 x 1.5	36	40	19.0 mm	87.5 x 78.0 mm
ALAD-M506	M50 x 1.5	36	40	19.0 mm	88.0 x 82.0 mm
ALAD-M508	M50 x 1.5	48	50	19.0 mm	97.5 x 88.0 mm
ALAD-M638	M63 x 1.5	48	50	19.0 mm	97.5 x 94.5 mm

- Specifically modified polyamide
 - IP66 - One piece fitting with integral cone seal
 - Self Extinguishing, free of halogen & cadmium
 - Excellent impact strength
- Temperature range:** -40°C to +105°C;
Short Term: +150°C
Content of Delivery: Fitting body with preinstalled retaining elements

5



297



PMA Connectors

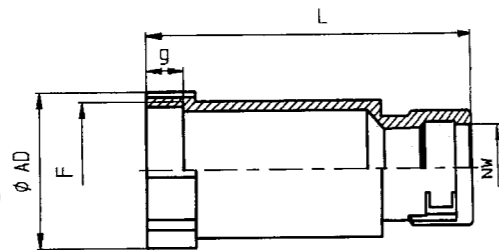
TFIL

These PMAFIX female thread adapters offer a tension and vibration free connection and are generally used in machine and railway vehicle construction in connection with electronic sensors. Furthermore, these products offer the highest grade of safety and excellent sealing with the corresponding sensors.



- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- FIL:** IP67 static / IP65 dynamic, conduit side
- Temperature range:** -40°C to +105°C
- Short term:** to 160°C
- Scope of supply:** Fitting with oval clip(OVN2), conduit seal (NFN3)

Order No. IP 67 Clear	Thread fine-metric	Fits to Conduit size		Thread Length	Overall Length
		NW	Metric		
TFIL - F08M	8	7	10	6.5 mm	30.0 mm
TFIL - F12M	12	7	10	6.5 mm	56.0 mm
TFIL - F120	12	10	12	6.5 mm	57.0 mm
TFIL - F18M	18	7	10	6.5 mm	57.0 mm
TFIL - F180	18	10	12	6.5 mm	57.0 mm
TFIL - F30M	30	7	10	6.5 mm	57.0 mm
TFIL - F300	30	10	12	6.5 mm	57.0 mm



5

BVSGD & BVSGR

Coupling used for extensions to avoid wastage



- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range:** -40°C to +105°C **Short term** to +160°C
- Scope of supply**
- IP66:** Distributor fitting with pre-assembled universal safety clip (AFN2)
- IP68:** Distributor fitting with oval clip(OVN2), conduit seal (NVN3)

Order No. IP66 Black	Order No. IP68 Black	Fits to Conduit size		Outside Diameter	Overall Length
		NW	Metric		
BVSGD - 1212GT	BVSGR - 1212	12	16	23.5 mm	66.0 mm
BVSGD - 1717GT	BVSGR - 1717	17	20	30.0 mm	89.0 mm
BVSGD - 2323GT	BVSGR - 2323	23	25	37.0 mm	103.0 mm
BVSGD - 2929GT	BVSGR - 2929	26	32	44.0 mm	100.0 mm
BVSGD - 3636GT	BVSGR - 3636	36	40	53.0 mm	130.0 mm
BVSGD - 4848GT	BVSGR - 4848	48	50	61.0 mm	136.0 mm

BAVD & BAVR

Adapter to be used in conjunction, e.g. Y&T pieces to reduce hole size for different sized conduit



- High grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range:** -40°C to +105°C
- Short term** to +160°C
- Scope of supply**
- IP66:** Distributor fitting with pre-assembled universal safety clip (AFN2)
- IP68:** Distributor fitting with oval clip(OVN2), conduit seal (NVN3)

Order No. IP66 Black	Order No. IP68 Black	Input fits to Conduit size		Output fits to Conduit size		Overall Length
		NW	Metric	NW	Metric	
BAVD - 10/07GT	BAVR - 10/07	10	12	07	10	43.0mm
BAVD - 12/10GT	BAVR - 12/10	12	16	10	12	46.0 mm
BAVD - 17/10GT	BAVR - 17/10	17	20	10	12	53.0 mm
BAVD - 17/12GT	BAVR - 17/12	17	20	12	16	54.0 mm
BAVD - 23/10GT	BAVR - 23/10	23	25	10	12	54.0 mm
BAVD - 23/12GT	BAVR - 23/12	23	25	12	16	53.0 mm
BAVD - 23/17GT	BAVR - 23/17	23	25	17	20	62.0 mm
BAVD - 29/10GT	BAVR - 29/10	29	32	10	12	56.5 mm
BAVD - 29/12GT	BAVR - 29/12	29	32	12	16	55.0 mm
BAVD - 29/17GT	BAVR - 29/17	29	32	17	20	61.0 mm
BAVD - 29/23GT	BAVR - 29/23	29	32	23	25	64.0 mm
BAVD - 36/29GT	BAVR - 36/29	36	40	29	32	81.0 mm
BAVD - 48-36GT	BAVR - 48/36	48	50	36	40	88.5mm



PMA Supports

BFH - 0

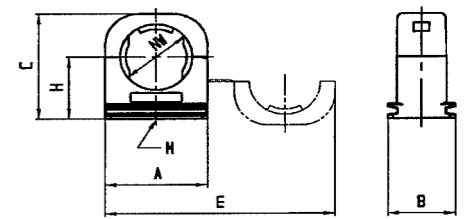
one piece system supports



The one-piece PMACLIP system support is designed for PMAFLEX conduit. This product can be used in all machine and installation applications for easy assembly of the PMA system.

Order No. Black	Conduit size NW	Conduit size Metric	Dimensions Length	Fixing Screw
BFH - 07 - 0	7	10	17.0 x 21.5 x 20.0 mm	1 x M4
BFH - 10 - 0	10	12	20.5 x 24.5 x 20.0 mm	1 x M5
BFH - 12 - 0	12	16	24.0 x 27.0 x 20.0 mm	1 x M5
BFH - 17 - 0	17	20	30.0 x 34.0 x 20.0 mm	1 x M6
BFH - 23 - 0	23	25	38.5 x 42.0 x 20.0 mm	1 x M6
BFH - 29 - 0	29	32	45.5 x 48.0 x 20.0 mm	1 x M6
BFH - 36 - 0	36	40	55.5 x 56.0 x 20.0 mm	1 x M6
BFH - 48 - 0	48	50	67.5 x 68.0 x 20.0 mm	1 x M6

- High-grade formulated polyamide
- Self extinguishing, free of halogen, phosphor and cadmium
- Excellent impact strength
- Temperature range:** -40°C to +105°C
- Short term** to +160°C



5

BGPS

one-piece system supports



They are specially designed for increased mechanical requirements in the traction and heavy machine building industries. The one-piece system offers for an easy pre-mounting and final assembly, fixation on standard rails type C and strain relief due to gripping around the conduit. In addition these products are partially stackable.

Order No. Black	Fits to conduit size			Dimensions Width	Dimensions Height	Dimensions Depth
	NW	metric	DIN-NW			
BGPS-17	17	20	2	70.0 mm	45.0 mm	30.0 mm
BGPS-23	23	25	2	70.0 mm	45.0 mm	30.0 mm
BGPS-29	29	32	3	85.0 mm	60.0 mm	30.0 mm
BGPS-36	36	40	3	85.0 mm	60.0 mm	30.0 mm
BGPS-48	48	50	4	115.0 mm	90.0 mm	30.0 mm
BGPS-56	56	-	4	115.0 mm	90.0 mm	30.0 mm

- High-grade formulated polyamide
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Clasp for easy pre-mounting and final assembly
- Useable with standard rails type C
- The following nominal widths can be combined for stacking: NW 17 with NW 23, NW 29 with NW 36, NW 48 with NW 56**
- Temperature range:** - 40°C to +105°C; **Short-term** +160°C
- Content of delivery:** System support and 2 pcs screws for securing of the lid (optional); without mounting accessories

BGP

system supports for stacking



These stackable system supports are specially designed for increased mechanical requirements in the traction industry. The system offers different fixation possibilities, strain relief due to gripping around the conduit and is especially suitable for dynamic applications due to rounded edges.

Order No. Black	Fits to conduit size		Dimensions Height	Dimensions Width	Dimensions Depth
	NW	metric			
BGP-16G	17	20	47.5 mm	66.0 mm	36.0 mm
BGP-21G	23	25	47.5 mm	66.0 mm	36.0 mm
BGP-29G	29	32	61.5 mm	66.0 mm	36.0 mm
BGP-36G	36	40	61.5 mm	66.0 mm	36.0 mm
BGP-48G	48	50	76.0 mm	66.0 mm	36.0 mm
BGP-56G	56	-	87.0 mm	78.0 mm	36.0 mm

- High-grade formulated polyamide
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- High stiffness in stackable configuration
- Temperature range:** - 40°C to +105°C; **Short-term** to +160°C
- Content of delivery:** System support with assembling screws; without mounting accessories



PMA Support & Protection Sleeves

SGB

tube clamp



The PMA CLAMPS are used for the mounting and smooth connection to the PMA conduits in general machine and installation constructions. They are especially suitable for the mounting of static conduits.

