

PMA Robotic Equipment

The PMA Robotic Equipment has been designed to protect cables and leads in extreme automation and robotic installations. All components help to reduce damage and outwear of the stear and lead elements and can therefore significantly increase the life cycle of the installation. The movements of the installation will not be limited.

Different conduit types for different applicational demands, supports and a range of accessories can avoid torsion forces on the conduits if correctly applied and stresses on the complete cable package can be reduced.

The PMA Robotic Equipment series allow an optimum installation along moving elements as well as a quick and easy installation.

If PMA products are used in conjunction with non PMA products, all product liability claims will be rejected.

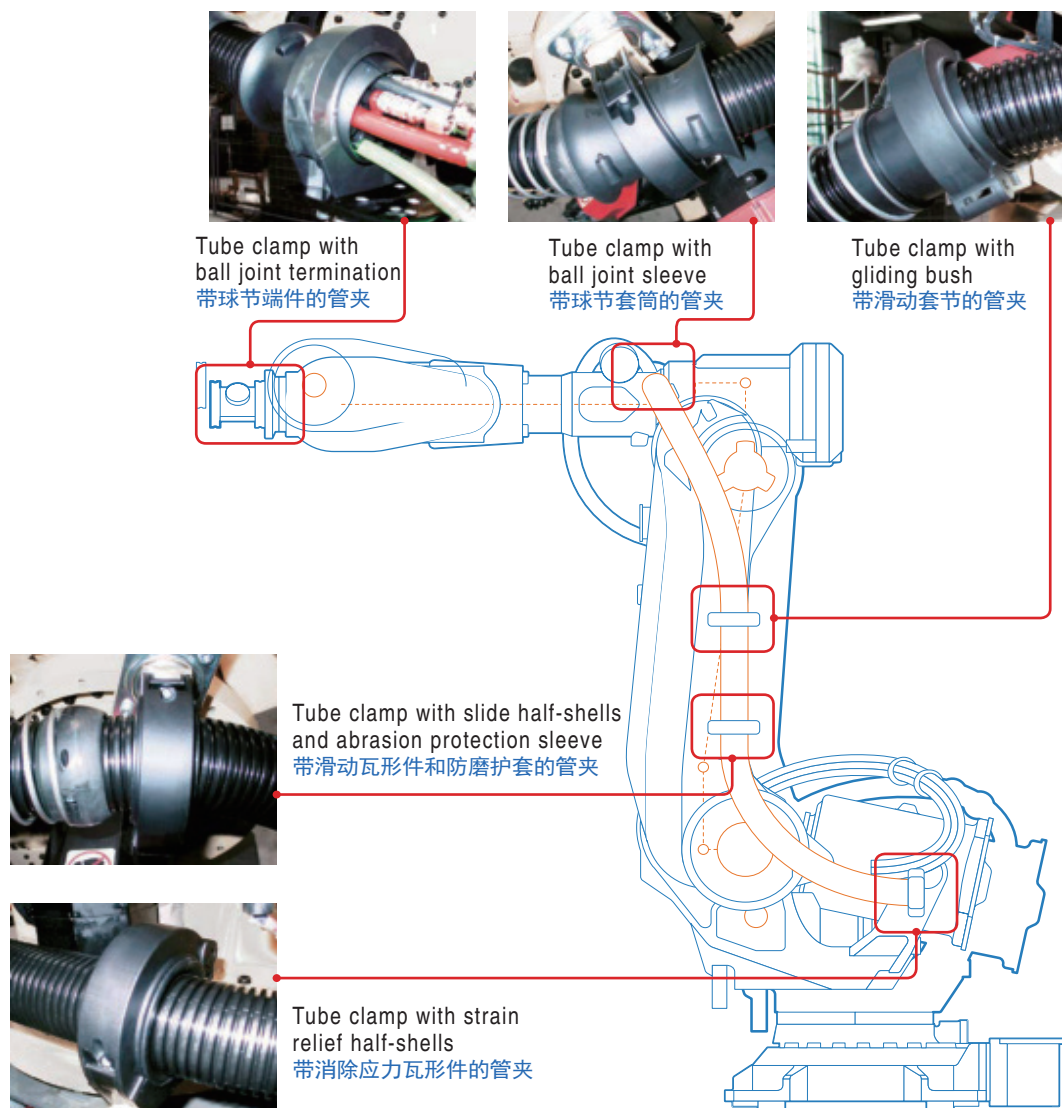
PMA机器人系列软管和配件

PMA机器人系列软管和配件专为保护电缆和导线在极端自动化和机器人安装而设计。所有组件有助于减少损坏和老化且能引导单元并显著提升生命周期。安装的运动部分将不会被限制。

不同种类的软管可应用于不同的需求，如正确安装系列附件可避免作用在软管上的旋转扭力，同时也可减少电缆系统上的压力。

PMA机器人系列软管和配件可使移动单元的安装最佳化，同时使安装过程更快更简单。

所有与非PMA产品联合使用而产生的不良后果责任由用户自负。



ESD *very flexible, light / medium-duty* 非常柔软, 薄 / 中壁

For dynamic applications in robotics and automation where electrostatic charge and uncontrolled discharge need to be avoided.
在机器人和自动化领域动态安装中需要防静电要求的场合。



- High-grade, specially formulated polyamide 12
高级, 特殊配方聚酰胺12制成
- Prevents electrostatic charging
防静电产生
- For indoor and outdoor use
用于室内和室外使用
- High dynamic load resistance
高动态负载阻抗
- Very good cold temperature performance
非常好的低温性能
- Very good chemical properties
非常好的耐化学性能
- Excellent UV resistance and weathering characteristics
优异的抗紫外线和耐候性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Temperature range: -40°C to +90°C; short-term: +150°C
温度范围: -40°C 至 +90°C; 短期温度: +150°C

#	Order No. black 订货号 黑色	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)	MOQ 最小起订量	
	stat.** 静态 (mm)					dyn.** 动态 (mm)	黑色B (m)			
	ESDT-07B	T	07	6.70	10.0	15	40	50	1300	
	ESDT-10B	T	10	9.70	12.8	20	50	50	2000	
	ESDT-12B	T	12	12.0	15.6	25	65	50	-	
	ESDT-17B	T	17	16.6	21.1	35	85	50	-	
	ESDT-23B	T	23	23.0	28.4	40	110	50	-	
	ESDT-29B	T	29	28.7	34.5	50	135	50	-	
	ESDT-36B	T	36	36.8	42.4	60	170	30	-	
	ESDT-48B	T	48	48.0	54.5	75	220	30	-	
	ESDG-56B	G	56	55.8	67.5	110	270	30	630	
	ESDG-70B	G	70	67.4	79.6	130	320	10	-	
	ESDG-75B	G	75	76.0	89.0	155	350	30	810	
	ESDG-95B	G	95	91.5	107.0	170	430	10	320	

Profiles-fine (T); Profiles-coarse (G) 细波纹 (T); 粗波纹 (G)
The above data is given based on "Technical Data Sheet" DB-Nr.11500-11 / 11501-02 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.11500-11 / 11501-02。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

ESD - Index	
min.	max.
ductility	柔软性
fatigue reversed bending	抗弯性
compression resistance	抗压性
low temperature performance	抗冻性
weathering resistance	耐候性

LPR *Highly flexible, medium-duty* 极柔软, 中壁

For dynamically moving conduit systems in robotics and automation industry. Long service life in dynamic applications
适用于机器人及自动化领域动态软管系统。使用寿命较长, 即使在动态应用条件下。



- Specially modified polyamide 12
特殊改良聚酰胺12制成
- Excellent reversed bending performance
极好的交变弯曲性能
- High tear propagation resistance
高抗撕裂性
- High resistance to torsion and elongation
高抗扭转性能及抗拉强度
- Improved chafing resistance
经改良, 具有抗磨损性
- Long service life
使用寿命长
- Very good UV resistance and weathering characteristics
非常好的抗紫外线和耐候性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Temperature range: -40°C to +90°C; short-term: +150°C
温度范围: -40°C 至 +90°C; 短期温度: +150°C

#	Order No. blue 订货号 蓝色	Order No. black 订货号 黑色	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)	MOQ 最小起订量	
	stat.** 静态 (mm)	dyn.** 动态 (mm)					蓝色XB (m)	黑色B (m)			
	LPRG-23XB	-	G	23	21.7	28.4	45	110	50	1200	-
	LPRG-29XB	-	G	29	27.4	34.5	55	135	50	1200	-
	LPRT-36XB	#LPRT-36B	T	36	36.4	42.4	60	170	30	900	900
	LPRG-48XB	#LPRG-48B	G	48	46.9	54.5	85	220	30	-	900
	LPRG-56XB	-	G	56	56.5	67.5	110	270	30	900	-
	LPRG-70XB	#LPRG-70B	G	70	67.5	79.6	130	320	30	-	900
	LPRG-95XB	-	G	95	92.3	107.0	170	430	30	600	-

Profiles-fine (T); Profiles-coarse (G) 细波纹 (T); 粗波纹 (G)
The above data is given based on "Technical Data Sheet" DB-Nr.11716-05 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.11716-05。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

