



PMA

corrugated conduits, connectors,
system support, accessories

PMAFLEX | Conduits | Cable protection

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PMA conduits		
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PMA | Accessories

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PMA - corrugated conduits, connectors, system support, accessories

- Wide range of tubes
- Long service life of the tubes especially through millions of reverse bending cycles (I-PIST)
- UL-approved products
- PMAFIX safety locking system

**PMA-Program - Wide selection of tubes and systems**

The PMA cable protection system is applied wherever the mechanical protection of electrical wires and cables is required. Very flexible types of conduits are especially suitable for the additional protection of leads in e-chainsystems® if required. By combining technical excellence with rigorous international safety standards, PMA meets the demands of industry worldwide - specialising in applications from the machine building industries to high tech manufacturing; heavy plant and vehicle construction; fiber optics, solar energy and robotic applications with high speed and millions of reversed bending cycles.

PMAFLEX - Conduits

PMAFLEX covers different conduit types for a variety of applications in cable protection. The PMAFLEX range offers conduits for technically demanding applications and special requirements. Conduit sizes range from 4.5 mm to 125 mm diameters, from lightweight to heavyweight, and pliable to highly flexible. Standard colours are black and grey. Many conduits are specially approved, e.g. CSA, UL Recognition, NF, SNCF, DB, etc.

PMAFIX - Connectors

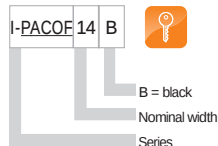
The designation PMAFIX describes a very large range of connectors for PMA conduits with the patented PMA safety clip system. Connectors are available for ingress protection IP66 and IP68. IP66 connectors are fitted with a preinstalled universal safety clip which ensures a quick "push-in" installation. IP68 connectors for increased requirements will be delivered with a special conduit seal cap.

TN - Divisible connectors, **PG** (inch thread) and **GTN** - Divisible lock nuts, **PG** (inch thread)

No longer available with inch thread since 01/01/2011. Metric thread ► next page



Part No. structure

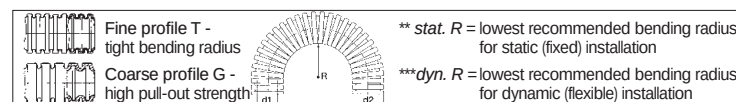
**PMAFLEX conduits PACOF - flexible, medium, divisible**

The PMA COFLEX conduit type PACOF has been created for retrofit and 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 locknuts are available for this product group.

Features: ● Specially modified polyamide 6, good closure up to IP50 ● Self-extinguishing, free of halogen and cadmium ● Temperature range: -40°C up to +105°C; short-term to +150°C ● Chemical resistance: To fuels, mineral oils, fats, alkalies, weak acids and bases etc.

Part No.	Conduit size NW	Conduit size metric	Inside Ø d1 [mm]	Outside Ø d2 [mm]	stat.** R [mm]	PU [m]
I-PACOF-07B	07	10	5, 9	10, 0	30	50
I-PACOF-10B	10	12	8, 5	12, 8	33	50
I-PACOF-12B	12	16	11, 0	15, 6	35	50
I-PACOF-17B	17	20	15, 5	21, 1	45	50
I-PACOF-23B	23	25	22, 1	28, 4	70	50
I-PACOF-29B	29	32	27, 2	34, 5	120	50
I-PACOF-36B	36	40	32, 0	42, 4	145	30
I-PACOF-48B	48	50	43, 9	51, 1	150	30
I-PACOF-70B	70	80	66, 0	80, 0	220	10

i I-PACOF - suitable for static use only!

**BLNO - Divisible, straight, metric**

In connection with slit PMA conduits and divisible PMA BLN lock nuts. For installation upon fully assembled cable looms or repair in machine and plant construction **Features:** ● Specially modified polyamide 6 ● IP54 - One-piece divisible fitting ● Self-extinguishing ● Free from halogens and cadmium ● Excellent impact strength ● Temperature range: -40°C up to +105°C; Short-term up to +160°C ● Special: Push-in installation of conduit into pre-installed fitting also possible ● Delivery: fitting delivered open

Part No.	Thread metric	Fits to conduit size:		Thread length [mm]	Total length [mm]
		NW	metric		
I-BLNO-M160	M16x1,5	12	16	13,0	36,5
I-BLNO-M162	M16x1,5	12	16	13,0	39,5
I-BLNO-M202	M20x1,5	12	16	13,0	39,5
I-BLNO-M207	M20x1,5	17	20	13,0	43,5
I-BLNO-M257	M25x1,5	17	20	14,0	44,5
I-BLNO-M253	M25x1,5	23	25	14,0	52,5
I-BLNO-M323	M32x1,5	23	25	17,0	56,0
I-BLNO-M329	M32x1,5	29	32	17,0	61,0
I-BLNO-M409	M40x1,5	29	32	21,0	65,0
I-BLNO-M406	M40x1,5	34	40	22,0	74,5
I-BLNO-M508	M50x1,5	48	50	22,0	80,5

BLN - Divisible lock nut, metric

In connection with PMA Divisible System fitting ● For installation upon fully assembled cable looms or repair in machine and plant construction **Features:** ● Specially modified polyamide 6 ● Excellent impact strength ● Simple installation ● Excellent chemical properties ● Free of halogen and cadmium ● Temperature range: -40°C up to +100°C; Short-term +130°C

Part No.	Thread metric	Fits to divisible system		Outside Ø [mm]	Width [mm]
I-BLN-M16	M16x1,5	I-BLNO-M160	I-BLNO-M162	21,5	8,0
I-BLN-M20	M20x1,5	I-BLNO-M202	I-BLNO-M207	29,0	8,0
I-BLN-M25	M25x1,5	I-BLNO-M257	I-BLNO-M253	35,5	9,0
I-BLN-M32	M32x1,5	I-BLNO-M323	I-BLNO-M329	44,5	12,0
I-BLN-M40	M40x1,5	I-BLNO-M409	I-BLNO-M406	53,5	15,0
I-BLN-M50	M40x1,5	I-BLNO-M508	—	69,5	15,0

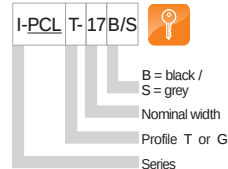




PMAFLEX conduits PCL - very flexible, medium

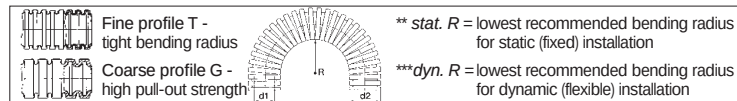
The PMAFLEX conduit type PCL is suitable for a wide range of applications in general machine building. Further more, this conduit type can be used in the vehicle building industry. The product is characterised by good weather resistance and applicability at low temperatures. **Features:** ● Specially modified polyamide 6/6.6 for cold impact ● Self-extinguishing ● Free of halogen and cadmium ● High impact strength also at low temperatures ● Temperature range: -50°C to 105°C; Short-term 150°C ● Chemical resistance: to fuels, mineral oils, fats, alkalies, weak acids and bases etc.