Order No. Black	Fits to Conduit size		Dimensions Width	Fixing Screw
	NW	Metric		
SGB - 07	7	10	13.0 mm	1 x M4
SGB - 09	10	12	13.0 mm	1 x M4
SGB - 11	12	16	13.0 mm	1 x M4
SGB - 16	17	20	16.0 mm	1 x M5
SGB - 21	23	25	16.0 mm	1 x M5
SGB - 29	29	32	19.0 mm	1 x M6
SGB - 36	36	40	19.0 mm	1 x M6
SGB - 48	48	50	19.0 mm	1 x M6

- Galvanised steel according to DIN 3016
- Elastomer free of halogen
- Temperature range:** -50°C to +105°C
- Short term:** to +160°C
- Chemical Resistance:** Very good weather, ozone, and ageing resistance. Resistance to mineral oils and fats.

5

RKS

conduit terminal sleeve



These cylindrical terminal sleeves offer a proper conduit termination and are used at the end of conduits where no connectors with threads are necessary. They avoid the damage of cable isolations through sharp cutting edges on the conduit.

Order No. Black	Fits to conduit		Inside Diameter	Outside Diameter	Dimensions Length
	size NW	size metric			
RKS-07	7	10	4.5 mm	12.5 mm	16.0 mm
RKS-10	10	12	8.0 mm	15.5 mm	16.0 mm
RKS-12	12	16	10.0 mm	19.0 mm	20.0 mm
RKS-17	17	20	13.0 mm	24.0 mm	21.0 mm
RKS-23	23	25	20.0 mm	32.0 mm	22.0 mm
RKS-29	29	32	25.0 mm	38.0 mm	20.0 mm
RKS-36	36	40	33.4 mm	46.0 mm	25.0 mm
RKS-48	48	50	45.0 mm	58.0 mm	25.0 mm
RKS-56	56	63	54.0 mm	71.0 mm	28.0 mm

- Specially modified polyamide self-extinguishing, free from halogens and cadmium
- Temperature range:** -40°C to +105°C
- Short-term to +160°C**

BSS/BSV

abrasion protection sleeve



The main area of application of these sleeves is in robotic and automation systems, where protection against chafing through continual movement is needed. Due to excellent chafing properties, these products can be used for different applications, as an abrasion protection sleeve, a connector sleeve or a repair sleeve.

Order No. Black	Fits to conduit		Outside Diameter	Dimensions Length
	size NW	size metric		
BSS-17	17	20	42.0 mm	22.0 mm
BSS-23	23	25	49.0 mm	26.0 mm
BSS-29	29	32	55.0 mm	26.0 mm
BSS-36	36	40	63.0 mm	30.0 mm
BSS-48	48	50	75.0 mm	30.0 mm
BSS-56G	56	-	90.0 mm	33.0 mm
BSV-70G	70	-	108.0 mm	60.0 mm

- Specially modified polyamide
- Very good chafing properties
- Self-extinguishing, free from halogens and cadmium**
- Temperature range:** -40°C to 105°C

Short-term: to +160 °C
Content of delivery: Abrasion protection sleeves with assembling screws

Lock Nuts

Locknut Nylon



- Material: PA
- Operating: -40°C to +100°C (-40°F to +212°F)
- Temperature: Short time exposure 120°C (248°F)

Metric

Article number	Article designation / size	SW wrench size mm	Pieces / PU
SKINTOP® GMP-GL-M silver grey			
53119000	12 x 1.5	17	100
53119010	16 x 1.5	22	100
53119020	20 x 1.5	27	100
53119030	25 x 1.5	34	100
53119040	32 x 1.5	41	100
53119050	40 x 1.5	50	25
53119060	50 x 1.5	60	25
53119070	63 x 1.5	75	25
SKINTOP® GMP-GL-M black			
53119100	12 x 1.5	17	100
53119110	16 x 1.5	22	100
53119120	20 x 1.5	27	100
53119130	25 x 1.5	34	100
53119140	32 x 1.5	41	100
53119150	40 x 1.5	50	25
53119160	50 x 1.5	60	25
53119170	63 x 1.5	75	25
SKINTOP® GMP-GL-M light grey			
53119003	12 x 1.5	17	100
53119013	16 x 1.5	22	100
53119023	20 x 1.5	27	100
53119033	25 x 1.5	34	100
53119043	32 x 1.5	41	100
53119053	40 x 1.5	50	25
53119063	50 x 1.5	60	25
53119073	63 x 1.5	75	25

5

Locknut Metal



Metric

Article number	Article designation / size	Thickness (mm)	SW wrench size mm	Outer Ø (mm)	Pieces / PU
SKINDICHT® SM-PE-M					
52103000	12 x 1.5	3.5	15	16.5	100
52103010	16 x 1.5	3.5	19	20.9	100
52103020	20 x 1.5	3.7	24	26.4	100
52103030	25 x 1.5	4.2	30	33.0	50
52103040	32 x 1.5	4.7	36	39.6	50
52103050	40 x 1.5	5.5	46	50.6	25
52103060	50 x 1.5	5.5	60	66.0	10
52103070	63 x 1.5	7.0	70	77.0	10
52103071	75 x 1.5	8.0	85	95.0	5
52103072	90 x 2	10.0	102	114.0	1
52103073	110 x 2	12.0	124	135.0	1

Terminal and Protection Sleeves

BCT

conduit termination



For sealing of cables and wires at the exit from PMA corrugated conduits. Avoids ingress of dirt and liquids.

Order No. Black	Fits to conduit size		Clamping Range	Dimensions Length	Dimensions Height
	NW	metric			
BCT-10	10	12	4-8	28.0 mm	13.0 mm
BCT-12	12	16	5-9	35.0 mm	16.0 mm
BCT-17	17	20	7-14	42.0 mm	21.0 mm
BCT-23	23	25	7-14	51.0 mm	28.0 mm
BCT-29	29	32	16-30	53.0 mm	34.0 mm
BCT-36	36	40	16-34	55.0 mm	42.0 mm

- Neoprene Rubber
- Temperature range:** -40°C to +105 °C



PMA Divisible System

PACOF

HL3 according to EN45545-2



- Specifically modified polyamide 6
 - Easy installation and trouble-free retrofitting, applicable also for repairs
 - Can be opened and closed again in longitudinal direction at any time
 - Self extinguishing
 - Free from Halogens and cadmium
- Temperature Range:** -40°C to +105°C
Short term: to +160°C
Chemical resistance: To fuels, mineral oils, fats, alkalies weak acids etc.

The PMA divisible conduit system type PACOF has been created for pre-loomed applications. New cables can be added without the need for re-wiring or re-threading within the building of machines and installations. Further, this product will be used increasingly in vehicle manufacturing and building construction. Divisible connectors and lock nuts are available for this product group.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	Stat** Radius	PU Meter
	NW	Metric				
PACOF-07B	07	10	5.6 mm	10.0 mm	30 mm	50
PACOF-10B	10	12	8.5 mm	12.8 mm	33 mm	50
PACOF-12B	12	16	11.0mm	15.6 mm	35 mm	50
PACOF-17B	17	20	15.5 mm	21.1 mm	45 mm	50
PACOF-23B	23	25	22.1 mm	28.4 mm	70 mm	50
PACOF-29B	29	32	27.2 mm	34.5 mm	120 mm	50
PACOF-36B	36	40	32.0 mm	42.4 mm	145 mm	30
PACOF-45B	45	50	43.9 mm	54.1 mm	150 mm	30
PACOF-70B	70	80	62.0 mm	79.0 mm	190 mm	10

PPCOF



- Specifically modified polypropylene PP
 - Easy installation and trouble-free retrofitting, applicable also for repairs
 - Can be opened and closed again in longitudinal direction at any time
 - Self extinguishing
 - Free from Halogens and cadmium
- Temperature Range:** -20°C to +105°C
Short term: to +160°C
Chemical resistance: To fuels, mineral oils, fats, alkalies weak acids etc.