LPR - Index	
min.	max.
ductility	柔软性
fatigue reversed bending	抗弯性
compression resistance	抗压性
low temperature performance	抗冻性
weathering resistance	耐候性

PIS/PIH *highly flexible, heavy-duty* 极柔软, 厚壁

For dynamic applications in robotics and automation. 在机器人和自动化方面的动态应用。


- High-grade, specially formulated polyamide 12
高级, 特殊改良聚酰胺12制成
- Excellent mechanical characteristics, also under extreme climatic conditions (low temperature and low humidity)
优异的机械特性, 并适用于在极端气候条件下应用 (低温和低湿度)
- Self-extinguishing
自熄灭性好
- Free from halogens and cadmium
不含卤素和镉
- Excellent flexibility
优异的柔软性
- RoHS and REACH compliant
RoHS和REACH合规性
- UL1696 (UL File E80294)
UL 1696 (UL 文件 E80294)
- Good mechanical strength at low temperatures and dry conditions
在低温、干燥的环境下, 有很好的抗冲击强度
- Excellent UV resistance and weathering characteristics, particularly in black
优异的抗紫外线和耐候性能, 尤其是黑色软管
- Temperature range: -50°C to +95°C; short-term to +150°C
在温度范围: -50°C 至 +95°C; 短期温度: +150°C

Order No. 订货号	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)
					stat.** 静态 (mm)	dyn.** 动态 (mm)	
PIST-07 *	T	07	6.70	10.0	15	40	50
PIST-10 *	T	10	9.70	12.8	20	50	50
PIST-12 *	T	12	12.0	15.6	25	65	50
PIST-17 *	T	17	16.7	21.1	30	85	50
PIST-23 *	T	23	23.2	28.4	40	110	50
PIST-29 *	T	29	28.9	34.5	50	135	50
PIST-36 *	T	36	36.8	42.4	60	170	30
PIST-48 *	T	48	48.0	54.5	75	220	30
PISG-17 *	G	17	15.8	21.1	35	85	50
PISG-23 *	G	23	22.0	28.4	45	110	50
PISG-29 *	G	29	27.8	34.5	55	135	50
PISG-36 *	G	36	36.2	42.4	65	170	30
PISG-48 *	G	48	47.1	54.5	85	220	30
PIHG-56 *	G	56	57.0	67.5	110	270	30
PIHG-70 *	G	70	68.0	79.6	130	320	30
PIHG-95 *	G	95	92.5	107.0	170	430	30
PIHG-125*	G	125	126.9	146.0	230	580	20

* = Replace with "B" to order black or "S" to order grey "B" 订黑色或 "S" 订灰色

Profiles-fine (T); Profiles-coarse (G) 细波纹 (T); 粗波纹 (G)

The above data is given based on "Technical Data Sheet" DB-Nr.11000-16 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.11000-16。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

PIS/PIH - Index

min.	max.
ductility	柔软性
fatigue reversed bending	抗弯性
compression resistance	抗压性
low temperature performance	抗冻性
weathering resistance	耐候性

POS *highly flexible, medium-duty* 极柔软，中壁

In automation as well as in machine building and industrial installations, especially where continuous movements occur.
 在自动化以及机械制造和工业设施的应用，特别是在需要连续运动的环境下的应用。



- Specially modified polypropylene
特殊改良聚丙烯制成
- Excellent reversed bending performance and flexibility
优异的反变弯曲性能和柔软性能
- Very good insulating characteristics
非常好的绝缘特性
- Good impact resistance
高抗冲击强度
- Free from halogens and cadmium
不含卤素和镉
- Good resistance against strong acids
耐强酸性
- Temperature range: -25°C to +95°C; short-term to +130°C
温度范围: -25°C 至 +95°C; 短期温度 +130°C

Order No. black 订货号 黑色	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)	MOQ 最小起订量 黑色B (m)
					stat.** 静态 (mm)	dyn.*** 动态 (mm)		
POST-10B	T	10	9.60	13.0	20	50	50	-
POST-12B	T	12	11.9	15.8	30	70	50	-
POST-17B	T	17	16.2	21.2	35	75	50	-
POST-23B	T	23	22.6	28.5	40	100	50	-
POST-29B	T	29	29.0	34.5	50	120	50	-
POST-36B	T	36	36.5	42.5	60	180	30	-
POST-48B	T	48	47.5	54.5	70	195	30	-
# POSG-29B	G	29	27.6	34.5	50	120	50	1200
# POSG-36B	G	36	36.0	42.5	60	180	30	1080
# POSG-48B	G	48	47.0	54.5	70	195	30	960
POSG-70B	G	70	67.2	79.6	150	350	30	-
# POSG-95B	G	95	91.3	106.0	170	450	30	300

Profiles-fine (T) ; Profiles-coarse (G) 细波纹 (T) ; 粗波纹 (G)

标记为 # 的产品有最小起订量 (MOQ)

The above data is given based on "Technical Data Sheet" DB-Nr.11040-09 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.11040-09。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

POS - Index

min.	max.
ductility 柔软性	
fatigue reversed bending 抗弯性	
compression resistance 抗压性	
low temperature performance 抗冻性	
weathering resistance 耐候性	

PUE *highly flexible, soft-grade* 极柔软, 管壁柔软型

For dynamically moving conduit systems in robotics and automation industry. 适用于机器人及自动化领域动态软管系统。



Order No. 订货号	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)
					stat.** 静态 (mm)	dyn.** 动态 (mm)	
PUET-23B	T	23	23.1	28.4	40	75	50
PUET-29B	T	29	29.0	34.5	45	90	30
PUET-36B	T	36	36.8	42.4	55	110	30
PUET-48B	T	48	48.4	54.5	70	140	21
PUEG-56B	G	56	57.2	67.5	90	170	30
PUEG-70B	G	70	68.4	79.6	105	200	30

- High-grade, specially formulated polyurethane 高级, 特殊改良聚氨酯制成
- High resistance to continuous bending 优异的交变弯曲性能
- High abrasion resistance 高耐磨性能
- High resistance to torsion 高抗扭转性能
- Suitable for very tight bending-radii 能适合更小的弯曲半径
- Long service life 使用寿命长
- Free from halogens and cadmium 不含卤素和镉
- RoHS and REACH compliant RoHS和REACH合规性
- Very good UV resistance and weathering characteristics 非常好的抗紫外线和耐候性能
- Temperature range: -60°C to +50°C, continuous 温度范围: -60°C 至 +50°C, 持续

Profiles-fine (T); Profiles-coarse (G) 细波纹 (T); 粗波纹 (G)

The above data is given based on "Technical Data Sheet" DB-Nr.11701-14 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.11701-14。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

PUE - Index

min.	max.
ductility	柔软性
fatigue reversed bending	抗弯性
compression resistance	抗压性
low temperature performance	抗冻性
weathering resistance	耐候性

PUEH *highly flexible, heavy-duty* 极柔软, 厚壁

For dynamic applications in robotics and automation. 在机器人和自动化方面的动态应用。



Order No. 订货号	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)
					stat.** 静态 (mm)	dyn.** 动态 (mm)	
PUEHG-70B	G	70	67.5	80.2	100	220	30

Profiles-fine (T); Profiles-coarse (G) 细波纹 (T); 粗波纹 (G)

The above data is given based on "Technical Data Sheet" DB-Nr.11702-02 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.11702-02。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- High-grade, specially formulated polyurethane 高级, 特殊改良聚氨酯制成
- Highest flexibility 极高柔软性能
- Excellent resistance to abrasion 优异的抗磨损性能
- Increased resistance to elongation 增强耐拉伸率
- Free from halogens and cadmium 不含卤素和镉
- Temperature range: -60°C to +50°C 温度范围: -60°C 至 +50°C
- Chemical resistance: to fuels, mineral oils and fats etc. 耐化学性: 防燃油, 矿物油, 脂肪等

PUEH - Index

min.	max.
ductility	柔软性
fatigue reversed bending	抗弯性
compression resistance	抗压性
low temperature performance	抗冻性
weathering resistance	耐候性

XR90 *very flexible, medium-duty* 非常柔软, 中壁

For dynamically moving conduit systems in robotics and automation industry. 适用于机器人及自动化领域动态软管系统。



- Outer, intermediate and inner layer made from high-grade, specially formulated polyamide 12
外层, 中间夹层和内层: 高级特别配方聚酰胺12
- Outer layer: black; intermediate layer: yellow; inner layer: red
外层: 黑色; 中间夹层: 黄色; 内层: 红色
- With wear indication function
带有磨损指示器功能
- High resistance to continuous bending
优异的交变弯曲性能
- No abrupt conduit failure due to high tear propagation resistance
由于抗撕裂的扩展, 软管不会突然发生断裂
- High abrasion resistance
高耐磨性能
- High resistance to torsion and elongation
高抗扭转和延伸性能
- Suitable for applications with a pullback system
适用于带回拉系统的应用
- Long service life
使用寿命长
- Free from halogen and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Very good UV resistance and weathering characteristics
非常好的抗紫外线和耐候性能
- Temperature range: -40°C to +95°C; short-term: +150°C
温度范围: -40°C 至 +95°C; 短期温度 +150°C

