

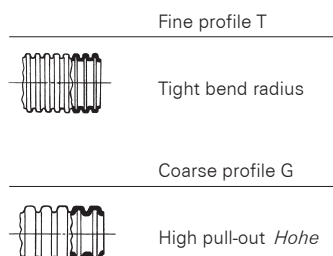
Conduit very flexible
medium and heavy-duty

PMAFLEX PIS/PIH C US

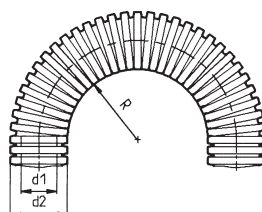
application	• for dynamic applications in robotics and automation
material	• high-grade, specially formulated polyamide 12
characteristics	• excellent resistance to ultra violet rays and atmospheric corrosion • excellent flexibility • good mechanical strength at low temperatures and dry conditions • self-extinguishing • NMPT-C
temperature range	-50°C ... +95°C continuous, +150°C short-term
compatible with	T/PMAFIX, T/PMAFIX Pro, T/PMA Smart Line, PMAGRIP
colour	black, grey



order no.		conduit size		rec. fitting thread						weight	packing unit	
black	grey	NW	metr.	metric	PG	d1	d2	stat. R.	dyn. R.	kg/100 m	PU/m	
	T/PIST-07B	T/PIST-07S	07	10	M12x1.5	07	6.2	10.0	15	40	2.2	50
➤	T/PIST-10B	T/PIST-10S	10	12	M12x1.5	09	9.6	13.0	20	50	2.8	50
➤	T/PIST-12B	T/PIST-12S	12	16	M16x1.5	11	11.9	15.8	25	65	3.8	50
➤	T/PIST-17B	T/PIST-17S	17	20	M20x1.5	16	16.4	21.1	30	65	5.7	50
➤	T/PIST-23B	T/PIST-23S	23	25	M25x1.5	21	22.6	28.4	35	90	9.9	50
➤	T/PIST-29B	T/PIST-29S	29	32	M32x1.5	29	29.0	34.3	45	110	13.3	50
➤	T/PIST-36B	T/PIST-36S	36	40	M40x1.5	36	36.5	42.5	60	165	16.0	30
➤	T/PIST-48B	T/PIST-48S	48	50	M50x1.5	48	47.5	54.5	70	180	22.8	30
➤	T/PISG-17B	T/PISG-17S	17	20	M20x1.5	16	15.2	21.1	30	80	6.3	50
➤	T/PISG-23B	T/PISG-23S	23	25	M25x1.5	21	21.7	28.4	40	100	9.9	50
➤	T/PISG-29B	T/PISG-29S	29	32	M32x1.5	29	27.9	34.7	50	120	13.3	50
➤	T/PISG-36B	T/PISG-36S	36	40	M40x1.5	36	35.8	42.3	60	180	16.0	30
➤	T/PISG-48B	T/PISG-48S	48	50	M50x1.5	48	46.7	54.2	70	200	22.8	30
➤	T/PIHG-56B	T/PIHG-56S	56	68	-	-	56.3	67.2	110	270	33.0	30
➤	T/PIHG-70B	T/PIHG-70S	70	80	-	-	67.2	79.6	150	350	46.0	30
➤	T/PIHG-95B	T/PIHG-95S	95	106	-	-	91.3	106.0	170	450	68.0	30
➤	T/PIHG-125B	T/PIHG-125S	125	146	-	-	126.5	146.5	350	480	93.0	20



Dimensions



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

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

Code reference

PIS	=	type med.-duty
PIH	=	type heavy-duty
T	=	fine profile
G	=	coarse profile
10	=	nominal width
B	=	colour-black
S	=	colour-grey

PIS - T - 10 - B

PIS/PIH-Index

Property	Range (min. to max.)
ductility	High (near max.)
fatigue / reversed bending	Low (near min.)
pressure resistance	Medium
cold temperature performance	High (near max.)
weather resistance	High (near max.)