The PMA divisible conduit system type PPCOF has been created for pre-loomed applications. New cables can be added without the need for re-wiring or re-threading within the building of machines and installations. Further, this product will be used increasingly in vehicle manufacturing and building construction. Divisible connectors and lock nuts are available for this product group.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	Stat** Radius	PU Meter
	NW	Metric				
PPCOF-07B	07	10	5.6 mm	10.0 mm	25 mm	50
PPCOF-10B	10	12	8.5 mm	12.8 mm	28 mm	50
PPCOF-12B	12	16	11.0mm	15.6 mm	35 mm	50
PPCOF-17B	17	20	15.1 mm	21.1 mm	45 mm	50
PPCOF-23B	23	25	22.1 mm	28.4 mm	60 mm	50
PPCOF-29B	29	32	26.6 mm	34.5 mm	100 mm	50
PPCOF-36B	36	40	31.8 mm	42.4 mm	120 mm	30
PPCOF-45B	45	50	43.9 mm	54.1 mm	140 mm	30
PPCOF-70B	70	80	60.5 mm	78.0 mm	200 mm	10

BLNO

divisible, straight, metric



- Specifically modified polyamide 6
 - IP54 – One-piece divisible fitting
 - Self extinguishing
 - Free from halogens and cadmium
 - Excellent impact strength
- Temperature range:** -50°C to +105°C
Short term: +160°C
Special: Push-in installation of conduit into pre-installed fitting also possible
Delivery: fitting delivered open

Compatible with PMA standard, slit and divisible conduits with standard normal widths
 In industries, plant construction, machine building as well as in house and electrical installations
 For retrofit installation or repair.

Order No. Black	Thread Metric	Fits to conduit size		Dimension Length	Overall Length
		NW	metric		
BLNO - M160	M16x1.5	10	12 mm	13.0 mm	36.5 mm
BLNO - M162	M16x1.5	12	16 mm	13.0 mm	39.5 mm
BLNO - M202	M20x1.5	12	16 mm	13.0 mm	39.5 mm
BLNO - M207	M20x1.5	17	20 mm	13.0 mm	43.5 mm
BLNO - M257	M25x1.5	17	20 mm	14.0 mm	44.5 mm
BLNO - M253	M25x1.5	23	25 mm	14.0 mm	52.5 mm
BLNO - M323	M32x1.5	23	25 mm	17.0 mm	56.0 mm
BLNO - M329	M32x1.5	29	32 mm	17.0 mm	61.0 mm
BLNO - M409	M40x1.5	29	32 mm	21.0 mm	65.0 mm
BLNO - M406	M40x1.5	36	40 mm	22.0 mm	74.5 mm
BLNO - M508	M50x1.5	48	50 mm	22.0 mm	80.5 mm



PMA Divisible System

BLTO

divisible, T piece



- High grade Specifically modified polyamide 6.6
- Easy installation
- Conduit can be installed in fitting prior to closing
- High conduit pull out strength
- High impact resistance
- Very good chemical properties
- Free from Halogens and Cadmium
- Fits both conduit profiles - fine (T) and course (G)

In industry, plant construction, machine building and electrical installations.
 For retrofit installation and repair.

Compatible with PMA Standard, slit and divisible conduits with standard normal widths 07-29

Order No. Black	Fits to conduit size			Dimension Length		Weight
	C	D	E			
BLTO - 070707	07	07	07 mm	45.2 mm	31.1 mm	0.45
BLTO - 101010	10	10	10 mm	45.2 mm	31.1 mm	0.45
BLTO - 121212	12	12	12 mm	49.1 mm	34.8 mm	0.62
BLTO - 171717	17	17	17 mm	56.5 mm	41.0 mm	0.91
BLTO - 232323	23	23	23 mm	64.5 mm	48.6 mm	1.42
BLTO - 292929	29	29	29 mm	72.0 mm	55.3 mm	2.12

BLYO

divisible Y piece



- High grade, specially formulated polyamide 6
 - High impact resistance
 - Easy installation
 - Very good chemical properties
 - Free from halogens and cadmium
- Temperature range:** -40°C to 100°C
Short term: +130°C

In industry, plant construction, machine building and electrical installations.
 For retrofit installation and repair.

Compatible with PMA Standard, slit and divisible conduits with standard normal widths 07-29

Order No. Black	Fits to conduit size			Dimension Length in mm					Weight
	F	tG	H	A	B	C	D	E	
BLYO - 100707	10	07	07	54.6	37.1	10.0	10.0	10.0	0.65
BLYO - 121010	12	10	10	54.9	39.8	10.0	10.0	10.0	0.70
BLYO - 171212	17	12	12	63.6	47.5	12.0	10.0	10.0	0.95
BLYO - 231717	23	17	17	76.5	60.0	13.0	11.0	11.0	1.75
BLYO - 292917	29	29	17	100.6	76.0	13.0	13.0	13.0	3.12

BLN

divisible lock nutr, metric



- High grade, specially formulated polyamide 6
 - High impact resistance
 - Easy installation
 - Very good chemical properties
 - Free from halogens and cadmium
- Temperature range:** -40°C to 100°C
Short term: +130°C

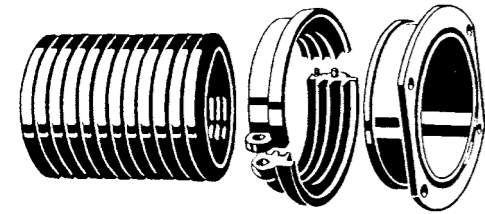
Compatible with PMA divisible system, type BLNO. In connection with divisible PMA connectors and conduits. For installation upon fully assembled cable looms or repair in machine and plant construction.

Order No. Black	Thread Metric	Fits with divisible connector		Outside Diameter	Dimensions Width
BLN - M16	M16x1.5	BLNO - M160	BLNO - M162	21.5 mm	8.0 mm
BLN - M20	M20x1.5	BLNO - M202	BLNO - M207	29.0 mm	8.0 mm
BLN - M25	M25x1.5	BLNO - M257	BLNO - M253	35.5 mm	9.0 mm
BLN - M32	M32x1.5	BLNO - M323	BLNO - M329	44.5 mm	12.0 mm
BLN - M40	M40x1.5	BLNO - M409	BLNO - M406	53.5 mm	15.0 mm
BLN - M50	M50x1.5	BLNO - M508		69.0 mm	15.0 mm



Jumbo Conduits and Accessories

Jumbo



The PMAFLEX Jumbo conduits are suitable for a wide range of applications in general machine building. Further, these conduit types can be used in the vehicle building and robotic industries.

Order No. Black	Conduit size NW	Conduit size Metric	Inside Diameter	Outside Diameter	stat.**/dyn.*** Radius	PU Meter
Standard						
CF - 56B	56	63	56.3 mm	67.2 mm	130/- mm	30
CF - 70B	70	80	67.5 mm	80.0 mm	160/- mm	30
CF - 95B	95	106	91.5 mm	106.0 mm	210/- mm	30
Standard						
CYLG - 56B	56	63	56.3 mm	67.2 mm	120/- mm	30
CYLG - 70B	70	80	68.0 mm	80.0 mm	160/- mm	30/10
CYLG - 95B	95	106	91.9 mm	106.0 mm	210/- mm	10
CYLG - 125B	125	146	126.5 mm	146.5 mm	450/- mm	6
Robotic						
PIHG - 56B	56	63	56.3 mm	67.2 mm	110/270 mm	30
PIHG - 70B	70	80	67.5 mm	80.0 mm	150/350 mm	30/10
PIHG - 95B	95	106	91.5 mm	106.0 mm	170/450 mm	30/10
PIHG - 125B	125	146	126.5 mm	146.5 mm	350/580 mm	20
PUEG - 56B	56	68	56.3 mm	67.2 mm	90/170 mm	30
PUEG - 70B	70	80	68.2 mm	80.2 mm	100/220 mm	30
Smart Line						
LLPAG-56A	56	63	56.3 mm	67.2 mm	120 mm	30
LLPAG-70A	70	80	68.0 mm	80.0 mm	160 mm	10
LLPAG-95A	95	106	91.9 mm	106.0 mm	210 mm	10
LLPAG-125A	125	146	126.5 mm	146.5 mm	450 mm	6
Heavy Duty						
VOHG - 56B	56	-	55.5 mm	67.2 mm	135 mm	10
VOHG - 70B	70	-	67.0 mm	80.0 mm	200 mm	10
VOHG - 95B	95	-	90.5 mm	106.0 mm	300 mm	10
VOHG - 125B	125	-	126.0 mm	146.5 mm	480 mm	6



BGG/BGGV

flange straight



This PMAGRIP system can be used in a wide range of applications. The simple mounting with locking clamp guarantees a vibration free connection which enables a high grade of safety and sealing.

Order No. IP65 Black	Order No. IP68 Black	Fits to NW	Dimensions Width	Dimensions Height	Dimensions Depth
BGG - 56	BGGV-56	56	80.0 mm	98.0 mm	39.0 mm
BGG - 70	BGGV-70	70	95.0 mm	112.0 mm	43.0 mm
BGG - 95	BGGV-95	95	125.0 mm	146.0 mm	50.0 mm
BGG - 125	-	125	192.0 mm	192.0 mm	76.0 mm

- High grade polyamide grade 6
 - Flange seal FG04 made from EPDM
 - Very high impact strength
 - Vibration proof connection
 - Free from halogens and cadmium
 - High conduit pull-out strengths
 - Very good chemical properties
- Temperature range** width FG04 -40°C to +105°C

BGO/BGOV

flange 90° elbow



This PMAGRIP system can be used in a wide range of applications. The simple mounting with locking clamp guarantees a vibration free connection which enables a high grade of safety and good sealing.