Order No. black / red 订货号 黑色 / 红色	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)	MOQ 最小起订量 (m)
					stat.** 静态 (mm)	dyn.** 动态 (mm)		
# XR90T-17BR	T	17	16.2	21.1	30	85	50	1400
XR90T-23BR	T	23	22.7	28.4	40	110	50	-
XR90T-29BR	T	29	28.6	34.5	50	135	50	-
XR90G-17BR	G	17	15.4	21.1	35	85	50	-
XR90G-23BR	G	23	21.4	28.4	45	110	50	-
XR90G-29BR	G	29	27.2	34.5	55	135	50	-
XR90G-36BR	G	36	35.9	42.4	65	170	30	-
XR90G-48BR	G	48	47.0	54.5	85	220	30	-
XR90G-56BR	G	56	56.7	67.5	110	270	30	-
XR90G-70BR	G	70	67.8	79.6	130	320	30	-

Profiles-fine (T); Profiles-coarse (G) / 细波纹 (T); 粗波纹 (G)

标记为 # 的产品有最小起订量 (MOQ)

The above data is given based on "Technical Data Sheet" DB-Nr.16080-07 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

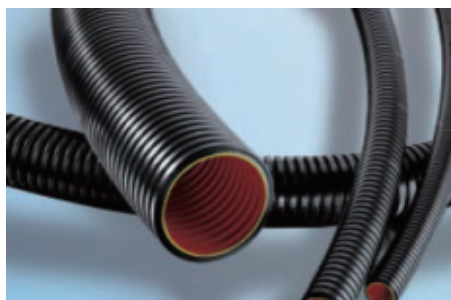
以上数据来源于PMA工厂“技术数据表”DB-Nr.16080-07。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

XR90-Index

min.	max.
ductility	柔软性
fatigue reversed bending	抗弯性
compression resistance	抗压性
low temperature performance	抗冻性
weathering resistance	耐候性

XR90H *highly flexible, medium-duty* 极柔软, 中壁

Multilayer conduit for the robotic and automation industry. 多层软管适用于机器人和自动化领域。



- Outer, intermediate and inner layer made from high-grade, specially formulated polyamide 12
外层, 中间夹层和内层: 高级特别配方聚酰胺12
- Outer layer: black; intermediate layer: yellow; inner layer: red
外层: 黑色; 中间夹层: 黄色; 内层: 红色
- With wear indication function
带有磨损指示器功能
- High resistance to continuous bending
优异的交变弯曲性能
- No abrupt conduit failure due to high tear propagation resistance
由于抗撕裂的扩展, 软管不会突然发生断裂
- Improved chafing resistance
经改良, 具有抗磨损性
- Highly flexible, small bending radii possible
极柔软, 较小的弯曲半径
- High resistance to torsion
高抗扭转性能
- Long service life
使用寿命长
- Free from halogen and cadmium
不含卤素和镉
- Temperature range: -40°C to +95°C; short-term to +150°C
温度范围: -40°C 至 +95°C; 短期温度 +150°C

Order No. black / red 订货号 黑色 / 红色	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)	MOQ 最小起订量 (m)
					stat.** 静态 (mm)	dyn.** 动态 (mm)		
# XR90H-70BR	H	70	67.5	82.5	150	300	30	540

Larger outer diameter - not suitable for current NW70 accessories
较大外径 - 不适用于现有的NW70配件

标记为 # 的产品有最小起订量 (MOQ)

The above data is given based on "Technical Data Sheet" DB-Nr.16081-00 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.16081-00。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

XR90H-Index

min.	max.
ductility	柔软性
fatigue reversed bending	抗弯性
compression resistance	抗压性
low temperature performance	抗冻性
weathering resistance	耐候性

XTPC *highly flexible, medium-duty* 极柔软, 中壁

For dynamic conduit systems in robotics and automation industry. 适用于机器人和自动化行业的动态系统。



Order No. black/blue 订货号 黑色/蓝色	Profile 波纹	Conduit size 软管规格 NW 标称内径	Inside diameter 内径 (mm)	Outside diameter 外径 (mm)	Radius 最小弯曲半径		PU meter 包装单位 (m)
					stat.** 静态 (mm)	dyn.** 动态 (mm)	
XTPCG-17BB.50	G	17	15.2	21.1	30	75	50
XTPCG-23BB.50	G	23	21.2	28.4	40	100	50
XTPCG-29BB.50	G	29	26.8	34.5	50	120	50
XTPCG-36BB.30	G	36	35.5	42.4	60	150	30
XTPCG-48BB.30	G	48	46.5	54.5	80	190	30
XTPCG-56BB.30	G	56	56.2	67.5	105	235	30
XTPCG-70BB.30	G	70	67.3	79.6	120	280	30

- Outer, intermediate and inner layer made from high-grade, specially modified thermoplastic copolyester elastomer
外层、中间夹层和内层：高级特别配方热塑性共聚酯弹性体
- Outer layer: black; intermediate layer: yellow; inner layer: blue
外层：黑色；中间夹层：黄色；内层：蓝色
- With wear indication function
带有磨损指示器功能
- High resistance to continuous bending
优异的交变弯曲性能
- No abrupt conduit failure due to high tear propagation resistance
由于抗撕裂的扩展，软管不会突然发生断裂
- Very high abrasion resistance
非常高的耐磨性能
- High resistance to torsion
高抗扭转性能
- Suitable for tight bending-radii
适用于较小的弯曲半径
- Long service life
使用寿命长
- Good UV resistance and weathering characteristics
良好的抗紫外线和耐候性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Temperature range: -40°C to +105°C; short-term: +150°C
温度范围：-40°C 至 +105°C；短期温度：+150°C

Profiles - fine (T) ; Profiles - coarse (G) 细波纹 (T) ; 粗波纹 (G)

The above data is given based on "Technical Data Sheet" DB-Nr.16180 -01 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.16180-01。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

标记为 # 的产品有最小起订量 (MOQ)

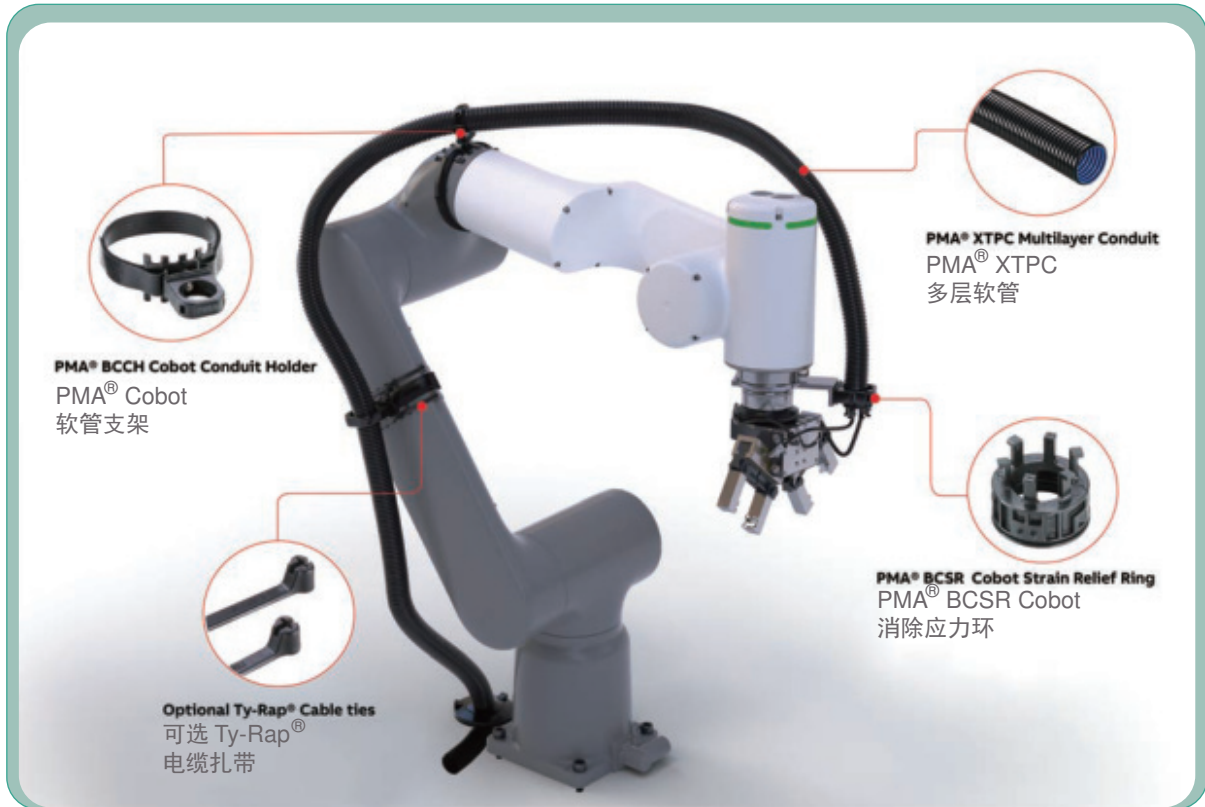
XTPC-Index

min.	max.
ductility 柔软性	
fatigue reversed bending 抗弯性	
compression resistance 抗压性	
low temperature performance 抗冻性	
weathering resistance 耐候性	