Part No. structure



Part No.	Part No.	Conduit size NW	Conduit size metric	Inside Ø d1 [mm]	Outside Ø d2 [mm]	stat.** R [mm]	VE [m]
black	grey						
I-PCLT-07B	I-PCLT-07S	7	10	6.2	10.0	15	50
I-PCLT-10B	I-PCLT-10S	10	12	9.6	13.0	20	50
I-PCLT-12B	I-PCLT-12S	12	16	12.0	15.8	30	50
I-PCLT-17B	I-PCLT-17S	17	20	16.2	21.2	40	50
I-PCLT-23B	I-PCLT-23S	23	25	22.6	28.5	45	50
I-PCLT-29B	I-PCLT-29S	29	32	29.0	34.5	55	50
I-PCLT-36B	I-PCLT-36S	36	40	36.5	42.5	60	30
I-PCLT-48B	I-PCLT-48S	48	50	47.5	54.5	70	30
I-PCLG-17B	I-PCLG-17S	17	20	15.3	21.2	40	50
I-PCLG-23B	I-PCLG-23S	23	25	21.9	28.5	45	50
I-PCLG-29B	I-PCLG-29S	29	32	27.6	34.5	55	50
I-PCLG-36B	I-PCLG-36S	36	40	36.0	42.5	60	30
I-PCLG-48B	I-PCLG-48S	48	50	47.0	54.5	70	30
I-PCLG-56B	I-PCLG-56S	56	68	56.3	67.2	130	30
I-PCLG-70B	I-PCLG-70S	70	80	67.5	80.0	160	30
I-PCLG-95B	I-PCLG-95S	95	106	91.5	106.0	210	30
I-PCLG-125B	I-PCLG-125S	125	146	126.5	146.5	450	6

i I-PCLT/PCLG - recommended for static use!
(moderate dynamic application possible)

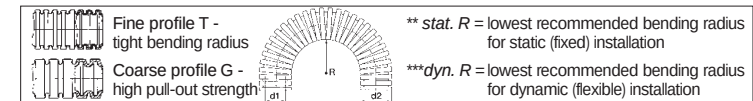


PMAFLEX conduits VOH - pliable, very heavy

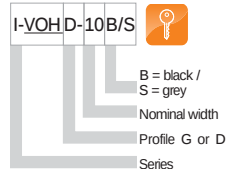
The robust construction of PMAFLEX VOH conduit lends it outstanding impact and pull-out resistance. In the US market, this conduit type can also be used for exterior applications in machinery and installations (from 17 mm inside diameter). This product offers the greatest possible mechanical protection with good flammability properties. **Features:** ● Specially modified polyamide 6 ● Very good self-extinguishing properties ● Free of halogen and cadmium ● High impact strength and pull-out resistance ● High stiffness and compression strength ● Temperature range: -40°C to 105°C; Short-term 150°C ● Chemical resistance: to fuels, mineral oils, fats, alkalies, weak acids and bases etc.

Part No.	Part No.	Conduit size NW	Conduit size metric	Inside Ø d1 [mm]	Outside Ø d2 [mm]	stat.** R [mm]	VE [m]
black	grey						
I-VOHD-07B	I-VOHD-07S	7	10	5.8	10.0	20	100
I-VOHD-10B	I-VOHD-10S	10	12	9.0	13.0	25	50
I-VOHD-12B	I-VOHD-12S	12	16	11.6	15.8	30	50
I-VOHD-17B	I-VOHD-17S	17	20	14.5	21.0	40	50
I-VOHD-23B	I-VOHD-23S	23	25	21.1	28.5	50	50
I-VOHD-29B	I-VOHD-29S	29	32	26.6	34.5	60	50
I-VOHD-36B	I-VOHD-36S	36	40	35.0	42.5	70	30
I-VOHD-48B	I-VOHD-48S	48	50	46.5	54.5	80	30
I-VOHD-56B	I-VOHD-56S	56	68	55.5	67.2	135	10
I-VOHD-70B	I-VOHD-70S	70	80	67.0	80.0	200	10
I-VOHD-95B	I-VOHD-95S	95	106	90.5	106.0	300	10
I-VOHD-125B	I-VOHD-125S	125	146	126.0	146.5	480	6

i I-VOHD/VOH - suitable for static use only!



Part No. structure

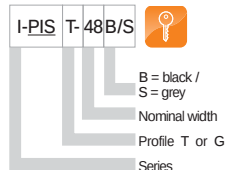




PMAFLEX conduits PIS/PIH - highly flexible, medium

These highly flexible products are used primarily in automation applications and for connections subject to intense movements in general machinery construction. Their outstanding material properties make these conduits especially suitable for outdoor applications where they are exposed to intensive sunlight (UV). **Features:** ● Specially modified polyamide 12 ● PIS: medium-wall (nominal width 07 to 48) - PIH: heavy-wall (nominal width 56 to 125) ● Self-extinguishing ● Free of halogen and cadmium ● Good mechanical properties also at low temperatures ● Temperature range: -50°C to 95°C; Short-term 150°C ● Chemical resistance: To fuels, mineral oils, fats, alkalies, acids and bases etc.