Order No. IP65 Black	Order No. IP68 Black	Fits to NW	Dimensions Width	Dimensions Height	Dimensions Depth
BGO - 56	BGOV-56	56	83.0mm	98.0mm	101.0mm
BGO - 70	BGOV-70	70	96.0 mm	112.0 mm	107.0 mm
BGO - 95	BGOV-95	95	125.0 mm	146.0 mm	142.0 mm

- High grade polyamide grade 6
 - Flange seal FG04 made from EPDM
 - Very high impact strength
 - Vibration proof connection
 - Free from halogens and cadmium
 - High conduit pull-out strengths
 - Very good chemical properties
- Temperature range** width FG04 -40°C to +105°C

BGG

straight thread



This PMAGRIP system can be used in a wide range of applications. The simple mounting with locking clamp guarantees a vibration free connection which enables a high grade of safety. Using the enclosed conduit seals an ingress and a rating of up to IP65 can be achieved.

Order No. IP50 Black	Thread Metric/PG	Fits to NW	Dimensions Width	Dimensions Height	Dimensions Depth
BGG-M6356	M63x1.5	56	18.0mm	98.0mm	57.3mm
BGG-P3656	PG 36	56	18.0mm	98.0mm	57.3mm

- High-grade formulated polyamide
 - Self-extinguishing, free from halogens and cadmium
 - Excellent impact strength
- Temperature range:** -40°C to +105°C;
Short-term: to +160°C
 Content of delivery: threaded connector body, fixation clamps (incl. 2 screws), conduit seal ring (SG03, optional for IP65)



Tube Clamps, conduit seal rings, large size accessories

BGH tube clamps



These tube clamps are used for the mounting and smooth connection to the PMA conduits for large nominal widths in the general machine and installation constructions. They are especially suitable for the mounting of static conduits.

Order No. Black	Fits to conduit size		Dimensions Width	Fixing Screw
	NW	Metric		
BGH - 56	56	68	26.0 mm	2 x M8
BGH - 70	70	80	30.0 mm	2 x M8
SGS - 95	95	106	30.0 mm	2 x M8

- Integrated rib provides axial strain relief
- Allows turning of the conduit thus avoiding causion
- Pre-fixation on the conduit possible
- Allows solid fixation with 2 screws

5



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SGS tube clamps



These tube clamps are used for the mounting and smooth connection to the PMA conduits for large nominal widths in the general machine and installation constructions. They are especially suitable for the mounting of static conduits.

Order No. Black	Fits to NW	Dimensions Width	Dimensions Height	Dimensions Depth
SGS - 36	36	80.0 mm	48.0 mm	19.0 mm
SGS - 48	48	94.0 mm	58.0 mm	19.0 mm
SGS - 56	56	118.0 mm	72.0 mm	24.0 mm
SGS - 70	70	145.0 mm	85.0 mm	24.0 mm
SGS - 95	95	156.0 mm	110.0 mm	24.0 mm
SGS - 125	125	200.0 mm	152.0 mm	24.0 mm





PMA Braided Cable Protection

F.66

braided hose



In the aviation, construction of vehicles and railway industries



- High Grade, specially modified Polyamide PA 6.6
- Surface coverage: > 90%
- Flammability: UL 94 V2
- Specifications: DIN 5510 (S4/SR/ST2), NF F 16-101/102 (I3/F2), UL-File E 125 619, EN45545-2 HL3
- Design: following DIN 65164 part 1+2
- Monofile Ø: 0.28 mm for increased abrasion properties
- **Temperature range:** -55°C to +135°C (UL +125°C)
- **Short term:** +160°C

Order No. Black	Order No. Grey	NW	fits to termination	Operative Range min. Ø	Operative Range max. Ø	Weight nom. per 100 m
F.66.03SW	F.66.03GR	03	—	2.0mm	5.0	0.3 kg
F.66.04SW	F.66.04GR	04	—	3.0mm	7.0	0.4 kg
F.66.06SW	F.66.06GR	06	SRER-06	5.0mm	8.0	0.6 kg
F.66.08SW	F.66.08GR	08	SRER-06	7.0mm	10.0	0.8 kg
F.66.10SW	F.66.10GR	10	SRER-06	9.0mm	13.0	1.0 kg
F.66.12SW	F.66.12GR	12	SRER-06	11.0mm	16.0	1.4 kg
F.66.16SW	F.66.16GR	16	SRER-16	15.0mm	21.0	1.7 kg
F.66.20SW	F.66.20GR	20	SRER-16	20.0mm	26.0	2.0 kg
F.66.25SW	F.66.25GR	25	SRER-21 / SRER-29	24.0mm	31.0	2.4 kg
F.66.30SW	F.66.30GR	30	SRER-21 / SRER-29	28.0mm	38.0	3.5 kg
F.66.40SW	F.66.40GR	40	SRER-29	38.0mm	49.0	4.2 kg
F.66.50SW	F.66.50GR	50	SRER-40 / SRER-50	48.0mm	65.0	5.1 kg
F.66.70SW	F.66.70GR	70	SRER-40 / SRER-50	48.0mm	85.0	4.9 kg



PMA Braided Cable Protection

F.PX

braided hose



- **Temperature range:** -50°C to +120°C;
- **Short-term:** to +150°C **Surface coverage:** > 90 %
- **Flammability:** UL 94 V0
- **Specifications:** DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I2/F2)
- **Design:** following DIN 65 164 part 1+2 Monofile Ø: 0.28 mm for increased abrasion properties

The PMAJACK braiding F.PX is made of polyester and has a surface coverage of > 90%. The material is self-extinguishing and free from halogens. This braid is used for bundling and protecting electrical cables or other components in industrial and automobile sectors.

Order No. Grey	NW	fits to termination	Operative Range min. Ø	Operative Range max. Ø	Weight nom. per 100 m
F.PX.04GR	04	—	3.0 mm	7.0 mm	0.3 kg
F.PX.06GR	06	SRER-06	5.0 mm	8.0 mm	0.5 kg
F.PX.08GR	08	SRER-06	7.0 mm	10.0 mm	0.7 kg
F.PX.10GR	10	SRER-06	9.0 mm	13.0 mm	0.8 kg
F.PX.12GR	12	SRER-06	11.0 mm	16.0 mm	1.1 kg
F.PX.16GR	16	SRER-16	15.0 mm	21.0 mm	1.3 kg
F.PX.20GR	20	SRER-16 / SRER-21	20.0 mm	26.0 mm	1.5 kg
F.PX.25GR	25	SRER-16 / SRER-21	24.0 mm	31.0 mm	2.0 kg
F.PX.30GR	30	SRER-21 / SRER-29	28.0 mm	38.0 mm	2.9 kg
F.PX.40GR	40	SREV-40	38.0 mm	49.0 mm	3.1 kg

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C.66

braided hose

The economical PMAJACK braiding L.PX is made of polyester and has a surface coverage of > 65 %. The material is self-extinguishing and free from halogens. L.PX is used for bundling and protecting electrical cables in industrial and automobile sectors.



- **Temperature range:** -50°C to +120°C;
- **Short term:** to +150°C
- **Surface coverage:** >65%
- **Flammability:** UL 94 V0
- **Specifications:** DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I2/F2)
- **Design:** following DIN 65 164 part 1 + Monofile Ø: 0.22 mm

Order No. Black	Order No. Grey	NW	fits to termination	Operative Range min. Ø	Operative Range max. Ø	Weight nom. per 100 m
C.66.10SW	C.66.10GR	10	SRER-06	8.0mm	14.0	0.7 kg
C.66.12SW	C.66.12GR	12	SRER-06 / SRER-16	9.0mm	18.0	0.9 kg
C.66.16SW	C.66.16GR	16	SRER-06 / SRER-16	11.0mm	22.0	1.2 kg
C.66.20SW	C.66.20GR	20	SRER-06 / SRER-21	14.0mm	26.0	1.4 kg
C.66.25SW	C.66.25GR	25	SRER-06 / SRER-21	18.0mm	28.0	1.4 kg
C.66.30SW	C.66.30GR	30	SRER-06 / SRER-29	25.0mm	43.0	2.5 kg
C.66.40SW	C.66.40GR	40	SRER-29	30.0mm	52.0	2.5 kg
C.66.45SW	—	45	SRER-40 / SRER-50	40.0mm	73.0	4.0 kg

L.PX

braided hose

The economical PMAJACK braiding L.PX is made of polyester and has a surface coverage of > 65%. The material is self-extinguishing and free from halogens. L.PX is used for bundling and protecting electrical cables in industrial and automobile sectors.



