TECHNICAL DATA SHEET

PMA Automation - BTK - Ball joint sleeve



Applications:
- Ball joint sleeve allows fixation and mechanical guidance of PMA conduits
- Used in combination with BSH tube clamps
- Suited for robotics dress pack installations

Features & Benefits:
- Ball joint used in combination with BSH allows tilting of up to +/- 10° and 360° of axial rotation, increases degree of freedom for cable packs
- Trumpet-shaped openings restricts conduit bending radius, increasing product lifetime
- Combination with strain relief insert (BTR) allows to block axial conduit movement/sliding
- Easy to install and exchange

Materials:
- High-grade, specially formulated polyamide 6 (BTK & BTR)

Compatible with:
- PMA Automation BSH Tube clamp
- PMAFLEX Pro Conduits
- PMAFLEX Multilayer Conduits
- PMAFLEX Conduits

Weathering resistance:
- Very good UV resistance and weathering characteristics

Colour:
- Black

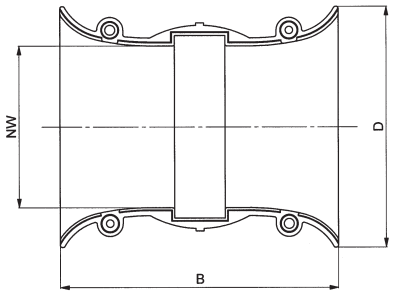
Chemical properties:
- Please refer to www.pma.ch (Technical Information / Chemical Resistance)

Environmental properties:
- Free from halogens and cadmium
- RoHS and REACH compliant

Product selection:

Part no.		Conduit size	Dimensions in mm (nom.)		Fits to	Weight	Packing unit
glide	strain relief	NW	B	D		kg/100 pcs	pcs/PU
BTK-R36	BTK-R36 + BTR-R36GT	36	104.0	66.0	BSH-R48	6.3	1
BTK-R48	BTK-R48 + BTR-R48GT	48	110.0	79.5	BSH-R56	8.2	1
-	BTK-R70 + BTR-R70G + BGN-R56G/70G	56	138.5	121.0	BSH-R70	25.5	1
BTK-R70	BTK-R70 + BTR-R70G	70	138.5	121.0	BSH-R70	22.1	1

Our customer service dept. or local distribution partner will be pleased to help you concerning product availability and lead time

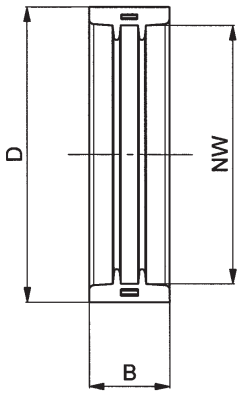


BTR, strain relief insert

Product selection:

Part no.	Conduit size	Dimensions in mm (nom.)		Fits to	Weight	Packing unit
glide	NW	B	D		kg/100 pcs	pcs/PU
BTR-R36GT	36	27.5	49.5	BTK-R36	1.4	1
BTR-R48GT	48	31.5	61.5	BTK-R48	2.1	1
BTR-R70G	70	24.5	91.0	BTK-R70	4.2	1

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Mechanical Properties:	Value:	Test parameters:	Test method:
Tensile modulus	1‘200 ... 3‘700 N/mm²		ISO 527
Tensile strength	45 ... 65 N/mm²		ISO 527
Notched bar impact test	4 ... 20 kJ/m²		ISO 180/1C

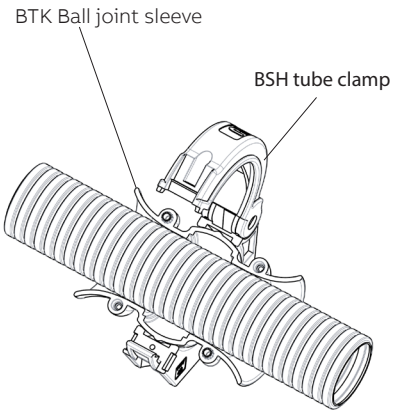
Thermal properties:	Value:	Test parameters:	Test method:
Continuous application temperature	–50 ... +105°C		PMA DO 9.21-4510
Upper application temperature	+120°C	(20'000 h)	PMA DO 9.21-4360
Short-term	+160°C	(168 h)	PMA DO 9.21-4361

Content of delivery:

- BTK: 2 halfshells + 4 screws
- BTR: 2 halfshells

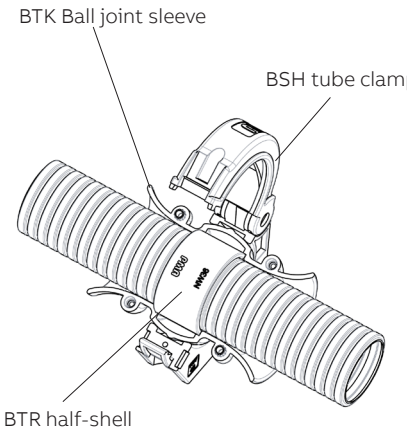
Examples for combination possibilities

Sliding functionality



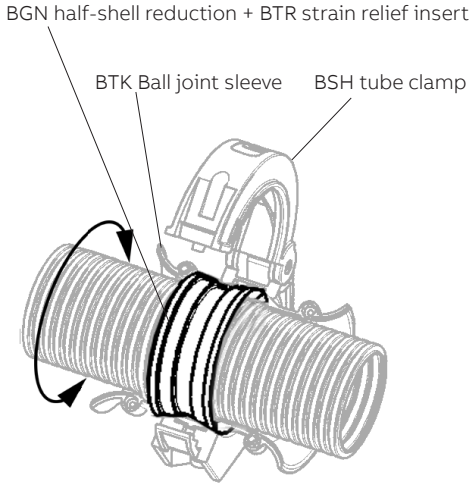
PMA conduit can axially slide and rotate

Strain relief functionality



PMA conduit is axially fixed (no sliding) and can rotate

Strain relief functionality + size reduction



PMA conduit is axially fixed (no sliding) and can rotate

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