Part No. structure

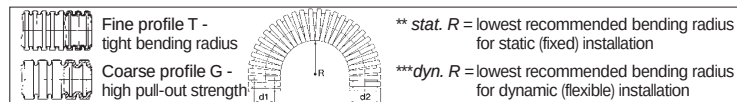


Part No.	Part No.	Conduit size NW	Conduit size metric	Inside Ø d1 [mm]	Outside Ø d2 [mm]	stat.**/dyn.*** R [mm]	VE [m]
black	grey						
I-PIST-07B	I-PIST-07S	7	10	6.2	10.0	15 / 40	50
I-PIST-10B	I-PIST-10S	10	12	9.6	13.0	20 / 50	50
I-PIST-12B	I-PIST-12S	12	16	11.9	15.8	25 / 65	50
I-PIST-17B	I-PIST-17S	17	20	16.4	21.1	30 / 65	50
I-PIST-23B	I-PIST-23S	23	25	22.6	28.4	35 / 90	50
I-PIST-29B	I-PIST-29S	29	32	29.0	34.3	45 / 110	50
I-PIST-36B	I-PIST-36S	36	40	36.5	42.5	60 / 165	30
I-PIST-48B	I-PIST-48S	48	50	47.5	54.5	70 / 180	30
I-PISG-17B	–	17	20	15.2	21.1	30 / 80	50
I-PISG-23B	I-PISG-23S	23	25	21.7	28.4	40 / 100	50
I-PISG-29B	I-PISG-29S	29	32	27.4	34.3	50 / 120	50
I-PISG-36B	I-PISG-36S	36	40	35.8	42.3	60 / 180	30
I-PISG-48B	I-PISG-48S	48	50	46.7	54.2	70 / 200	30
I-PIHG-56B	I-PIHG-56S	56	68	56.3	67.2	110 / 270	30
I-PIHG-70B	I-PIHG-70S	70	80	67.2	79.6	150 / 350	30
I-PIHG-95B	I-PIHG-95S	95	106	91.3	106.0	170 / 450	30
I-PIHG-125BI-PIHG-125S		125	146	126.5	146.5	350 / 580	20



I-PIS/PIH -

Recommended for highly flexible applications!



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

*** dyn. R = lowest recommended bending radius for dynamic (flexible) installation

PMAFLEX conduits CYL - very flexible, medium

PMA CYL ECONOMY conduit exhibits very good flexibility and is also suitable for low-temperature applications. These conduits are used primarily in construction of machinery and equipment.

Features: ● Specially modified polyamide 6/6.6 for cold impact ● Self-extinguishing, free of halogen and cadmium ● High impact strength also at low temperatures ● Temperature range: -40°C to 105°C; Short-term 150°C ● Chemical resistance: to fuels, mineral oils, fats, alkalies, weak acids and bases etc.

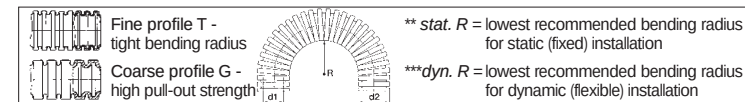


Part No.	Part No.	Conduit size NW	Conduit size metric	Inside Ø d1 [mm]	Outside Ø d2 [mm]	stat.** R [mm]	VE [m]
black	grey						
I-CYLT-07B	I-CYLT-07S	7	10	6.2	10.0	15	50
I-CYLT-10B	I-CYLT-10S	10	12	9.6	13.0	20	50
I-CYLT-12B	I-CYLT-12S	12	16	12.0	15.8	30	50
I-CYLT-17B	I-CYLT-17S	17	20	16.2	21.2	40	50
I-CYLT-23B	I-CYLT-23S	23	25	22.6	28.5	40	50
I-CYLT-29B	I-CYLT-29S	29	32	29.0	34.5	50	50
I-CYLT-36B	I-CYLT-36S	36	40	36.5	42.5	60	30
I-CYLT-48B	I-CYLT-48S	48	50	47.5	54.5	70	30
I-CYLG-23B	I-CYLG-23S	23	25	21.9	28.5	45	50
I-CYLG-29B	I-CYLG-29S	29	32	27.6	34.5	55	50
I-CYLG-36B	I-CYLG-36S	36	40	36.0	42.5	60	30
I-CYLG-48B	I-CYLG-48S	48	50	47.0	54.5	70	30
I-CYLG-56B	–	56	68	56.3	67.2	120	30
I-CYLG-70B	–	70	80	68.0	80.0	160	30
I-CYLG-95B	–	95	106	91.9	106.0	210	10
I-CYLG-125B	–	125	146	126.5	146.5	450	6



I-CYLT/CYLG - recommended for static use!

(moderate dynamic application possible)



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

*** dyn. R = lowest recommended bending radius for dynamic (flexible) installation



IP66 - static, IP54 dynamic

- One piece fitting, sealing by cone
- Easy "push-in" installation
- Preassembled safety clip AFN2
- Fits any type of conduit profile (T and G)
- Excellent pull-out strength
- Re-opening for safety reasons only possible with a screwdriver
- Clip preassembled in all IP66 connectors



Installation



IP68 - static, IP67 dynamic

- High sealing through additional seal cap
- For highest dynamic applications
- Fits any type of conduit profile (T and G)
- Excellent pull-out strength
- Re-opening for safety reasons only possible with a screwdriver



Installation



*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.

PMAFIX - Connectors

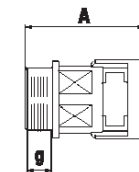
The designation PMAFIX describes a very large range of connectors for PMA conduits with the patented PMA safety clip system. Connectors are available for ingress protection IP66 and IP68. IP66 connectors are fitted with a preinstalled universal safety clip which ensures a quick "push-in" installation. IP68 connectors for increased requirements will be delivered with a special conduit seal cap.

Table 1 - PMAFIX / PMAFLEX conduit code

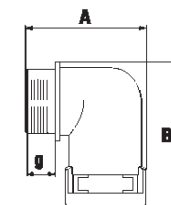
Nominal width	UK sizes	PMA code
7	10	M
10	12	0
12	16	2
17	20	7
23	25	3
29	32	9
36	40	6
48	50	8

Table 2 - Thread codes

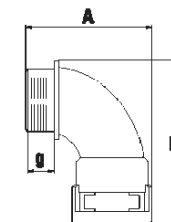
Thread metric	PMA code	Thread PG	PMA code
M12 x 1.5	M12	PG07	P07
M16 x 1.5	M16	PG09	P09
M20 x 1.5	M20	PG11	P11
M25 x 1.5	M25	PG13.5	P13
M32 x 1.5	M32	PG16	P16
M40 x 1.5	M40	PG21	P21
M50 x 1.5	M50	PG29	P29
M63 x 1.5	M63	PG36	P36
		PG42	P42
		PG48	P48



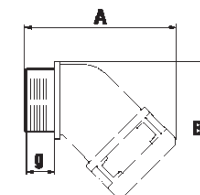
g = Thread length
A = Total length



g = Thread length
A x B = External dim.



g = Thread length
A x B = External dim.