Compatibility with most widely used collaborative robot 兼容最广泛使用的协作机器人

PMA Cobot Kit

PMA Cobot 配套元件

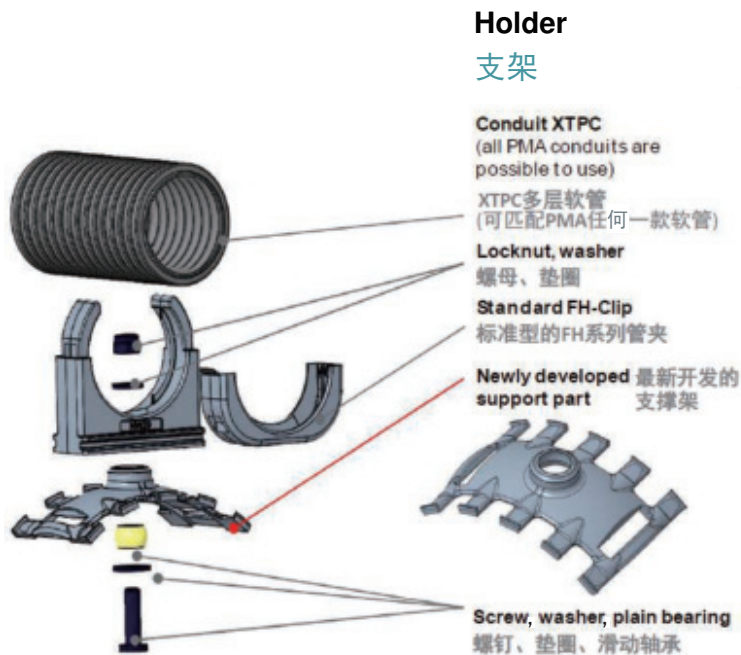


The PMA® cable protection solution for Cobots is designed to safely work directly and continuously alongside humans and to be very easy to install and use.

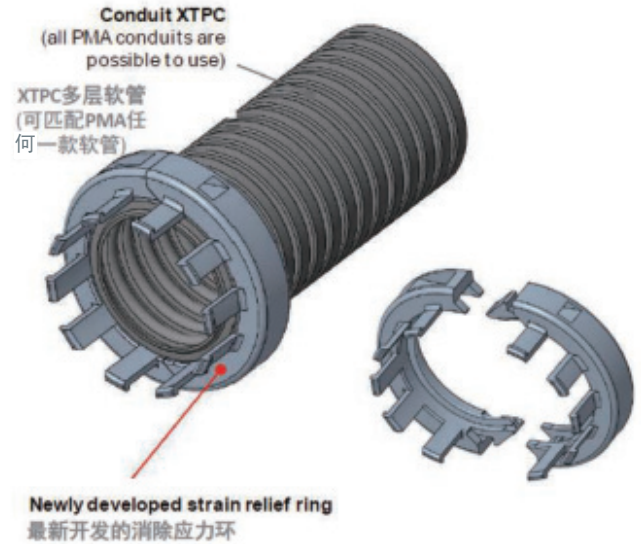
用于协作机器人的PMA® 电缆保护解决方案旨在安全地直接与人类一起持续工作，并且非常易于安装和使用。



Holder and strain relief 支架与消除应力



Strain Relief 消除应力



Features and benefits 特点和好处

Value proposition & USP 价值定位 & 卖点

- Easy Installation & flexible positioning with Velcrostraps and/or TyRap cable ties
采用Velcro尼龙搭扣或TyRap电缆扎带，既易于安装又可灵活定位
- “One-size-fits-all design”: Holder fits Cobot arms of many established brands (UR, Fanuc, ABB, etc.)
采用“一体通用型设计”，确保与知名品牌Cobot的型号兼容（UR、Fanuc、ABB等）
- 3 sizes available (NW17, 23, 29)
3款尺寸可选（NW17、23、29）
- Holder design allows 360° rotation & 10° tilt of BFH
支架采用高度灵活性的设计，其允许BFH管夹360°旋转以及高达10°倾斜角度
- Simple & fast installation (no tools needed)
安装简单快速（无需工具）
- Competitive price
价格具有竞争力



KIT - CCH - Cobot Cable Protection Kit

KIT - CCH - Cobot 电缆保护套件

PMA Cobot Kit

PMA Cobot 配套元件



The PMA Cobot Cable Protection Kit offers an easy-to-use dress pack solution for collaborative robots, allowing to fasten, route and protect cables & tubes.

PMA Cobot 电缆保护套件为协作机器人提供了一个简单易用的线缆包解决方案，可固定、布线和保护电缆和导管。

Product selection: 产品选型:						
Part no. 订货号 黑色	Conduit size 软管规格	Conduit part no. 软管订货号	Cobot conduit holder part no. Cobot 软管支架 订货号	Cobot strain relief ring part no. Cobot 消除应力环 订货号	Cobot strain relief ring holder part no. Cobot 消除应力环 支架订货号	Packing unit 包装单位
black	NW 标称内径	XTPC	BCCH	BCSR	BFH-0	pcs / PU
KIT-CCH-17	17	XTPCG-17BB.3	BCCH-17	BCSR-17	BFH-23-0	1
KIT-CCH-23	23	XTPCG-23BB.3	BCCH-23	BCSR-23	BFH-29-0	1
KIT-CCH-29	29	XTPCG-29BB.3	BCCH-29	BCSR-29	BFH-36-0	1

The above data is given based on "Technical Data Sheet" DB-Nr.40519-01 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40519-01。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

Content of delivery:

包含配件:

- 2x BCCH - Cobot Conduit Holder 2 x BCCH - Cobot 软管支架
- 1x BCSR - Cobot Strain Relief Ring 1 x BCSR - Cobot 消除应力环
- 1x BFH-0 system support 1 x BFH-0 固定卡子
- 1x 3m XTPC multilayer conduit 1 x 3m XTPC 多层软管

BCCH Cobot conduit holder Cobot软管支架

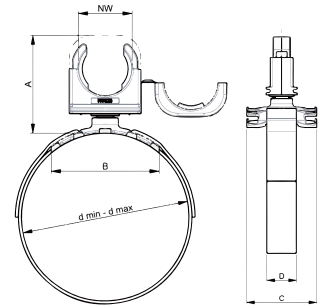
In automation applications for fixing PMA conduits along a variety of cylindrical & elliptical shaped collaborative robot (Cobot) arms.
在自动化应用中，可沿着各种圆柱形和椭圆形协同机器人 (Cobot) 手臂固定PMA软管。



Order No. black 订货号 黑色	Conduit size 软管规格 NW 标称内径 (mm)	Dimensions 尺寸						Packing unit 包装量 (pcs/PU)
		d min. (mm)	d max. (mm)	A (mm)	B (mm)	C (mm)	D (mm)	
BCCH-17	17	56.0	370.0	44.5	57.9	45.0	19.0	1
BCCH-23	23	56.0	370.0	52.5	57.9	45.0	19.0	1
BCCH-29	29	56.0	370.0	58.5	57.9	45.0	19.0	1

The above data is given based on "Technical Data Sheet" DB-Nr.40517-00 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40517-00。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- High-grade, specially formulated polyamide 6
高级，特殊配方聚酰胺6制成
- Flexible design of swivel base ensures compatibility with Cobot models of most widely used brands (e.g., ABB™, UR™, Omron™, etc.)
旋转底座的灵活设计确保与知名品牌Cobot的型号兼容（如ABB™, UR™, Omron™, 等）
- Fastening along Cobot arm with Velcro® and/or cables ties
采用Velcro® 尼龙搭扣和/或扎带沿着机器人手臂固定
- 360° swiveling of BFH-0 clip gives flexibility and reduces mechanical stress induced by Cobot movements
BFH-0管夹的360°旋转底座具有高度灵活性，并降低了Cobot运动引起的机械应力
- 10° tilt angle of FH-clip in any direction
FH管夹在任意方向都可高达10°倾斜角度
- Fits G- and T conduit profile
适用软管类型—细波纹 (T) 和粗波纹 (G)
- Easy to install and to exchange
易于安装和更换
- Installation with Velcro® for cylindrical arm diameter 56mm – 120mm
采用Velcro® 尼龙搭扣安装在直径56mm – 120mm圆柱系机械臂上
- For arm diameter 120mm-370mm, the use of a Velcro® and additional cable ties (not included) is recommended
对于臂直径120mm - 370mm, 建议使用Velcro® 尼龙搭扣和额外的扎带（产品不包括扎带，需另外购买）
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Content of delivery: 1x BCCH, Cobot Conduit Holder, 1x Velcro® (500mm) for fixation
包装配件：1x BCCH 协作机器人软管支架、1x Velcro® (500mm) 尼龙搭扣