- **Temperature range:** -50°C to +120°C;
- **Short-term:** to 150°C
- **Surface coverage:** > 65 %
- **Flammability:** UL 94 V0
- **Specifications:** DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I2/F2) EN45545-2 HL3
- **Design:** following DIN 65 164 part 1+2
- **Monofile Ø:** 0.22 mm

Order No. Black	Order No. Grey	NW	fits to termination	Operative Range min. Ø	Operative Range max. Ø	Weight nom. per 100 m
L.PX.04SW	L.PX.04GR	04	—	3.0mm	8.0	0.4 kg
L.PX.08SW	L.PX.08GR	08	SRER-06	5.0mm	10.0	0.5 kg
L.PX.10SW	L.PX.10GR	10	SRER-06	7.0mm	14.0	0.7 kg
L.PX.16SW	L.PX.16GR	16	SRER-16	11.0mm	20.0	0.8 kg
L.PX.20SW	L.PX.20GR	20	SRER-16	19.0mm	28.0	1.2 kg
L.PX.25SW	L.PX.25GR	25	SRER-21 / SRER-29	21.0mm	34.0	1.4 kg
L.PX.30SW	L.PX.30GR	30	SRER-21 / SRER-29	25.0mm	40.0	1.7 kg
L.PX.40SW	L.PX.40GR	40	SRER-29	31.0mm	55.0	1.7 kg
L.PX.50SW	L.PX.50GR	50	SREV-40 / SRER-50	40.0mm	68.0	

L.66

braided hose

The economical PMAJACK braiding L.PX is made of polyester and has a surface coverage of > 65 %. The material is self-extinguishing and free from halogens. L.PX is used for bundling and protecting electrical cables in industrial and automobile sectors.



- **Temperature range:** -50°C to +120°C;
- **Short-term:** to 150°C
- **Surface coverage:** > 65 %
- **Flammability:** UL 94 V0
- **Specifications:** DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I2/F2)
- **Design:** following DIN 65 164 part 1+2 Monofile Ø: 0.22 mm

Order No. Black	Order No. Grey	NW	fits to termination	Operative Range min. Ø	Operative Range max. Ø	Weight nom. per 100 m
L.66.04SW	L.66.04GR	04	—	3.0mm	5.0	0.4 kg
L.66.08SW	L.66.08GR	08	SRER-06	5.0mm	10.0	0.5 kg
L.66.10SW	L.66.10GR	10	SRER-06	7.0mm	13.0	0.8 kg
L.66.16SW	L.66.16GR	16	SRER-16	11.0mm	20.0	0.9 kg
L.66.20SW	L.66.20GR	20	SRER-16	19.0mm	33.0	1.4 kg
L.66.25SW	L.66.25GR	25	SRER-21 / SRER-29	21.0mm	34.0	1.5 kg
L.66.30SW	L.66.30GR	30	SRER-21 / SRER-29	25.0mm	45.0	1.8 kg
L.66.40SW	L.66.40GR	40	SRER-29	31.0mm	55.0	1.9 kg
L.66.50SW	L.66.50GR	50	SREV-40 / SRER-50	58.0mm	70.0	3.2 kg

G.PX

open braided hose

The self-winding open braiding G.PX is made of polyester and designed for the bundling and mechanical protection of electrical wires in a wide range of applications. Due to its open construction with an overlap of 90° it is also the perfect solution for retrofit installations. The G.PX is self-extinguishing and free from halogens.



- **Polyester**
- **Temperature range:** -55°C to +150°C
- **Overlapping:** 90° (+40°/-25°)
- **Flammability:** UL 94 V0
- **Specifications:** DIN 5510 (S4/SR2/ST2), NF F 16-101/102 (I3/F2), EN45545-2 HL3

Order No. Black	NW	Recommended Range		Weight net kg/100m	Weight nom. per 100 m
		min. Ø	mm. Ø		
G.PX.05SW	05	4.5mm	5.5mm	1.6	25
G.PX.08SW	08	7.0mm	9.0mm	2.0	25
G.PX.10SW	10	9.0mm	11.0mm	2.3	25
G.PX.13SW	13	11.5mm	13.0mm	2.5	25
G.PX.16SW	16	14.5mm	17.5mm	3.4	25
G.PX.19SW	19	17.0mm	21.0mm	3.8	25
G.PX.25SW	25	22.5mm	27.5mm	4.8	25
G.PX.29SW	29	26.0mm	32.0mm	5.3	25
G.PX.32SW	32	29.0mm	35.0mm	6.1	25
G.PX.38SW	38	34.0mm	42.0mm	8.3	25
G.PX.50SW	50	45.0mm	55.0mm	8.7	25

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PMA Braided Hose Terminals

SRER/SREV

PMAJACK termination



- *For exact braid and termination fitting configuration please refer to PMAJACK data sheets
- *x= with one mounting hole
- y= with two mounting holes
- z= with three mounting holes

Temperature range: -40°C to +105°C;

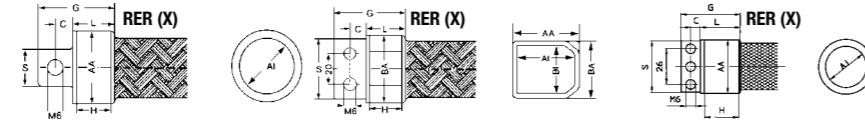
Short-term: to +160°C

System belonging to: PMAJACK F.66, C.66, L.66, F.PX, L.PX

Version: type RER = round version / type REV = rectangular version

These terminations for PMAJACK braids are produced from high-grade modified polyamide which is self-extinguishing, free from halogens and cadmium. These fittings offer excellent terminations for plastic braided hoses.

Order No. Grey	NW	Fits to PMA JACK*	Dimensions in mm (nom.)									Weight nom. per 100 pieces
			AI	AA	BI	BA	H	L	G	S	C	
SRER-06 (x)	06	06-16	6.5	13	-	-	13	21	33	13	6	0.2kg
SRER-16 (x)	16	12-25	16	24	-	-	15	25	39	15	7	0.6kg
SRER-21 (x)	21	25-30	22	32	-	-	20	29	43	15	7	1.1kg
SRER-29 (z)	29	25-40	30	40	-	-	18	29	43	39	7	1.5kg
SRER-50 (z)	50	50-70	50	61	-	-	18	29	43	50	7	2.4kg
SREV-40 (y)	40	50-70	47	58	34	44	20	24	44	38	10	2.1kg



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BREIR

PMAJACK polyamide female thread adapter



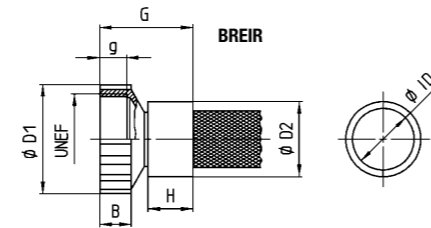
Temperature range: -40°C to +105°C; Short-term: to +160°C

System belonging to: PMAJACK F.66, C.66, L.66, F.PX, L.PX

*For exact braid and termination fitting configuration please refer to PMAJACK data sheets

BREIR female thread adapters for PMAJACK braids are produced from high-grade modified polyamide which is self-extinguishing, free from halogens and cadmium. Used to fit round multi-pin connectors they offer excellent terminations for braids. Different thread types (UNEF, metric, etc.) and sizes can be designed on request.

Order No. Black	NW	Fits to PMA JACK*		Dimensions in mm (nom.)							Weight nom. per 100 pieces	
		F.66	C.66	g	ø D1	ø ID	B	G	H	ø D2		
		F.66	C.66	L.66								
		F.PX	L.PX									
BREIR-U2916	16	12-20	12-25	12-25	36.2	20.5	10.5	36.5	9	15	25	0.9 kg
BREIR-U3516	16	12-20	12-25	12-25	42.5	20.5	11.5	37.5	9	15	25	1.2 kg