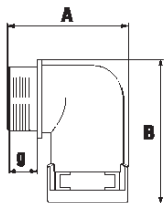


g = Thread length
A x B = External dim.



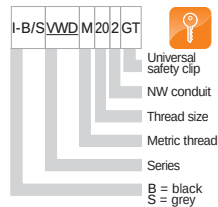
PMAFIX Connectors VW - 90° elbow, metric & PG

These PMAFIX connectors are used in a wide range of applications. Together with PMAFLEX conduits they offer the highest grade of safety and sealing. **Features:** ● High-grade formulated polyamide ● Self-extinguishing, free of halogen, phosphor and cadmium ● Excellent impact strength ● Temperature range: -40°C to 105°C; Short-term 160°C ● Content of delivery IP66: Fitting with preassembled universal safety clips (AFN2), IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4).

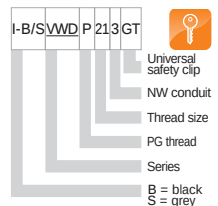


g = Thread length
A x B = External dim.

Part No. structure metric



Part No. structure PG



Part No.	Part No.	Thread	Fits to conduit size:		Thread	External
IP66	IP68	metric	NW	metric	length [mm]	dim. [mm]
I-VWD-M12MGT	I-VWV-M12M	M12 x 1.5	7	10	11.0	32.0 x 35.0
I-VWD-M120GT	I-VWV-M120	M12 x 1.5	10	12	11.0	34.0 x 39.5
I-VWD-M160GT	I-VWV-M160	M16 x 1.5	10	12	11.0	34.0 x 40.5
I-VWD-M162GT	I-VWV-M162	M16 x 1.5	12	16	11.0	38.5 x 46.0
I-VWD-M202GT	I-VWV-M202	M20 x 1.5	12	16	11.0	38.5 x 47.5
I-VWD-M207GT	I-VWV-M207	M20 x 1.5	17	20	11.0	43.5 x 58.5
I-VWD-M253GT	I-VWV-M253	M25 x 1.5	23	25	12.0	54.0 x 65.0
I-VWD-M329GT	I-VWV-M329	M32 x 1.5	29	32	15.0	64.5 x 73.0
I-VWD-M406GT	I-VWV-M406	M40 x 1.5	36	40	19.0	78.0 x 96.0
I-VWD-M508GT	I-VWV-M508	M50 x 1.5	48	50	19.0	91.5 x 106.0

Part No.	Part No.	Thread	Fits to conduit size:		Thread	External
IP66	IP68	metric	NW	metric	length [mm]	dim. [mm]
I-VWD-P07MGT-11	I-VWV-P07M	7	7	10	11.0	32.0 x 35.0
I-VWD-P070GT-11	I-VWV-P070	7	10	12	11.0	34.0 x 39.5
I-VWD-P09MGT-11	-	9	7	10	11.0	32.0 x 36.5
I-VWD-P090GT-11	I-VWV-P090	9	10	12	11.0	34.0 x 39.5
I-VWD-P092GT-11	I-VWV-P092	9	12	16	11.0	38.5 x 44.5
I-VWD-P11MGT-11	-	11	7	10	11.0	32.0 x 38.0
I-VWD-P110GT-11	I-VWV-P110	11	10	12	11.0	34.0 x 41.0
I-VWD-P112GT-11	I-VWV-P112	11	12	16	11.0	38.5 x 46.0
I-VWD-P13MGT-11	-	13.5	7	10	11.0	32.0 x 39.5
I-VWD-P130GT-11	I-VWV-P130	13.5	10	12	11.0	34.0 x 42.5
I-VWD-P132GT-11	I-VWV-P132	13.5	12	16	11.0	38.5 x 47.5
I-VWD-P137GT-11	I-VWV-P137	13.5	17	20	11.0	43.5 x 58.5
I-VWD-P167GT-11	I-VWV-P167	16	17	20	11.0	43.5 x 58.5
I-VWD-P213GT	I-VWV-P213	21	23	25	11.0	54.0 x 67.0
I-VWD-P299GT	I-VWV-P299	29	29	32	12.0	61.5 x 74.5
I-VWD-P366GT	I-VWV-P366	36	36	40	13.0	72.0 x 98.0
I-VWD-P488GT	I-VWV-P488	48	48	50	13.0	85.5 x 111.0

= Replace with "B" to order black or "S" to order grey

For the sizes NW 17 to NW 48 curved elbows of type VB are available.



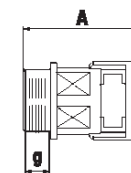
PMAFIX Connectors VN - straight, metric & PG

These PMAFIX connectors are used in a wide range of applications. Together with PMAFLEX conduits they offer the highest grade of safety and sealing. **Features:** ● High-grade formulated polyamide ● Self-extinguishing, free of halogen, phosphor and cadmium ● Excellent impact strength ● Temperature range: -40°C to 105°C; Short-term bis 160°C ● Content of delivery IP66: Fitting with preassembled universal safety clips (AFN2), IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