BCSR Cobot strain relief ring Cobot 消除应力环

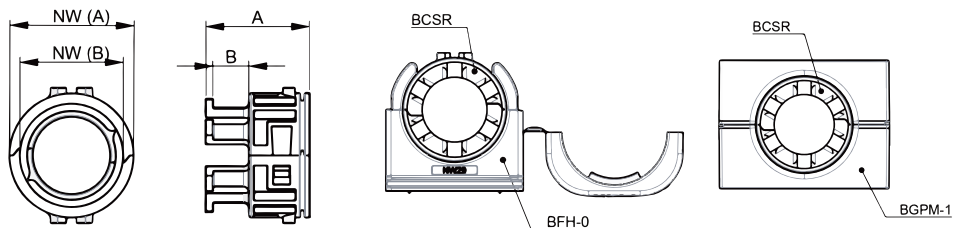
In automation applications to relief strain and to fixate individual cables/tubes to a conduit terminal.
在自动化应用中，适配于软管终端处，具有消除应力和固定单根电缆和导管的作用。



Order No. black 订货号 黑色	Conduit size 软管规格 NW (B) 标称内径 (mm)	Fits to BFH-0 BGPM-1x NW (A) 适配于BFH-0 BGPM-1x	Strain relief teeth qty 带消除应力齿轮 数量	Dimensions 尺寸		Packing unit 包装量 (pcs/PU)
				A (mm)	B (mm)	
BCSR-17	17	23	4	28.8	10.0	10
BCSR-23	23	29	6	28.8	10.0	10
BCSR-29	29	36	6	28.8	10.0	10

The above data is given based on "Technical Data Sheet" DB-Nr.40518-00 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40518-00。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- High-grade, specially formulated polyamide 6
高级，特殊配方聚酰胺6制成
- Fastening of individual cables/tubes to a conduit terminal via cable ties (not included)
通过扎带将单根电缆/导管固定到软管终端上（产品不包括扎带，需另外购买）
- To be used freely rotating around conduit axis, or in "lock" mode using a BFH-0 clip (see drawing)
可随着软管轴自由旋转，或使用BFH-0管夹在“锁定”模式下使用（参见图纸）
- Fits G- and T conduit profile
适用软管类型—细波纹 (T) 和粗波纹 (G)
- Easy to install and to exchange
易于安装和更换
- Combining the BCSR with a BFH-0, requires a BFH-0 of the next larger NW (i.e., BCSR-17 is used in combination with BFH-23-0) 若BCSR与BFH-0配套使用，即BFH-0的NW尺寸需要比BCSR的NW大一个尺码（如，BCSR-17与BFH-23-0配套使用）
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围：-50°C 至 +105°C；短期温度：+160°C
- Content of delivery: 1x BCSR, Cobot Strain Relief Ring
包装配件：1x BCSR 协作机器人消除应力环



LH tube clamp compact 紧凑式管夹

The LH tube clamp in combination with GN half shells is used for fixation of PMA conduits in automation applications.

配合GN瓦形件的LH紧凑式管夹可应用于自动化应用中对PMA软管的固定。



- High-grade, specially formulated polyamide 6
高级, 特殊配方聚酰胺6制成
- 2-piece tube clamp
2件管夹
- Specially compact construction
特别紧凑的结构
- To be used in combination with standard half-shell GN, data sheet No.40050
要使用标准的瓦形件GN组合, “技术数据表” No.40050
- Easy installation
易于安装
- Allows optimum installations in automation applications due to space saving design
允许缘于节省空间设计的自动化应用设备优化
- Extends lifecycle of the cable pack due to reduced mechanical stress (avoiding torsion)
由于减少机械应力(避免扭曲)延长管线包的生命周期
- Free from halogens and cadmium
不含卤素和镉
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围: -40°C 至 +105°C; 短期温度: +160°C
- Content of delivery:
包含配件:

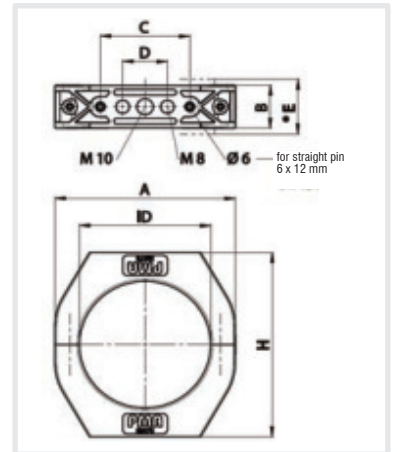
Tube clamp, BGN half shells
管夹, BGN瓦形件
2PT screw, 1 straight pin
2个PT型螺钉, 1个直形钉

Order No. black 订货号 黑色	Including half-shell GN 包括 瓦形件	Conduit size 软管规格 NW 标称内径	Dimensions 尺寸							Packing unit 包装量 (pcs/PU)	MOQ 最小起订量 黑色B (pcs)
			A (mm)	B (mm)	*E (mm)	C (mm)	D (mm)	H (mm)	Ø ID (mm)		
# BLH-R56G	BGN-S56G/70	56	121.0	30.0	38.0	60.0	30.0	128.0	66.6	20	500
# BLH-R70G	BGN-S70G	70	121.0	30.0	38.0	60.0	30.0	128.0	80.6	20	500
# BLH-R70	-	-	121.0	30.0	-	60.0	30.0	128.0	88.0	20	500

标记为 # 的产品有最小起订量 (MOQ)

The above data is given based on “Technical Data Sheet” DB-Nr.40501-00 for reference only.

For details and the most update version, please contact our sales department for “The latest Technical Data Sheet”.
以上数据来源于PMA工厂“技术数据表”DB-Nr.40501-00。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

**SH tube clamp** 管夹

In automation applications for guiding or fixing PMA conduits. 适用于自动化行业, 便于PMA软管的导向和固定。

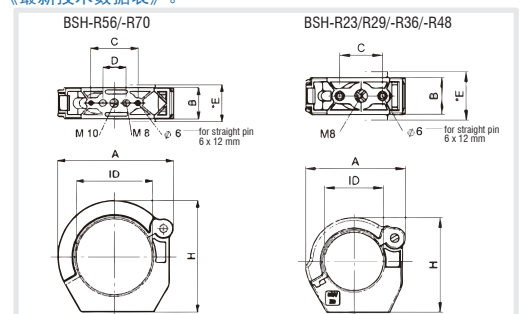


- High-grade, specially formulated polyamide 6
高级, 特殊配方聚酰胺6制成
- Single-piece, robust construction, easy installation
一体式, 坚固结构, 易于安装
- To be used in combination with standard half-shells GN, data sheet No. 40505
要使用标准的瓦形件GN组合, “技术数据表” No.40505
- Space saving design allows optimum installation in automation applications
采用节省空间的设计, 在自动化应用中达到最佳的安装效果
- Extends lifecycle of the cable pack due to reduced mechanical stress (avoiding torsion)
由于减少机械应力(避免扭曲)延长管线包的生命周期
- Increased freedom of movement for cable looms with individual combination of functional inserts:
利用不同功能的插入件可个别进行布线, 同时相应地增加了运动的灵活性:
- swivel base DKLK, data sheet No. 40503
DKLK带有转器设计的旋转底座, DB-Nr.40503
- ball joint half-shells BSSK, data sheet No. 40516
BSSK 球节瓦形件, DB-Nr.40516
- ball joint sleeve TK, data sheet No. 40510
TK 球节套筒, DB-Nr.40510
- ball joint termination KE, data sheet No. 40515
KE 球节端件, DB-Nr.40515
- gliding bush FE, data sheet No. 40520
FE 滑动套筒, DB-Nr.40520
- half-shells GS, data sheet No. 40507
GS 瓦形件, DB-Nr.40507
- Free from halogens and cadmium
不含卤素和镉
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围: -40°C 至 +105°C; 短期温度: +160°C
- Content of delivery: tube clamp, 1 PT screw, 1 straight pin
包含配件: 管夹, 1个PT型螺钉, 1个直形钉

Order No. black 订货号 黑色	fits to half-shells 适配瓦形件		Dimensions 尺寸							Packing unit 包装量 (pcs/PU)
	strain relief 消除应力	slide 滑动	A (mm)	B (mm)	*E (mm)	C (mm)	D (mm)	H (mm)	Ø ID (mm)	
BSH-R23	BGN-S23T	-	63.3	26.0	34.0	30.0	-	60.5	34.9	30
BSH-R23	BGN-S23G	-	63.3	26.0	34.0	30.0	-	60.5	34.9	30
BSH-R29	BGN-S29T	-	70.3	26.0	34.0	30.0	-	67.0	41.3	30
BSH-R29	BGN-S29G	BGN-R29	70.3	26.0	34.0	30.0	-	67.0	41.3	30
BSH-R36	BGN-S36T	-	81.6	26.0	36.0	30.0	-	77.5	49.1	20
BSH-R36	BGN-S36G	BGN-R36	81.6	26.0	36.0	30.0	-	77.5	49.1	20
BSH-R48	BGN-S48T	-	95.8	26.0	34.0	30.0	-	91.0	61.0	20
BSH-R48	BGN-S48G	BGN-R48	95.8	26.0	34.0	30.0	-	91.0	61.0	20
BSH-R56	BGN-S56G	BGN-R56	112.6	30.0	38.0	60.0	30.0	109.8	75.5	20
BSH-R70	BGN-R70G	BGN-R70	148.0	39.5	45.0	60.0	30.0	142.5	96.5	20

The above data is given based on “Technical Data Sheet” DB-Nr.40500-08 for reference only.