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MREIR

PMAJACK metal female thread adapter

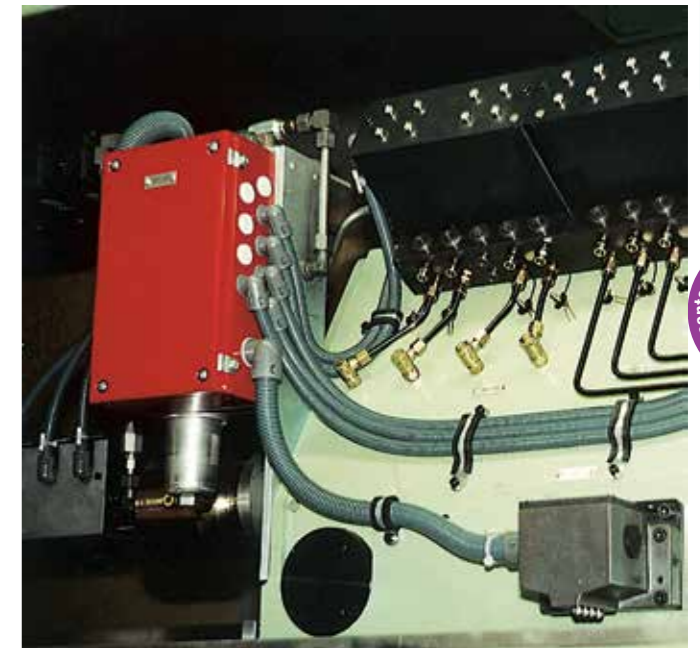
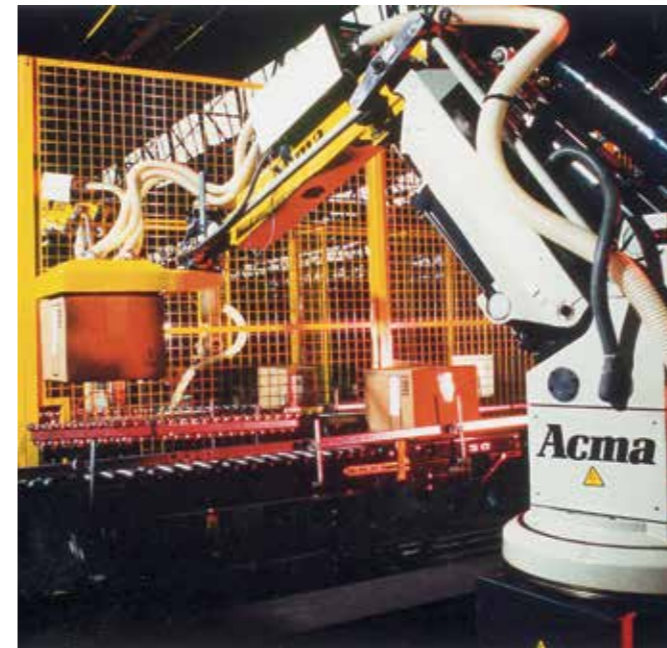
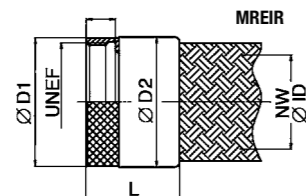


Temperature: -40°C bis +105 °C;
Short Term: to +160°C

MREIR female thread adapters for PMAJACK braids are produced from black anodised aluminium. The clamping ring is produced from specially modified polyamide (PA6). These adapters can be manufactured also in small quantities. Different thread types (UNEF, metric, etc.) and sizes can be designed on request.

Order No. Black	NW	Fits to PMA JACK*		Dimensions in mm (nom.)					Weight nom. per 100 pieces	
		F.66	C.66	L.66	g	ø D1	ø D2	L		ø ID
MREIR-U3529	29	25-40	30+40	25-40	29	40.0	40.5	37.5	30.0	3.0 kg

- *For exact braid and termination fitting configuration please refer to PMAJACK data sheets





Automation Products

PMA Cable Protection System for Automation applications. This PMA Cable Protection System has been conceived to protect cables and wires in extreme automation and robotic installations. Through different conduit types for various requirements, system supports and a range of special accessories, torsion can be avoided and the stresses upon the cables reduced to a minimum.



Automation Introduction

Cable protection system for automation applications

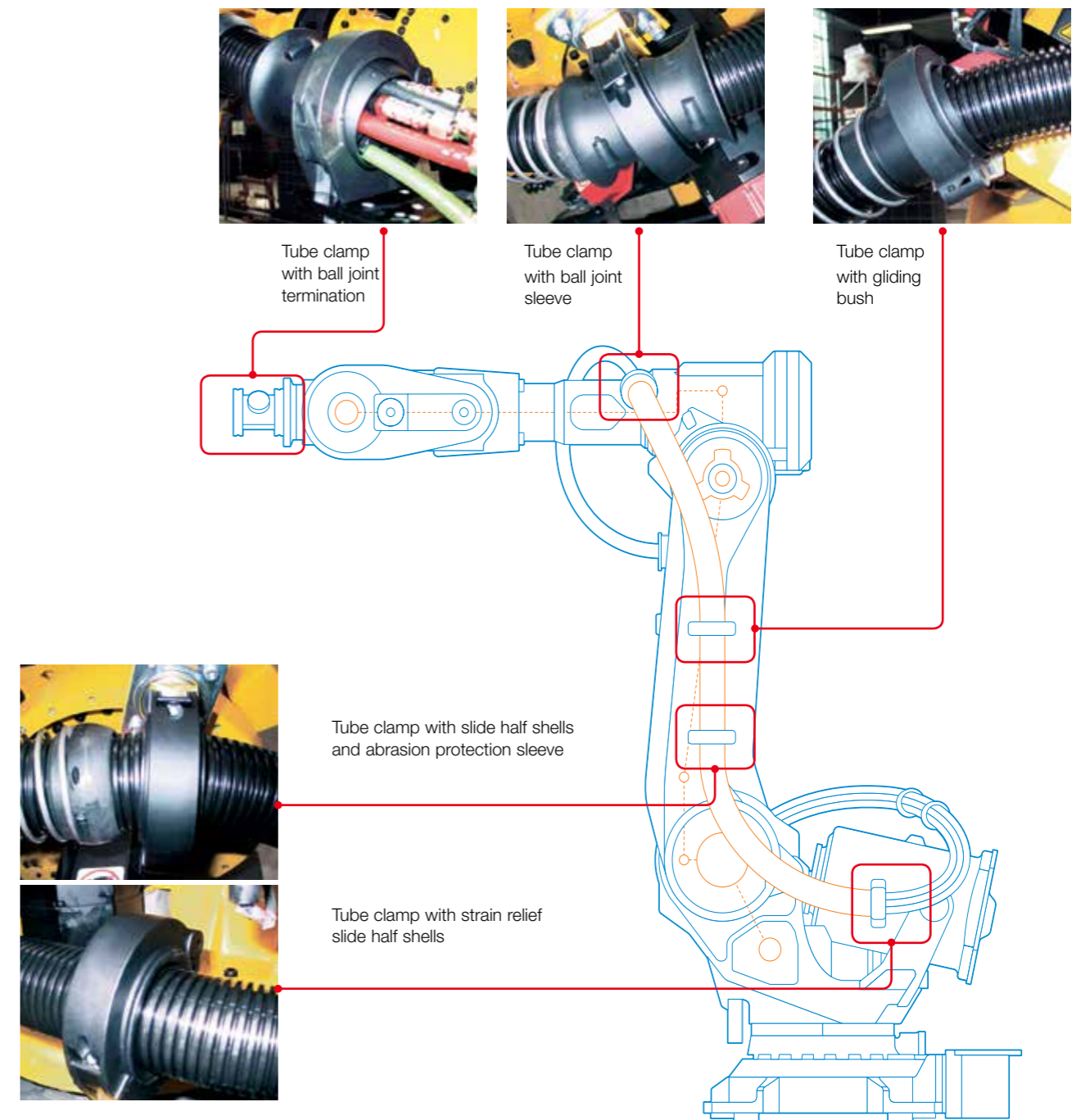
Automation accessories
General technical details

Material

Specially formulated polyamide 6
Free from halogens, REACH + RoHS compliant
Temperature range: -40 °C to +105 °C,
short term to +160 °C

Characteristics

- Reduce wear to guidance and control elements
- Increase the degree of freedom of robotic in-stallations
- Allow optimal layout of cables along moving elements
- Increase the lifetime of moving installations
- Allow quick and easy installation



Automation Products

PIS/PIH

For robotics and automation applications



- Specially formulated polyamide 12
- Very good resistance to reversed bending
- Temperature range: -50 °C to +95 °C
- Short-term to +150 °C

Highly Flexible, medium and heavy duty
For Robotics and automation applications
UL 94 V0

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
PIS						
PIST - 29B	29	32	29.0 mm	34.3 mm	45/110 mm	50
PIST - 36B	36	40	36.5 mm	42.5 mm	60/165 mm	30
PIST - 48B	48	50	47.5 mm	54.5 mm	70/180 mm	30
PIHG - 56B	56	68	56.3 mm	67.2 mm	110/270 mm	30
PIHG - 70B	70	80	67.5 mm	80.0 mm	150/350 mm	30/10



PUE



Highly Flexible, medium-duty
For Robotics and automation applications
UL 94 V0

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
PUE						
PUET - 29B	29	32	28.8.0 mm	34.5 mm	40/90 mm	30
PUET - 36B	36	40	35.8 mm	42.4 mm	50/120 mm	30
PUET - 48B	48	50	48.6 mm	54.5 mm	60/130 mm	21
PUEG - 56B	56	68	56.3 mm	67.2 mm	90/170 mm	30
PUEG - 70B	70	80	68.2 mm	80.5 mm	100/220 mm	30

XR 90



Three layer corrugated conduit, very flexible, medium duty. Strain relief half shell reduction.
For robotics and automation applications
With wear indicator

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
XR90						
XR90G - 29BR	29	32	29.1 mm	34.3 mm	45/110 mm	50
XR90G - 36BR	36	40	36.8 mm	42.2 mm	60/165 mm	30
XR90G - 48BR	48	50	47.3 mm	54.2 mm	70/200 mm	30
XR90G - 56BR	56	68	56.3 mm	67.3 mm	110/270 mm	30
XR90G - 70BR	70	80	67.4 mm	79.8 mm	150/350 mm	30

- Outer, intermediate and inner layer made from specially formulated polyamide 12
- Very good chafing resistance
- Excellent resistance to continuous bending
- No abrupt conduit failure due to high tear propagation resistance
- Temperature range: -40 °C to +95 °C, short-term to +150 °C

POS

Highly Flexible, medium-duty



Highly Flexible, medium-duty
For automation as well as for machine building and industrial installations, especially where continuous movements occur.