Part No.	Part No.	Thread	Fits to conduit size:		Thread	Total
IP66	IP68	metric	NW	metric	length [mm]	length [mm]
I-VND-M12MGT	I-VNV-M12M	M12 x 1.5	7	10	11.0	34.5
I-VND-M120GT	I-VNV-M120	M12 x 1.5	10	12	11.0	36.5
I-VND-M160GT	I-VNV-M160	M16 x 1.5	10	12	11.0	36.5
I-VND-M162GT	I-VNV-M162	M16 x 1.5	12	16	11.0	39.5
I-VND-M202GT	I-VNV-M202	M20 x 1.5	12	16	11.0	39.5
I-VND-M207GT	I-VNV-M207	M20 x 1.5	17	20	11.0	47.5
I-VND-M257GT	I-VNV-M257	M25 x 1.5	17	20	12.0	48.5
I-VND-M253GT	I-VNV-M253	M25 x 1.5	23	25	12.0	52.0
I-VND-M323GT	I-VNV-M323	M32 x 1.5	23	25	15.0	55.5
I-VND-M329GT	I-VNV-M329	M32 x 1.5	29	32	15.0	56.0
I-VND-M409GT	I-VNV-M409	M40 x 1.5	29	32	19.0	60.0
I-VND-M406GT	I-VNV-M406	M40 x 1.5	36	40	19.0	72.5
I-VND-M506GT	I-VNV-M506	M50 x 1.5	36	40	19.0	72.0
I-VND-M508GT	I-VNV-M508	M50 x 1.5	48	50	19.0	72.5
I-VND-M638GT	I-VNV-M638	M63 x 1.5	48	50	19.0	72.0

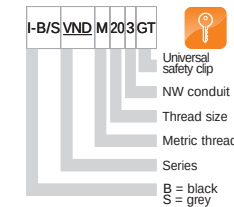
Part No.	Part No.	Thread	Fits to conduit size:		Thread	Total
IP66	IP68	PG	NW	metric	length [mm]	length [mm]
I-VND-P07MGT-11	I-VNV-P07M	7	7	10	11.0	34.5
I-VND-P070GT-11	I-VNV-P070	7	10	12	11.0	36.5
I-VND-P072GT-11	-	7	12	16	11.0	39.0
I-VND-P09MGT-11	I-VNV-P09M	9	7	10	11.0	34.5
I-VND-P090GT-11	I-VNV-P090	9	10	12	11.0	36.5
I-VND-P092GT-11	I-VNV-P092	9	12	16	11.0	39.0
I-VND-P097GT-11	I-VNV-P097	9	17	20	11.0	47.5
I-VND-P11MGT-11	I-VNV-P11M	11	7	10	11.0	34.5
I-VND-P110GT-11	I-VNV-P110	11	10	12	11.0	36.5
I-VND-P112GT-11	I-VNV-P112	11	12	16	11.0	39.0
I-VND-P117GT-11	I-VNV-P117	11	17	20	11.0	47.5
I-VND-P13MGT-11	-	13.5	7	10	11.0	34.5
I-VND-P130GT-11	I-VNV-P130	13.5	10	12	11.0	36.5
I-VND-P132GT-11	I-VNV-P132	13.5	12	16	11.0	39.0
I-VND-P137GT-11	I-VNV-P137	13.5	17	20	11.0	47.5
I-VND-P160GT-11	-	16	10	12	11.0	36.5
I-VND-P162GT-11	I-VNV-P162	16	12	16	11.0	39.0
I-VND-P167GT-11	I-VNV-P167	16	17	20	11.0	47.5
I-VND-P163GT-11	I-VNV-P163	16	23	25	11.0	51.0
I-VND-P213GT	I-VNV-P213	21	23	25	12.0	52.0
I-VND-P299GT	I-VNV-P299	29	29	32	12.0	53.0
I-VND-P296GT	I-VNV-P296	29	36	40	12.0	67.5
I-VND-P366GT	I-VNV-P366	36	36	40	13.0	66.0
I-VND-P368GT	-	36	48	50	13.0	68.5
I-VND-P428GT	I-VNV-P428	42	48	50	13.0	68.5
I-VND-P488GT	I-VNV-P488	48	48	50	13.0	66.5

= Replace with "B" to order black or "S" to order grey

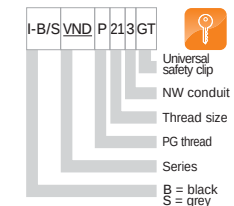


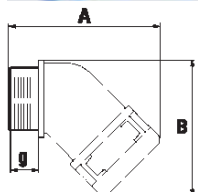
g = Thread length
A = Total length

Part No. structure metric



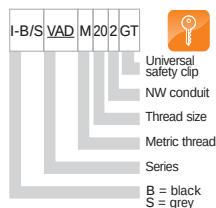
Part No. structure PG



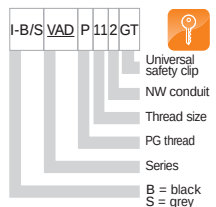


g = Thread length
A x B = External dim.

Part No. structure metric



Part No. structure PG



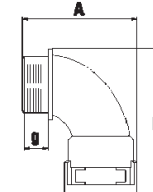
PMAFIX Connectors VA - 45° elbow, metric & PG

These PMAFIX connectors are used in a wide range of applications. Together with PMAFLEX conduits they offer the highest grade of safety and sealing. **Features:** ● High-grade formulated polyamide, thread made of nickel-plated brass ● Self-extinguishing, free of halogen, phosphor and cadmium ● Excellent impact strength ● Temperature range: -40°C to 105°C; Short-term to 160°C ● Content of delivery IP66: Fitting with preassembled universal safety clips (AFN2), IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

Part No.	Part No.	Thread	Fits to conduit size:		Thread	External
IP66	IP68	metric	NW	metric	length [mm]	dim. [mm]
I-□ VAD-M120GT	-	M12 x 1.5	10	12	11.0	43.5 x 37.0
I-□ VAD-M160GT	I-□ VAV-M160	M16 x 1.5	10	12	11.0	43.5 x 38.0
I-□ VAD-M162GT	I-□ VAV-M162	M16 x 1.5	12	16	11.0	48.0 x 40.0
I-□ VAD-M202GT	I-□ VAV-M202	M20 x 1.5	12	16	11.0	48.0 x 41.5
I-□ VAD-M207GT	I-□ VAV-M207	M20 x 1.5	17	20	11.0	55.5 x 51.5
I-□ VAD-M253GT	I-□ VAV-M253	M25 x 1.5	23	25	12.0	65.0 x 58.5
I-□ VAD-M329GT	I-□ VAV-M329	M32 x 1.5	29	32	15.0	73.5 x 66.5
I-□ VAD-M406GT	I-□ VAV-M406	M40 x 1.5	36	40	19.0	92.5 x 85.5
I-□ VAD-M506GT	I-□ VAV-M506	M50 x 1.5	36	40	19.0	100.0 x 89.5
I-□ VAD-M508GT	I-□ VAV-M508	M50 x 1.5	48	50	19.0	100.0 x 96.0
I-□ VAD-M638GT	I-□ VAV-M638	M63 x 1.5	48	50	19.0	100.0 x 104.0