For details and the most update version, please contact our sales department for “The latest Technical Data Sheet”.
以上数据来源于PMA工厂“技术数据表”DB-Nr.40500-08。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。



SSK Ball-joint half shells 球节瓦形件

Axial fixation allowing conduit rotation and 15°-20° freedom of movement. In automation applications for supporting PMA conduits
允许软管旋转和15°-20°自由度的轴向固定运动。适用于自动化行业，可用于支撑PMA软管



- High-grade, specially formulated polyamide 6
高级，特殊配方聚酰胺6制成
- Increases freedom of movement for conduits
增加软管运动时的灵活性
- Optimum solution for cable guidance in automation applications
在自动化应用中对引导电缆提供最佳的解决方案
- Extends lifecycle of conduit and cables due to reduced mechanical stress
由于降低相应的机械应力，从而延长软管和电缆的使用寿命
- Easy to install and exchange
易于安装和更换
- Free of halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Temperature range: -45°C to +105°C; short-term: +160°C
温度范围：-45°C 至 +105°C；短期温度：+160°C

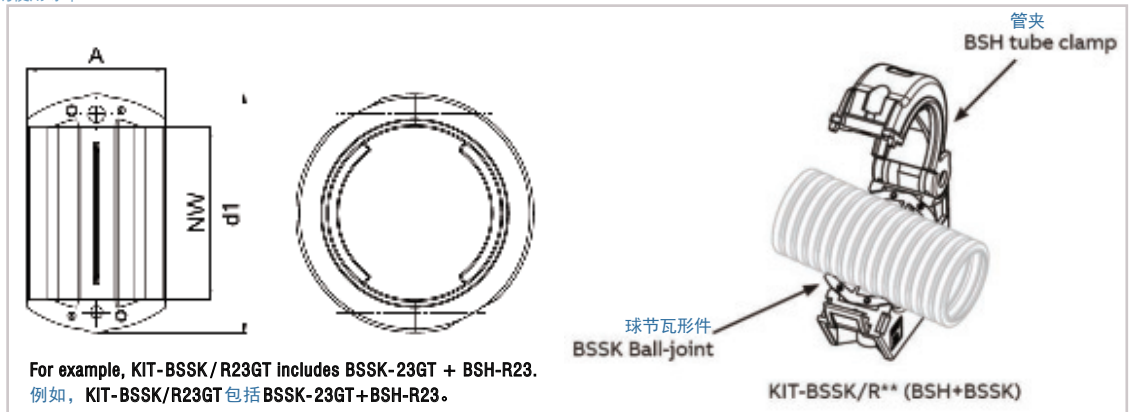
Order No. black 订货号 黑色	Conduit profile 软管 波纹	Fits to tube clamp SH 适配 SH管夹	Complete Kit part number 套餐型号	Fits to conduit size NW 适配软管 标称内径 (mm)	Outside diameter 外径 (mm)	Dimensions width 宽度 (mm)	Packing unit 包装量 (pcs/PU)
BSSK-23GT	T + G	BSH-R23	KIT-BSSK / R23GT	23	42.2	27	30
BSSK-29GT	T + G	BSH-R29	KIT-BSSK / R29GT	29	48.1	28	20
BSSK-36GT	T + G	BSH-R36	KIT-BSSK / R36GT	36	55.0	30	20
BSSK-48GT	T + G	BSH-R48	KIT-BSSK / R48GT	48	65.9	30	10
BSSK-56G	G	BSH-R56	KIT-BSSK / R56G	56	80.9	34	10

Profiles-fine (T); Profiles-coarse (G) 细波纹 (T); 粗波纹 (G)

The above data is given based on "Technical Data Sheet" DB-Nr.40516-01 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40516-01。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。



GN strain relief half-shell 消除应力瓦形件

These inserts for SH tube clamps fix the conduits against axial movements but still allow radial turning of the conduit within the clamps.
用于SH管夹的这种瓦形件可防止轴向移动，但仍可使软管在管夹内径向运动。



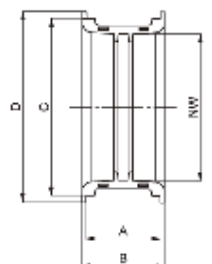
- High-grade formulated polyamide 6
高级合成聚酰胺6制成
- Easy installation
易于安装
- To be used in combination with tube clamp SH, data sheet No. 40500
与管夹SH配套使用，DB-Nr.40500
- Free of halogens and cadmium
不含卤素和镉
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围：-40°C 至 +105°C；短期温度：+160°C

Order No. black 订货号 黑色	Fits to tube clamp SH 适配 SH管夹	Fits to conduit size NW 适配软管 标称内径 (mm)	Conduit profile 软管 波纹	Dimensions 尺寸				Packing unit 包装量 (pcs/PU)
				A (mm)	B (mm)	C (mm)	D (mm)	
BGN-S23T	BSH-R23	23	T	26.0	34.0	34.5	39.5	30
BGN-S23G	BSH-R23	23	G	26.0	34.0	34.5	39.5	30
BGN-S29T	BSH-R29	29	T	26.0	34.0	41.0	47.0	30
BGN-S29G	BSH-R29	29	G	26.0	34.0	41.0	47.0	30
BGN-S36T	BSH-R36	36	T	26.0	36.5	49.0	55.0	20
BGN-S36G	BSH-R36	36	G	26.0	34.0	49.0	55.0	20
BGN-S48T	BSH-R48	48	T	26.0	34.0	60.5	66.5	20
BGN-S48G	BSH-R48	48	G	26.0	34.0	60.5	66.5	20
BGN-S56G	BSH-R56	56	G	30.0	38.0	75.0	81.0	10
BGN-R70G	BSH-R70	70	G	40.0	45.0	94.5	103.5	10

The above data is given based on "Technical Data Sheet" DB-Nr.40505-09 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40505-09。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。



GN strain relief half-shell reduction 消除应力减缩瓦形件

The GN strain relief half-shell reductions allow the application of PMA SH tube clamps and other automation accessories also for conduits of the next smaller dimension. Radial turning of the conduits within the reduction rings is possible.

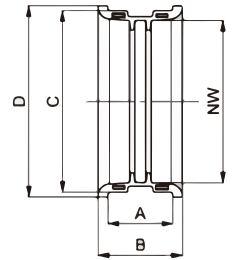
GN消除应力减缩瓦形件适用于PMA SH管夹和其他自动化附件,但适配软管时,应适配其小一号软管。在瓦形件内软管可径向转动。



Order No. black 订货号 黑色	Fits to tube clamp SH SH适配 管夹	Fits to conduit size NW 适配软管 标称内径 (mm)	Conduit profile 软管 波纹	Dimensions 尺寸				Packing unit 包装量 (pcs/PU)
				A (mm)	B (mm)	C (mm)	D (mm)	
BGN-R36GT/48	BSH-R48	36	T+G	26.5	34.0	60.0	66.5	20
BGN-R56G/70	BSH-R70	56	G	40.0	45.0	94.5	103.5	10
BGN-R56G/70G	BTR-R70G	56	G	27.0	35.0	76.0	80.0	10

- high-grade, specially formulated polyamide 6
高级, 特殊配方聚酰胺 6 制成
- Easy installation
易于安装
- To be used in combination with tube clamp SH, data sheet No. 40500
与管夹 SH 配套使用, DB-Nr.40500
- Half-shell reduction BGN-R56G/70G allows the use of conduit with NW56 and can be used with following products:
减缩瓦形件 BGN-R56G/70G 可配 NW56 系列软管, 并可与以下产品配套使用:
- ball joint sleeve TK with strain relief insert TR, data sheet No. 40510
球节套筒 TK 与消除应力插入件 TR, DB-Nr. 40510-00
- ball joint termination KE, data sheet No. 40515
球节端件 KE, DB-Nr. 40515
- Free of halogens and cadmium
不含卤素和镉
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围: -40°C 至 +105°C; 短期温度: +160°C

The above data is given based on "Technical Data Sheet" DB-Nr.40505-09. The above data is for reference only. For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40505-09。因厂家会随时更新数据,故相关数据仅供参考,如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。



Combinations
可行性组合选择

- Application for strain relief half-shell reduction BGN-R56G/70G
BGN-R56G/70G 消除应力减缩瓦形件的应用
- The BGN strain relief half-shell reductions from NW70 to NW56 can be used in BGN strain relief half-shells, in BTK ball joint sleeves with BTR strain relief inserts and in BKE ball joint terminations. They allow the use of conduits with NW 56.
组合1: NW70到NW56的BGN消除应力减缩瓦形件可应用于BGN消除应力瓦形件
组合2: NW70到NW56的BGN消除应力减缩瓦形件可应用于BTK球节套筒和BTR消除应力插入件
组合3: NW70到NW56的BGN消除应力减缩瓦形件可应用于BKE球节端件
综合上述, 所有组合都可适配NW56的软管