Order No. Black	Conduit size		Inside Diameter	Outside Diameter	stat.**/dyn. *** Radius	PU Meter
	NW	Metric				
POS						
POST - 29B	29	32	29.0 mm	34.5 mm	50/120 mm	50
POST - 36B	36	40	36.5 mm	42.5 mm	60/180 mm	30
POST - 48B	48	50	47.5 mm	54.5 mm	70/195 mm	30
POSG - 70B	70	80	67.2 mm	79.6 mm	150/350 mm	30

Automation Accessories

BSH

one piece



To be used with GN half-shells to optimally fix/guide conduits. Serves as a fixation for functional inserts (TK, KE) which increase the degrees of freedom for cable packs and reduce mechanical stresses

Order No. Black	Fits to conduit size		Dimensions Length	Dimensions Height	Dimensions Width
	NW	metric			
BSH-R29	29	32	71.0 mm	67.0 mm	26.0 mm
BSH-R36	36	40	81.5 mm	47.5 mm	66.0 mm
BSH-R48	48	50	96.0 mm	61.5 mm	66.0 mm
BSH-R56	56	68	112.5 mm	61.5 mm	66.0 mm
BSH-R70	70	80	149.0 mm	76.0 mm	66.0 mm

BGN

Half-shell



For conduit fixation in combination with tube clamp SH.
Fixes conduit against axial movements
Allows rotation of the conduit (within tube clamp SH)

Order No. Black	Fits to conduit size		Dimensions Length	Dimensions Width
	NW	metric		
BGN-S29T	29	32	47.0 mm	34.0 mm
BGN-S36T	36	40	55.0 mm	34.0 mm
BGN-S48T	48	50	66.5 mm	36.5 mm

BGN

Slide Half-shell



For conduit fixation in combination with tube clamp SH.
Allows gliding of the conduit in the clamps and thus reduce axial stress on the conduit
Allows for both rotation of the conduit and axial movement

Order No. Black	Fits to conduit size		Dimensions Length	Dimensions Width
	NW	metric		
BGN-R29	29	32	47.0 mm	34.0 mm
BGN-R36	36	40	55.0 mm	36.0 mm
BGN-R48	48	50	66.5 mm	36.5 mm
BGN-R56	56	68	81.0 mm	38.0 mm
BGN-R70	70	80	105.0 mm	45.0 mm

BGN

Strain relief Half-shell reduction



For reduction to the next smaller conduit size
In combination with ball joint parts NW70

Order No. Black	Fits to conduit size		Conduit Profile	Outside Width
	NW	metric		
BGN-R56G/70G	70-56	80-68	G	80.0 mm/ 35.0 mm

BGS

Grommet half-shell



Insert to the SH-R70 tube clamp to hold a grommet (KS-R70/xx)

Order No. Black	Fits to conduit size		Outside Dimensions	Width
	NW	metric		
BGS-R70	70	80	105.0 mm	45.0 mm

BTK

Ball joint sleeve



Used with SH-R70 tube clamp
Increased degree of freedom for cable packs in robotic applications
The ball joint offers additional flexibility and reduces mechanical stress on the conduit
Can be used with TR strain relief insert to fix the conduit in axial direction

Order No. Black	Fits to conduit size		PT Screws	Outside Dimensions	Length
	NW	metric			
BTK-R70	70	80	KA 50 x 20	122.0 mm	140.0 mm

Content of delivery
Ball joint sleeve, 4 PT screws

BTR

Strain relief insert



Used to fix the conduit against axial movements in TK ball joint sleeves
Rotation of the conduit remains possible

Order No. Black	Fits to conduit size		Outside Dimensions	Length
	NW	metric		
BTK-R70G	70	80	92.0 mm	25.0 mm

BKE

Ball joint termination



Used with SH-R70 tube clamp
Offers highest flexibility at the end of installations
Provides additional relief to conduit and cables due to reduced mechanical stress
A grommet can be inserted directly into the termination to hold and strain-relief the cables

Order No. Black	Fits to conduit size		PT Screws	Outside Dimensions	Length
	NW	metric			
BKE-R70G	70	80	KA 50 x 20	122.0 mm	128.0 mm

Content of delivery
Ball joint sleeve, 4 PT screws

BLH

Tube clamp, two-piecer



In automation applications for fixing PMA conduits
Compact, space saving design

Order No. Black	Fits to conduit size		Length	Height	Width
	NW	metric			
BLH-R56G	56	68	121.0 mm	128.0 mm	30.0 mm
BLH-R70G	70	80	121.0 mm	128.0 mm	30.0 mm

Allows optimum installations in automation applications due to space saving design
Content of delivery:
Tube clamp, GN half shells, 2 PT screws,
1 straight pin

BSS/SV

Abrasion protection sleeve



For conduit fixation in combination with tube clamp SH.
Fixes conduit against axial movements, allows radial turning of conduit (within tube clamp SH)

Order No. Black	Fits to conduit size		Outside diameter	Width
	NW	metric		
BSS-29	29	32	55.0 mm	26.0 mm
BSS-36	36	40	63.0 mm	30.0 mm
BSS-48	48	50	75.0 mm	30.0 mm
BSS-56G	56	68	90.0 mm	33.0 mm
BSS-70G	70	80	108.0mm	60.0 mm

Content of delivery
Abrasion protection sleeves with assembling screws

DKLK

Heavy duty swivel base



For SH + LH tube clamps
Allows rotation of cable pack supports

Order No. Black	Dimensions Length	Dimensions Height	Dimensions Width
DKLK-R56X56	56.0 mm	56.0 mm	21.5 mm
DKLK-R100X80	100.0 mm	80.0 mm	20.0 mm
DKLK-R100X80/01	100.0 mm	80.0 mm	23.0 mm

Black anodised aluminium
Robust construction, sealed high quality bearing with minimal play
Temperature range: -50°C to + 105°C
Content of delivery:
Swivel Base, 1 hexagon socket head cap screw



Chemical Resistance Data Sheet for Polyamide			
Aceticacid (10%)	C2H4O2	I	II
Acetone	C3H6O	III	III
Ammonia (30%)	NH3	III	III
Benzine	-	III	III
Brakefluid	-	III	III
Causticsoda	HNaO	III	III
Ethylalcohol (40%)	C2H6O	III	III
Glycol	C2H6O2	III	III
Hydrochloric acid (10%)	SHCL	m	I
Methanol	CH4O	II	III
Methylethylketone	C4H8O	III	III
Nitricacid (10%)	HNO3	m	m
Ozone	O3	II	II
Painthinner	-	III	III
Perchlorethylene	C2Cl4	II	II
Paraffin	-	III	III
Phosphoric acid (10%)	H3O4P	I	II
Seawater	-	III	III
Soapsolution	-	III	III
Sodiumchloride	NaCl	III	III
Sulphuric acid (10%)	H2SO4	I	II
Toluene	C7H8	III	III
Trichlorethylene	C2HCl3	I	II
Turpentine	-	III	III
Urine Resistance against Oils and Greases Cutting oils*	-	●●●	●●●
Diesel oil	-	III	III
ASTM Oil Nr.3	-	III	III
Fuel oil	-	III	III
Hydraulic oils*	-	III	III
Mineral oils	-	III	III
Spark-erosion liquids	-	III	III
Skydrol Skydrol	-	I	II
Transformer oils*	-	III	III

* Synthetic additives can affect the oil resistance of plastics. Please contact PMA for further information.

- Excellent resistance/suitable for permanent contact
- Resistant/suitable for occasional contact
- Relatively resistant/suitable for short-term contact
- Not recommended

Important:

The chemical resistance of plastic products is also dependant on factors such as temperature, amount of time exposed to chemicals (e.g. occasional contact or immersed) as well as the concentration of the specific chemicals. The stated chemical resistances are valid for a temperature of 20 °C. The chemical resistance table above serves only as a guide for the use of polyamide products in conjunction with the listed chemicals. Each specific application should be controlled for suitability by the end-user.