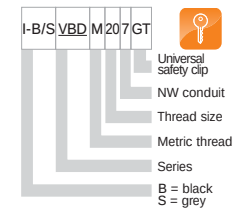
Part No.	Part No.	Thread	Fits to conduit size:		Thread	External
IP66	IP68	PG	NW	metric	length [mm]	dim. [mm]
I-□ VAD-P090GT	I-□ VAV-P090	9	10	12	11.0	43.5 x 37.0
I-□ VAD-P112GT	I-□ VAV-P112	11	12	16	11.0	48.0 x 40.0
I-□ VAD-P132GT	I-□ VAV-P132	13.5	12	16	11.0	48.0 x 41.5
I-□ VAD-P137GT	I-□ VAV-P137	13.5	17	20	11.0	55.0 x 50.0
I-□ VAD-P167GT	I-□ VAV-P167	16	17	20	11.0	55.0 x 51.5
I-□ VAD-P213GT	I-□ VAV-P213	21	23	25	12.0	67.0 x 59.0
I-□ VAD-P299GT	I-□ VAV-P299	29	29	32	12.0	69.0 x 67.0
I-□ VAD-P366GT	I-□ VAV-P366	36	36	40	13.0	86.0 x 86.0
I-□ VAD-P488GT	I-□ VAV-P488	48	48	50	13.0	93.0 x 99.0

□ = Replace with "B" to order black or "S" to order grey

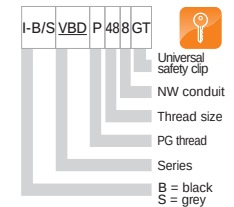


g = Thread length
A x B = External dim.

Part No. structure metric



Part No. structure PG



PMAFIX Connectors VB - 90° curved elbow, metric & PG

These PMAFIX connectors are used in a wide range of applications. Together with PMAFLEX conduits they offer the highest grade of safety and sealing. **Features:** ● 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 ● Content of delivery IP66: Fitting with preassembled universal safety clips (AFN2), IP68: Fitting with oval clips (OVN2), conduit and thread seal (NVN3, SVN4)

Part No.	Part No.	Thread	Fits to conduit size:		Thread	External
IP66	IP68	metric	NW	metric	length [mm]	dim. [mm]
I-□ VBD-M207GT	I-□ VBV-M207	M20 x 1.5	17	20	11.0	47.5 x 73.0
I-□ VBD-M257GT	I-□ VBV-M257	M25 x 1.5	17	20	12.0	48.5 x 76.0
I-□ VBD-M253GT	I-□ VBV-M253	M25 x 1.5	23	25	12.0	57.5 x 83.0
I-□ VBD-M323GT	I-□ VBV-M323	M32 x 1.5	23	25	15.0	61.0 x 87.5
I-□ VBD-M329GT	I-□ VBV-M329	M32 x 1.5	29	32	15.0	70.5 x 93.0
I-□ VBD-M409GT	I-□ VBV-M409	M40 x 1.5	29	32	19.0	74.5 x 98.5
I-□ VBD-M406GT	I-□ VBV-M406	M40 x 1.5	36	40	19.0	85.0 x 121.0
I-□ VBD-M506GT	I-□ VBV-M506	M50 x 1.5	36	40	19.0	85.0 x 125.0
I-□ VBD-M508GT	I-□ VBV-M508	M50 x 1.5	48	50	19.0	98.5 x 130.0
I-□ VBD-M638GT	I-□ VBV-M638	M63 x 1.5	48	50	19.0	98.5 x 138.0

Part No.	Part No.	Thread	Fits to conduit size:		Thread	External
IP66	IP68	PG	NW	metric	length [mm]	dim. [mm]
I-□ VBD-P167GT	I-□ VBV-P167	16	17	20	11.0	47.4 x 73.0
I-□ VBD-P213GT	I-□ VBV-P213	21	23	25	12.0	57.5 x 85.0
I-□ VBD-P299GT	I-□ VBV-P299	29	29	32	12.0	67.5 x 96.0
I-□ VBD-P366GT	I-□ VBV-P366	36	36	40	13.0	79.0 x 123.0
I-□ VBD-P488GT	I-□ VBV-P488	48	48	50	13.0	92.5 x 135.0

□ = Replace with "B" to order black or "S" to order grey

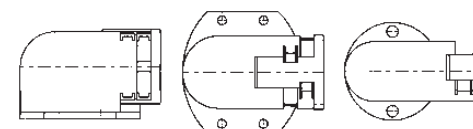
For smaller conduit sizes NW 07 to NW 12 appropriate standard elbows of type VW are available

PMAFIX Connectors VO - flange 90°

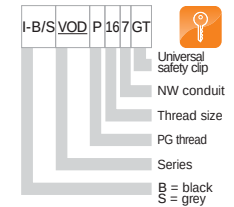
These PMAFIX connectors are used in a wide range of applications. Together with PMAFLEX conduits they offer the highest grade of safety and sealing. **Features:** ● IP66: Fitting with preassembled universal safety clips (AFN2), flange seal (OR) ● IP68: Fitting with oval clips (OVN2), conduit and flange seal (NVN3, OR)

Part No.	Part No.	Fits to conduit size:		Dimensions		Fixing
IP66	IP68	size NW	size metric	width x length x depth		screws
I-□ VOD-P167GT	I-□ VOV-P167	17	20	45.0 x 66.0 x 34.0		2 x M5
I-□ VOD-P213GT	I-□ VOV-P213	23	25	63.0 x 70.0 x 42.0		2 x M6
I-□ VOD-P299GT	I-□ VOV-P299	29	32	67.0 x 78.0 x 48.0		4 x M6
I-□ VOD-P366GT	I-□ VOV-P366	36	40	85.0 x 102.0 x 64.0		4 x M6
I-□ VOD-P488GT	I-□ VOV-P488	48	50	86.0 x 119.0 x 76.0		4 x M6