<p>BSH-R70 Tube clamp 管夹</p>	+	<p>BGN-R70G Strain relief half-shell 消除应力瓦形件</p>	+	<p>BGN-R56G/70G Strain relief half-shell reduction 消除应力减缩瓦形件</p>	<p>1. Version 组合1</p>			
<p>BSH-R70 Tube clamp 管夹</p>	+	<p>BTK-R70 Ball joint sleeve 球节套筒</p>	with	<p>BTR-R70G Strain relief insert 消除应力插入件</p>		+	<p>BGN-R56G/70G Strain relief half-shell reduction 消除应力减缩瓦形件</p>	<p>2. Version 组合2</p>
<p>BSH-R70 Tube clamp 管夹</p>	+	<p>BKE-R70G Ball joint termination 球节端件</p>	+	<p>BGN-R56G/70G Strain relief half-shell reduction 消除应力减缩瓦形件</p>		<p>3. Version 组合3</p>		

GN slide half-shell 滑动瓦形件

These inserts for SH tube clamps allow sliding of the conduit in the clamps and thus reduce axial stress on the conduit.
用于SH管夹的滑动瓦形件能让软管在管夹内滑动，从而降低软管的轴向应力。

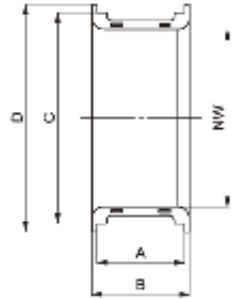


Order No. black 订货号 黑色	Fits to tube clamp SH 适配 SH管夹	Fits to conduit size NW 适配软管 标称内径 (mm)	Conduit profile 软管 波纹	Dimensions 尺寸				Packing unit 包装量 (pcs/PU)	MOQ 最小起订量 (pcs)
				A (mm)	B (mm)	C (mm)	D (mm)		
BGN-R29	BSH-R29	29	T+G	26.0	34.0	41.0	47.0	30	-
# BGN-R36/48	BSH-R48	36	T+G	26.5	34.0	60.0	66.5	20	20
BGN-R36	BSH-R36	36	T+G	26.0	36.0	49.0	55.0	20	-
BGN-R48	BSH-R48	48	T+G	26.0	34.0	60.5	66.5	20	-
BGN-R56	BSH-R56	56	G	30.0	38.0	75.0	81.0	10	-
BGN-R56S/70	BSH-R70	56	G	40.0	45.0	94.5	103.5	10	-
BGN-R70	BSH-R70	70	G	40.0	45.0	94.5	103.5	10	-

- High-grade formulated polyamide 6
高级合成聚酰胺6制成
- Easy installation
易于安装
- To be used in combination with tube clamp SH, data sheet No. 40500
与管夹SH配套使用, DB-Nr.40500
- Free of halogens and cadmium
不含卤素和镉
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围: -40°C 至 +105°C; 短期温度: +160°C

标记为#的产品有最小起订量(MOQ)

The above data is given based on "Technical Data Sheet" DB-Nr.40505-09 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40505-09。因厂家会随时更新数据,故相关数据仅供参考。
如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。



TK ball joint sleeve 球节套筒

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

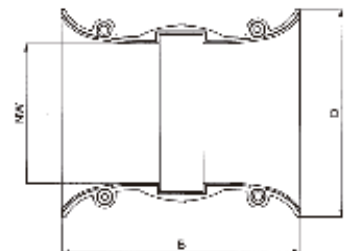
球节套筒可固定PMA软管上,同时具有转移机械应力功效。
与BSH管夹结合使用。
适用于机器人Dress Pack安装。



Order No. black 订货号 黑色	Strain relief 消除应力	Fits to conduit size NW 适配软管 标称内径 (mm)	Dimensions 尺寸		Fits to 适配	Packing unit 包装量 (pcs/PU)
			B (mm)	D (mm)		
New BTK-R36	BTK-R36+BTR-R36GT	36	104.0	66.0	BSH-R48	1
New BTK-R48	BTK-R48+BTR-R48GT	48	110.0	79.5	BSH-R56	1
-	BTK-R70+BTR-R70G+BGN-R56G/70G	56	138.5	121.0	BSH-R70	1
BTK-R70	BTK-R70+BTR-R70G	70	138.5	121.0	BSH-R70	1

The above data is given based on "Technical Data Sheet" DB-Nr.40510-06 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40510-06。因厂家会随时更新数据,故相关数据仅供参考。
如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- High-grade, specially formulated polyamide 6
高级,特殊配方聚酰胺6制成
- 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
与BSH结合使用时,球节套筒可允许倾斜度高达+/-10°以及轴向旋转360°,增加了电缆管线的自由度
- Trumpet-shaped openings restricts conduit bending radius, increasing product lifetime
喇叭型开口可有效的限制软管弯曲半径,延长产品寿命
- Combination with strain relief insert (BTR) allows to block axial conduit movement/sliding
与消除应力插入件(BTR)相结合,可阻止软管轴向移动/滑动
- Easy to install and exchange
易于安装和替换
- Very good UV resistance and weathering characteristics
非常好的抗紫外线和耐候性能
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C
- Content of delivery: 2 half shells, 4 screws
包含配件: 2片瓦形件, 4个螺钉



TR strain relief insert 消除应力插入件

The TR strain relief insert can be used to fix the conduit against axial movements in TK ball joint sleeves. Rotation of the conduit remains possible.
TR消除应力插入件可防止软管在TK球节套筒上的轴向运动，但仍可允许其径向旋转。



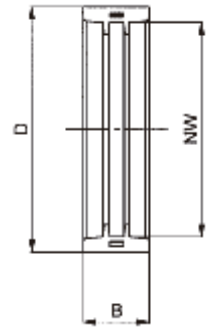
- Specially formulated polyamide 6
特殊配方聚酰胺6制成
- Free of halogens and cadmium
不含卤素和镉
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C
- Content of delivery: 2 half shells
包含配件: 2片瓦形件

Order No. black 订货号 黑色	Fits to conduit size NW 适配软管 标称内径 (mm)	Dimensions 尺寸		Fits to 适配	Packing unit 包装量 (pcs/PU)
		B (mm)	D (mm)		
New BTR-R36GT	36	27.5	49.5	BTK-R36	10
New BTR-R48GT	48	31.5	61.5	BTK-R48	10
BTR-R70G	70	24.5	91.0	BTK-R70	10

The above data is given based on "Technical Data Sheet" DB-Nr.40510-06 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40510-06。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

**KE ball joint termination 球节端件**

Ball joint termination allows fixation of a PMA conduit terminal. Used in combination with BSH tube clamps.
Suited for robotics dress pack installations, e.g. end piece of conduit at axis 6.

球节端件可固定到PMA软管终端上。与BSH管夹结合使用。
适用于机器人 Dress Pack安装等，例如6轴处的软管末端。

CE UK
CA



Order No. black 订货号 黑色	with reduction half-shell 适配 减缩瓦形件	Fits to conduit size NW 适配软管 标称内径 (mm)	Dimensions 尺寸		Fits to 适配	Packing unit 包装量 (pcs/PU)
			B (mm)	D (mm)		
New BKE-R36GT	—	36	85.0	122.0	BSH-R36	1
New BKE-R48GT	—	48	90.0	122.0	BSH-R48	1
BKE-R70G*	BGN-R56G/70G	56	126.5	122.0	BSH-R70	1
BKE-R70G	—	70	126.5	122.0	BSH-R70	1

*Reduction half-shell BGN-R56G/70G required in order to use for NW56 size conduit

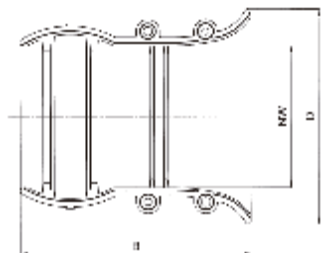
*适配NW56尺寸软管，需配套减缩瓦形件BGN-R56G/70G

The above data is given based on "Technical Data Sheet" DB-Nr.40515-06 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40515-06。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- High-grade, specially formulated polyamide 6
高级，特殊配方聚酰胺6制成
- Ball joint used in combination with BSH allows tilting of up to +/- 10° and 360° of axial rotation
与BSH结合使用时，球节端件可允许倾斜度高达+/-10°以及轴向旋转360°
- Trumpet-shaped opening restricts conduit bending radius, reduces mechanical stress and increases product lifetime
喇叭型开口可有效的限制软管弯曲半径，同时可降低运动中给软管带来的机械应力，并延长产品寿命
- Easy to install and exchange
易于安装和替换
- Additional strain relief possible in combination with the BKS cable star
可与BKS星状分线垫圈配套使用，具有消除应力效果
- Free of halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS和REACH合规性
- Very good UV resistance and weathering characteristics
非常好的抗紫外线和耐候性能
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C
- Content of delivery: 2 half shells + 2 x screws (NW36, NW48) / 4 x screws (NW70)
包含配件: 2片瓦形件 + 2个螺钉(NW36, NW48)/4个螺钉(NW70)