Ingress Protection							
PMA Products		PMA	PMAFIX Pro	PMAFIX IP68 + WPS	PMAFIX IP68 + IP68GT	PMAFIX IP66	PMA SMARTLINE
	IPx4	Splash water from all directions	✓	✓	✓	✓	✓
	IPx5	Jet water at any angle	✓	✓	✓	✓	✓
	IPx6	Powerful jet water at any angle	✓	✓	✓	✓	✓
	IPx7	Submersion (1m, 30 min.)	✓	✓	✓		
	IPx8	Submersion at time and pressure > IPx7	✓	✓	✓		
	IPx9K	High pressure (up to 80 bar) water from any angle	✓	✓	✓*	✓*	✓*

EN 60529 / DIN 40050 can be fulfilled without WPS (Water impact protection ring). PMA recommends the use of the WPS ring for trouble free practical applications.

	IP68	The first digit stands for: Protection against dust.		IP68	The second digit stands for: Protection against water.
0	No protection		0	No protection	
1	Protection against large foreign bodies		1	Protection against dripping water	
2	Protection against medium foreign bodies		2	Protection against inclined water drops	
3	Protection against small foreign bodies		3	Protection against spray water	
4	Protection against foreign grains		4	Protection against splash water	
5	Dust-protected		5	Protection against water jets	
6	Dust-tight		6	Protection against powerful water jets	
			7	Protection against immersion	
			8	Protection against submersion	
			9K	Protection against high pressure cleaning	





Treoflex liquidtight

for standard applications



5

Conduit

Treoflex liquidtight range of flexible conduit & fittings includes products tested to comply with the rigorous requirements of AS/NZS 2053.1:2001 Conduit & fittings for electrical installations - General requirements & AS/NZS 2053.8: 1995 Conduit fittings for electrical installations – Flexible conduits & fittings of metal or composite material. That means that Treoflex provides peace of mind when it comes to worker safety and asset protection.

These conduits are typically used in installations where there are motion, vibration and bending requirements such as in manufacturing or processing plants or where a high level of mechanical protection is required for an indoor or outdoor cable installation. Three grades of liquidtight jacketed metallic conduit are available to suit different types of environments.

Material

- Galvanised steel
- Outer sheath material: PVC

Technical Data

- Temperature range: -10°C to +105°C
- Temperature range temporary up to +90°C
- Oil & Acid resistant
- UV Stabilised

Note

- Suitable connection glands:
- Treoflex straight, 90° & 45°

Part No	Nominal Size (mm)	Trade size Inch	Inner Ø mm	Outer Ø mm	Minimum Bend Radius	Length	Colour
TRE016	16	3/8"	12.6	17.8	50	10, 25, 50, 150	G, B, O
TRE020	20	1/2"	16.1	21.1	65	10, 25, 50, 150	G, B, O
TRE025	25	3/4"	21.0	26.5	75	10, 25, 50, 150	G, B, O
TRE032	32	1	26.5	33.1	100	10, 25, 50, 150	G, B, O
TRE040	40	1 1/4"	35.1	41.8	120	10, 25, 50	G, B, O
TRE050	50	1 1/2"	40.4	47.9	140	10, 25	G, B, O
TRE063	63	2"	51.6	59.9	180	10, 25	G, B, O
TRE080	80	3"	78.4	88.4	300	10	G, B, O
TRE100	100	4"	102.1	113.8	350	10	G, B, O

Catalogue Number Construction

Catalogue Number – Base Code + Colour + Length
 Colours – Grey (G), Black (B), Orange (O)
 Example – 20mm Black 25mm roll = TRE020-B-25



Treoflex liquidtight straight



5

Conduit gland straight

Treoflex Liquidtight conduit fittings are designed to safely and securely attach Treoflex conduits to enclosures, machinery or bulkheads. The comprehensive range of Treoflex fittings are the only range made to comply with Australian/New Zealand standards. AS/NZS 2053.8:1995 conduit and fittings for electrical installations – general requirements & AS/NZS 2053.8:1995 Conduit and fittings for electrical installations – Flexible conduits & fittings of metal. Treoflex fittings ensure that the system is liquidtight to an IP66 rating and are available in three materials for different applications. The popular Treoflex steel fittings have become the market standard and provide superior strength in industrial applications.

Material

- Shell: nickel plated Brass
- Grounding sleeve: Steel
- Seal: PA

Properties

- Halogen-free

Application

- Plant and machine construction
- Robot construction
- Automation technology

Technical Data

- Protection classification : IP 66
- Temperature range: -55°C to +160°C
- **Note**
- Suitable for metallic protection tubes:
- Vehicle construction and ship building
- Rail technology
- Installation technology
- Control cabinet construction

Conduit Size	Thread Size	Zinc Plated Steel Straight	Nickel Plated Brass Straight	Stainless Steel Straight
16	M16 x 1.5	9360	9360-B	9360-SS
16	M20 x 1.5	9361	9361-B	9361-SS
20	M20 x 1.5	9362	9362-B	9362-SS
25	M25 x 1.5	9363	9363-B	9363-SS
32	M32 x 1.5	9364	9364-B	9364-SS
40	M40 x 1.5	9365	9365-B	9365-SS
50	M50 x 1.5	9366	9366-B	9366-SS
63	M63 x 1.5	9367	9367-B	9367-SS
80	3"	5339*	-	-
100	4"	5360*	-	-





Treoflex liquidtight 90° & 45°



Treoflex liquidtight 90° & 45°

Treoflex liquidtight conduit fittings are designed to safely and securely attach Treoflex conduits to enclosures, machinery or bulkheads. The comprehensive range of Treoflex fittings are the only range made to comply with Australian/New Zealand standards.

Material

- Shell: Cast steel, galvanised
- Grounding sleeve: Steel Seal: PA

Technical Data

- Protection classification : IP 66

Conduit Size	Thread Size	Zinc Plated Steel - 90°	Nickel Plated Brass - 90°	Stainless Steel - 90°
16	M16 x 1.5	9350	9350-B	9350-SS
16	M20 x 1.5	9351	9351-B	9351-SS
20	M20 x 1.5	9352	9352-B	9352-SS
25	M25 x 1.5	9353	9353-B	9353-SS
32	M32 x 1.5	9354	9354-B	9354-SS
40	M40 x 1.5	9355	9355-B	9355-SS
50	M50 x 1.5	9356	9356-B	9356-SS
63	M63 x 1.5	9357	9357-B	9357-SS
80	3"	5359*	-	-
100	4"	5360*	-	-

Treoflex liquidtight 45°



Conduit Size	Thread Size	Zinc Plated Steel 45°	Nickel Plated Brass 45°	Stainless Steel 45°
16	M16 x 1.5	9340	9340-B	9340-SS
16	M20 x 1.5	9341	9341-B	9341-SS
20	M20 x 1.5	9342	9342-B	9342-SS
25	M25 x 1.5	9343	9343-B	9343-SS
32	M32 x 1.5	9344	9344-B	9344-SS
40	M40 x 1.5	9345	9345-B	9345-SS
50	M50 x 1.5	9346	9346-B	9346-SS
63	M63 x 1.5	9347	9347-B	9347-SS
80	3"	5349*	-	-
100	4"	5350*	-	-



Low smoke metric size flexible conduits



FFKu - EM-F- H0-16

A medium-duty halogen free special plastic corrugated conduit. FFKu - EM-F- H0 is flame retardant and resistant to high temperatures. Available in black (RAL 9005). Halogen-free corrugated conduits are marked with a longitudinal white stripe.

Applications

The Halogen-free, flame retardant material makes FFKu-EM-F-H0 particularly suited for installations in tunnels, hospitals, hire plants and public buildings etc. Where protection for people is needed.

Physical Properties

Material: special plastic medium compressive strength, medium impact strength, temperature Resistance -5°C to +105°C

- Flame retardant
- Self extinguishing
- Halogen free
- Corrosion resistant
- Low smoke



Order No. Black	Conduit size Metric	Inside Diameter	Outside Diameter	static.**/dyn.*** Radius	PU Meter
FFKu - EM-F- H0-16	16	10.1 mm	16.0 mm	70 mm	100
FFKu - EM-F- H0-20	20	14.0 mm	20.0 mm	90 mm	100
FFKu - EM-F- H0-25	25	18.0 mm	25.0 mm	110 mm	50
FFKu - EM-F- H0-32	32	23.8 mm	32.0 mm	130 mm	50
FFKu - EM-F- H0-40	40	30.6 mm	40.0 mm	170 mm	25
FFKu - EM-F- H0-50	50	38.6 mm	50.0 mm	220 mm	25
FFKu - EM-F- H0-63	63	49.6 mm	63.0 mm	300 mm	25

All production related dimensional tolerances according to EN 60423. All dimensions without tolerances are for reference only.

Electrofitting Straight ELOCK IP66

- Open and reusable
- For installation conduit DN20/DN25
- Easy and fast "plug and play" installation
- Safe installation through special closure system
- Corrosion free
- Free of halogen
- UV stabilized
- Available in black (recommended for outside installation), grey, blue and yellow



Order No. Black	Thread Metric	Colour	Fits to conduit size Metric	Thread length	Overall length
ELOCK-S20M20PB	M20 x 1.5	Black	20	11	42.5
ELOCK-S25M25PB	M25 x 1.5	Black	25	12	43.5