□ = Replace with "B" to order black or "S" to order grey



Part No. structure PG

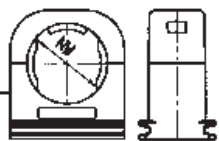




PMAFIX FH-0 - one-piece system supports

The one-piece PMACLIP system support is designed for fixation of PMAFLEX conduits. This product can be used in all machine and installation applications for easy assembly of the PMA system. **Features:** ● High-grade formulated polyamide ● Self-extinguishing, free of halogen, phosphor and cadmium ● Excellent impact strength ● Temperature range: -40°C to 105°C; Short-term 160°C

Part No. black	Part No. grey	Fits to conduit size:		Dimensions width x length x depth	Fixing screws
		NW	metric		
I-BFH-07-0	I-SFH-07-0	7	10	17.0 x 21.5 x 20.0	1 x M4
I-BFH-10-0	I-SFH-10-0	10	12	20.5 x 24.5 x 20.0	1 x M5
I-BFH-12-0	I-SFH-12-0	12	16	24.0 x 27.0 x 20.0	1 x M5
I-BFH-17-0	I-SFH-17-0	17	20	30.0 x 34.0 x 20.0	1 x M6
I-BFH-23-0	I-SFH-23-0	23	25	38.5 x 42.0 x 20.0	1 x M6
I-BFH-29-0	I-SFH-29-0	29	32	45.5 x 48.0 x 20.0	1 x M6
I-BFH-36-0	I-SFH-36-0	36	40	55.5 x 56.0 x 20.0	1 x M6
I-BFH-48-0	I-SFH-48-0	48	50	67.5 x 68.0 x 20.0	1 x M6

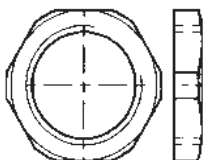


PMA MN - hexagon lock nuts, metric & PG

These hexagon lock nuts are suitable for a wide range of applications. High torque guarantees a safe connection of the system. **Features:** ● Polyamide glass fiber reinforced ● Temperature range: -40°C to 105°C; Short-term 150°C

Part No. black	Part No. grey	Fits to Thread: metric	Wrench size	Dimensions height
I-BMN-M12	I-GMN-M12	M12 x 1.5	17.0	5.0
I-BMN-M16	I-GMN-M16	M16 x 1.5	22.0	5.0
I-BMN-M20	I-GMN-M20	M20 x 1.5	27.0	6.0
I-BMN-M25	I-GMN-M25	M25 x 1.5	32.0	6.0
I-BMN-M32	I-GMN-M32	M32 x 1.5	41.0	7.0
I-BMN-M40	I-GMN-M40	M40 x 1.5	50.0	7.0
I-BMN-M50	I-GMN-M50	M50 x 1.5	60.0	8.0
I-BMN-M63	I-GMN-M63	M63 x 1.5	75.0	8.0

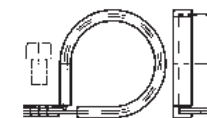
Part No. black	Part No. grey	Fits to Thread: PG	Wrench size	Dimensions height
I-BMN-07	I-GMN-07	7	19.0	5.0
I-BMN-09	I-GMN-09	9	22.0	5.0
I-BMN-11	I-GMN-11	11	24.0	5.0
I-BMN-13	I-GMN-13	13.5	27.0	6.0
I-BMN-16	I-GMN-16	16	30.0	6.0
I-BMN-21	I-GMN-21	21	36.0	7.0
I-BMN-29	I-GMN-29	29	46.0	7.0
I-BMN-36	I-GMN-36	36	60.0	8.0
I-BMN-48	I-GMN-48	48	70.0	8.0



PMA SGB - Conduit clamps

These conduit clamps are used for the mounting and smooth connection to the PMA conduits in the general machine and installation constructions. They are especially suitable for the mounting of static conduits. **Features:** ● Galvanized steel according to DIN 3016 ● Elastomer free of halogen ● Temperature range: -50°C to 105°C

Part No.	Fits to: size NW	Fits to: size metric	Dimensions Width [mm]	Fixing screw
I-SGB-07	7	10	13.0	1 x M4
I-SGB-09	10	12	13.0	1 x M4
I-SGB-11	12	16	13.0	1 x M4
I-SGB-16	17	20	16.0	1 x M5
I-SGB-21	23	25	16.0	1 x M5
I-SGB-29	29	32	19.0	1 x M6
I-SGB-36	36	40	19.0	1 x M6
I-SGB-48	48	50	19.0	1 x M6

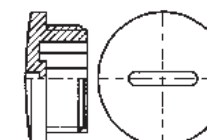


PMA 514 - Plug screws, metric & PG

These plug screws are suitable for an accurate termination where no thread holes in casing and distribution boxes are needed. **Features:** ● Product with metric thread: PA-GF. Product with PG thread: PS ● Free of halogen, phosphor and cadmium ● IP54 ● Temperature range: -20°C to 60°C; Short-term 100°C

Part No.	Fits to Thread metric	Outside Ø [mm]	Total length [mm]	Thread length [mm]
I-514-M12	M12 x 1.5	15.0	8.0	6.0
I-514-M16	M16 x 1.5	20.0	9.0	6.0
I-514-M20	M20 x 1.5	24.0	9.5	6.0
I-514-M25	M25 x 1.5	30.0	11.5	8.0
I-514-M32	M32 x 1.5	37.0	12.0	8.0
I-514-M40	M40 x 1.5	46.0	13.0	8.0
I-514-M50	M50 x 1.5	56.0	15.0	10.0
I-514-M63	M63 x 1.5	70.0	17.0	12.0

Part No.	Fits to Thread PG	Outside Ø [mm]	Total length [mm]	Thread length [mm]
I-514-07	7	15.0	8.0	6.0
I-514-09	9	19.0	9.5	6.5
I-514-11	11	22.0	10.0	6.5
I-514-13	13.5	25.0	10.0	6.5
I-514-16	16	27.0	10.0	6.5
I-514-21	21	33.0	12.0	8.0
I-514-29	29	44.0	11.5	8.0
I-514-36	36	55.0	14.0	10.0
I-514-48	48	69.0	16.0	12.0