Conduit very flexible medium and heavy-duty

Transtech Solutions
Unit F11 Roete 24, 50 Herman Street
Meadowdale, Germiston
Tel: 011 974 9679
Fax: 011 974 9653



PMAFLEX **PIS/PIH** 

properties	unit	value	test method according to
Mechanical properties			
Impact strength	(+23 °C) (-45 °C) (-15 °C) (+23 °C)	J class 2 (> 1 J) class 3 (> 2 J) class 4 (> 6 J)	PMA DO 9.21-4330 IEC EN 61386 IEC EN 61386 IEC EN 61386
Compression strength	N N	> 175 (50 x 50 mm) > 350 (100 x 100 mm) class 2	PMA DO 9.21-4320 PMA DO 9.21-4320 IEC EN 61386
Reversed bending stresses	(-45 °C)	cycles > 4'000'000 cycles > 10'000'000 cycles > 5'000	PMA DO 9.21-4420 PMA DO 9.21-4220 IEC EN 61386-23
Pull-out resistance conduit/PMAFIX: Connector type IP68 type IP66	N N	> 300 > 230 class 1	PMA DO 9.21-4610 PMA DO 9.21-4610 IEC EN 61386
Testing at 23°C, 50% r.h., conduit nominal width 17, unless otherwise stated			
Thermal properties			
Continuous application temperature	°C	-50 ... +95	PMA DO 9.21-4510
Upper application temperature	°C	+110 20'000 h	PMA DO 9.21-4360
Short-term	°C	+150 168 h	PMA DO 9.21-4360
Application temperature range	°C	-45 ... +105	IEC EN 61386
Application temperature range	°C	-18 ... +90	UL1696/CSA 22.2 Nr. 227.3
Temperature change characteristics:		Kat. A	PMA DO 9.21-4370
Cold-warm shock test		excellent	
Fire safety characteristics			
Free from halogens		yes	DIN 53474
Fire performance		non flame-propagating	IEC EN 61386
Glowing wire flammability index	°C	850	EN 60695-2-10
Oxygen index	%	> 28	EN ISO 4589-1
Fire protection category		Cat. II	BS 6853 / TCA
Fire protection grades		S4 / SR2 / ST2	DIN 5510
Fire performance		V0	UL 94
Fire performance		compliant	UL 224
Fire propagation		compliant compliant	ASTM E 162
Smoke density			ASTM E 662
Thermal load	MJ/kg	20.2	ASTM E 1354-02a
Flame Spread		I = 4	GOST 12.1.044-89
Fire performance		BKZ 5.2	VKF

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PMAFLEX **PIS/PIH** 

properties	unit	value	test method according to
Weathering resistance			
Weathering (UV/humidity) for black colour		excellent	
Chemical properties			
Environmental properties			
RoHS and REACH compliant		yes	EU Directive 2002/95/EC
Application approvals			
Underwriters Laboratories	RU recognised comp. / UL 1696		certification authority
Content of delivery			
Conduit			

In addition to the national and international standards which consider mainly material properties and general product performance, PMA applies its own internally developed standards when assessing the system suitability of cable protection products. The PMA standards are based on 30 years experience and allow a better assessment of whether a product is practically appropriate for a specific application.

The specifications and instructions for our customers in this document reflect the product engineering level at the time of manufacturing. Please consider the valid data sheet release at a time. For questions please contact the PMA customer service, ABB Switzerland Ltd, PMA Cable Protection accepts no liability for damages resulting from unprofessional installation or application or misuse for a purpose. This disclaimer also includes damages to third parties. It is the customer's responsibility to check the delivered products and immediately notify ABB Switzerland Ltd, PMA Cable Protection of detected faults. It is also the customer's responsibility to test the delivered product on its applicability for the intended purpose. ABB Switzerland Ltd, PMA Cable Protection will accept no liability or responsibility for their products if a product or a PMA system is combined or used together with third-party products, i.e. products from other companies than ABB Switzerland Ltd, PMA Cable Protection. Jurisdiction in all legal disputes concerning product liability have the courts of the canton of Zurich/Switzerland. Swiss law applies.