PMAFLEX | Conduits and Accessories

Standard Corrugated Conduits



Products		PCL PA6	CYL PA6	VOH PA6	PIS PA12	FH
Conduit size:		Very flexible	Very flexible	Flexible,	Highly flexible	PMACLIP -
metric	NW	medium wall	medium wall	very heavy	medium wall	one-piece
		conduits	conduits	conduits	Conduits	system support
10	07	PCLT-07*	–	VDHD-07*	–	*FH-07-0
12	10	PCLT-10*	–	VOHD-10*	–	*FH-10-0
16	12	PCLT-12*	–	VOHD-12*	–	*FH-12-0
20	17	PCLT-17*	PCLG-17*	CYL-17*	–	*FH-17-0
25	23	PCLT-23*	PCLG-23*	CYL-23*	–	*FH-23-0
32	29	PCLT-29*	PCLG-29*	CYL-29*	–	*FH-29-0
40	36	PCLT-36*	PCLG-36*	CYL-36*	–	*FH-36-0
50	48	PCLT-48*	PCLG-48*	CYL-48*	–	*FH-48-0

* = replace with "B" for black or "S" for grey

T or D = fine profile

G = coarse profile

Standard Conduits



Products		PCL PA6	CYL PA6	VOH PA6	PIS PA12	FH
Conduit size:		Very flexible	Very flexible	Flexible,	Highly flexible	PMACLIP -
metric	NW	medium wall	medium wall	very heavy	medium wall	one-piece
		conduits	conduits	conduits	Conduits	system support
10	07	PCLT-07*	–	VDHD-07*	–	*FH-07-0
12	10	PCLT-10*	–	VOHD-10*	–	*FH-10-0
16	12	PCLT-12*	–	VOHD-12*	–	*FH-12-0
20	17	PCLT-17*	PCLG-17*	CYL-17*	–	*FH-17-0
25	23	PCLT-23*	PCLG-23*	CYL-23*	–	*FH-23-0
32	29	PCLT-29*	PCLG-29*	CYL-29*	–	*FH-29-0
40	36	PCLT-36*	PCLG-36*	CYL-36*	–	*FH-36-0
50	48	PCLT-48*	PCLG-48*	CYL-48*	–	*FH-48-0

* = replace with "B" for black or "S" for grey

T or D = fine profile

G = coarse profile

JUMBO Conduits PMAGRIP



Products		PCLG PA6	PIHG PA12	BGG	BGO	SGS
Conduit size:		Very flexible	Very flexible	PMAGRIP-	PMAGRIP-	PMAGRIP-
NW		medium wall	medium wall	straight	90° angle	Conduit clamps
56		PCLG-56*	PIHG-56*	*GG-56	*GO-56	SGS-56
70		PCLG-70*	PIHG-70*	*GG-70	*GO-70	SGS-70
95		PCLG-95*	PIHG-95*	*GG-95	*GO-95	SGS-95
125		PCLG-125*	PIHG-125*	*GG-125	–	SGS-125

* = replace with "B" for black or "S" for grey

T or D = fine profile

G = coarse profile

PMAFIX | Connectors and Accessories



PMAFIX



Products	IP66 - VN	IP66 - VA	IP66 - VW	IP66 - VB	IP68 - VNZ	MN
Thread type	PMAFIX straight	PMAFIX 45° angle	PMAFIX 90° angle	PMAFIX 90° elbow	Straight with strain relief	PMA hexagon lock nuts
M12x1.5	*VND-M12MGT	–	*VWD-M12MGT	–	–	*MN-M12
M12x1.5	*VND-M120GT	*VAD-M120GT	*VWD-M120GT	–	–	*MN-M12
M16x1.5	*VND-M162GT	*VAD-M162GT	*VWD-M162GT	–	*VNZ-M162S	*MN-M16
M20x1.5	*VND-M207GT	*VAD-M207GT	*VWD-M207GT	*VBD-M207GT	*VNZ-M207S	*MN-M20
M25x1.5	*VND-M253GT	*VAD-M253GT	*VWD-M253GT	*VBD-M253GT	*VNZ-M253S	*MN-M25
M32x1.5	*VND-M329GT	*VAD-M329GT	*VWD-M329GT	*VBD-M329GT	*VNZ-M329S	*MN-M32
M40x1.5	*VND-M406GT	*VAD-M406GT	*VWD-M406GT	*VBD-M406GT	*VNZ-M406S	*MN-M40
M50x1.5	*VND-M508GT	*VAD-M508GT	*VWD-M508GT	*VBD-M508GT	*VNZ-M508S	*MN-M50

* = replace with "B" for black or "S" for grey

PMAFIX



Products	IP66 - VOD	IP66 - VY	IP66 - FT/VT	IP66 - FV	SGB
Conduit size:	PMAFIX flange 90°	PMAFIX Y-distribution piece	PMAFIX T-distribution piece	PMAFIX V-distribution piece	PMAFIX-Conduit clamps
metric					
10	07	–	–	–	SGB-07
12	10	–	*VYD-100707GT	*FTD-101010GT	*FVD-100707GT
16	12	–	*VYD-121010GT	*FTD-121212GT	*FVD-121010GT
20	17	*VOD-P167GT	*VYD-171212GT	*FTD-171717GT	*FVD-171212GT
25	23	*VOD-P213GT	*VYD-231717GT	*FTD-232323GT	*FVD-231717GT
32	29	*VOD-P299GT	*VYD-292323GT	*FTD-292929GT	–
40	36	*VOD-P366GT	*VYD-362929GT	*FTD-363636GT	–
50	48	*VOD-P488GT	*VYD-483636GT	–	–

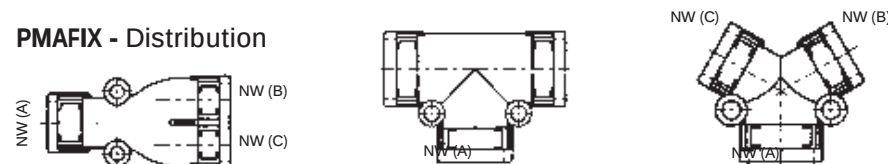
* = replace with "B" for black or "S" for grey

PMAFIX - Order example

XXXX-10 07 07 XX



PMAFIX - Distribution



Please note: Since 2003 are only complete packaging units available on request!