FE *gliding bush* 滑动套筒

The FE gliding bush can be fixed in the SH tube clamp and allows easy gliding of the conduit e.g. in combination with a specialised pull back system.
FE滑动套筒可固定在SH管夹上, 使软管易于滑动, 例如: 与某一特定回拉装置组合使用。

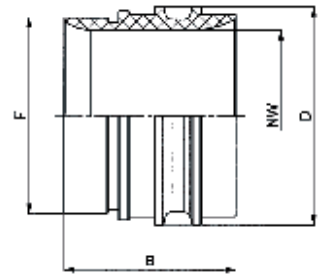


Order No. black 订货号 黑色	Fits to conduit size NW 适配软管 标称内径 (mm)	Dimensions 尺寸			Packing unit 包装量 (pcs/PU)	MOQ 最小起订量 (pcs)
		B (mm)	D (mm)	F (mm)		
# BFE-R70	70	77.5	102.5	93.0	18	180

标记为 # 的产品有最小起订量 (MOQ)

The above data is given based on "Technical Data Sheet" DB-Nr.40520-03 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40520-03。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- Specially formulated polyamide 6
特殊配方聚酰胺6制成
- Will be fixed in the tube clamp SH
将固定在管夹SH中
- Used as termination for fixing a pull back mechanism
作为末端应用固定回拉装置
- Allows easy gliding of the conduit
使软管易于滑动
- Free of halogens and cadmium
不含卤素和镉
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围: -40°C 至 +105°C; 短期温度: +160°C



DKLK *heavy duty swivel base* 重型旋转底座

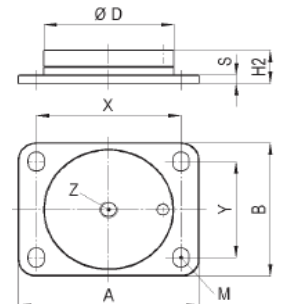
In automation and robotic applications. 应用于自动化和机器人方面。



Order No. black 订货号 黑色	Fits to 适配	Dimensions 尺寸							Fits to screws 适配螺钉		Packing unit 包装量 (pcs/PU)
		A (mm)	B (mm)	S (mm)	H2 (mm)	Ø D (mm)	X (mm)	Y (mm)	Z M	M	
DKLK-R56X56	BSH-R29/BSH-R36/BSH-R48	56.0	56.0	5.0	21.5	40.0	43.0	43.0	M 8	M 6	1
DKLK-R100X80	BSH-R56/BSH-R70	100.0	80.0	5.0	20.0	72.0	80.0	57.5	M10	M 8	1
DKLK-R100X80/01	BSH-R29/BSH-R36/BSH-R48	100.0	80.0	5.0	23.0	60.0	80.0	57.5	M 8	M 8	1

The above data is given based on "Technical Data Sheet" DB-Nr.40503-03 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40503-03。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- Black anodized aluminium
黑色阳极化铝
- Robust construction
坚固结构
- Sealed high quality bearing with minimal play
带最小游隙的高质量密封轴承
- Allows rotation of cable pack supports
允许管线包组件旋转
- Suitable for high mechanical forces in all assembly positions
适用于在所有装配位置中相对较高的机械力要求
- BSH tube clamp easy to install on the bearing with central screw
利用附上螺钉容易安装BSH型系列管夹在轴承上
- Cylinder pin prevents twisting of the clamp on the bearing
圆柱销防止管夹在轴承上扭曲
- Temperature range: -50°C to +105°C
温度范围: -50°C 至 +105°C
- Content of delivery: swivel base with transition piece, 1 allen screw
包含配件: 带有运转器设计的旋转底座, 1个螺丝钉



SS/SV abrasion protection sleeves 防磨套管

Abrasion protection for corrugated conduits in position exposed to chafing. 用于不同场所对波纹管防磨保护。



- High-grade, specially formulated polyamide 6
高级, 特殊配方聚酰胺6制成
- Increased the life time of moving conduits
增加动态软管的使用寿命
- Excellent chafing characteristics
极好的防磨特性
- Very good chemical properties
非常好的化学性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Very good UV resistance and weathering characteristics
非常好的抗紫外线和耐候性能
- EN 45545-2 HL3 (R22& R23)
HL3, 根据EN45545-2车内软管R22 / 车外软管R23标准
- NFPA 130
NFPA 130
- UL 94 (V0)
UL 94 (V0)
- Fits both conduit profiles - fine (T) and coarse (G)
适用软管类型 - 细波纹 (T) 和粗波纹 (G)
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C
- Content of delivery: abrasion protection sleeves,
2 pcs. PT-screws KA 35 x 14
包括配件: 防磨套管, 2个PT-螺钉 KA 35 x 14

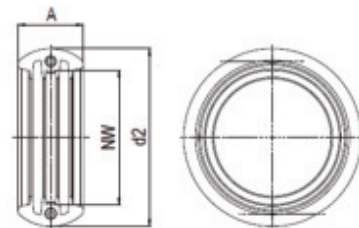
Order No. 订货号	Conduit size 软管规格 NW 标称内径 (mm)	Dimensions 尺寸		Packing unit 包装量 (pcs/PU)	MOQ 最小起订量 (pcs)
		d2 (mm)	A (mm)		
# BSS-10	10	30.0	18.0	100	100
# BSS-12	12	33.0	20.0	50	50
BSS-17	17	42.0	22.0	50	-
BSS-23	23	49.0	26.0	30	-
BSS-29	29	55.0	26.0	20	-
BSS-36	36	63.0	30.0	20	-
BSS-48	48	75.0	30.0	10	-
BSS-56G	56	90.0	33.0	10	-
BSV-70G	70	108.0	60.0	10	-

标记为 # 的产品有最小起订量 (MOQ)

The above data is given based on "Technical Data Sheet" DB-Nr.40225-06 / 40220-03 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40225-06 / 40220-03。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

**SS-OS** screwless abrasion protection sleeve 无螺钉式防磨套管

Screwless abrasion protection for corrugated conduits in positions exposed to chafing.

无螺钉式防磨套管应用于波纹管易磨损的位置。



NEW / 新

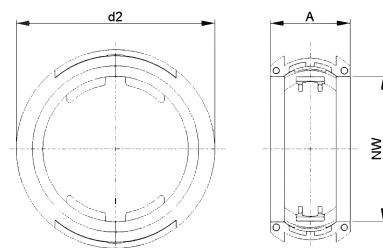
Order No. black 订货号 黑色	Conduit size 软管规格 NW 标称内径 (mm)	Dimensions 尺寸		Packing unit 包装量 (pcs/PU)
		d2 (mm)	NW2 (mm)	
BSS-36-OS	36	63.0	30.0	20
BSS-48-OS	48	75.0	30.0	10
BSS-70-OS	70	104.0	44.0	10

The above data is given based on "Technical Data Sheet" DB-Nr.40235-00 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40235-00。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- High-grade, specially formulated polyamide 6
高级特殊配方聚酰胺6制成
- Increases lifetime of moving conduits in dynamic applications
延长动态软管的使用寿命
- Optimized for high impact resistance
针对高抗冲击强度进行了优化
- No metal parts, no screws
无金属零件, 无螺钉
- Tool-free installation
无需工具安装
- Easy (re-) positioning without full disassembly
无需完全拆卸即可轻松(重新)定位
- Excellent chafing characteristics
极好的防磨特性
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Very good UV resistance and weathering characteristics
非常好的抗紫外线和耐候性能
- Fits both conduit profiles - fine (T) and coarse (G)
适用软管类型 - 细波纹 (T) 和粗波纹 (G)
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C



GS cable star half-shell 星状分线垫圈用瓦形件

The GS half-shells for cable star assembly with strain relief are used as insert to the SH tube clamp to fix a loom of cables of special dimensions.
星状分线垫圈用消除应力瓦形件应用于SH管夹上，用以固定不同大小特殊规格的电缆。



Order No. black 订货号 黑色	Fits to conduit size NW 适配软管 标称内径 (mm)	Dimensions 尺寸					Packing unit 包装量 (pcs/PU)
		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	
BGS-R70	70	40.0	45.0	22.5	104.5	82.5	10

The above data is given based on "Technical Data Sheet" DB-Nr.40507-07 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40507-07。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- High-grade, specially formulated polyamide 6
高级，特殊配方聚酰胺6制成
- Free of halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围：-40°C 至 +105°C; 短期温度：+160°C



BKS cable star 星状分线垫圈

The BKS cable star is used for arrangement and slight strain relief of hoses and leads in cable assemblies.
BKS 星状分线垫圈在电缆组件中用于分布电线和导管，并且略带消除应力效果。

The BKS cable star must be fixed with BGS half-shells or with BKE ball joint termination.
BKS 星状分线垫圈，需适配 BGS 瓦形件或 BKE 球节端件。

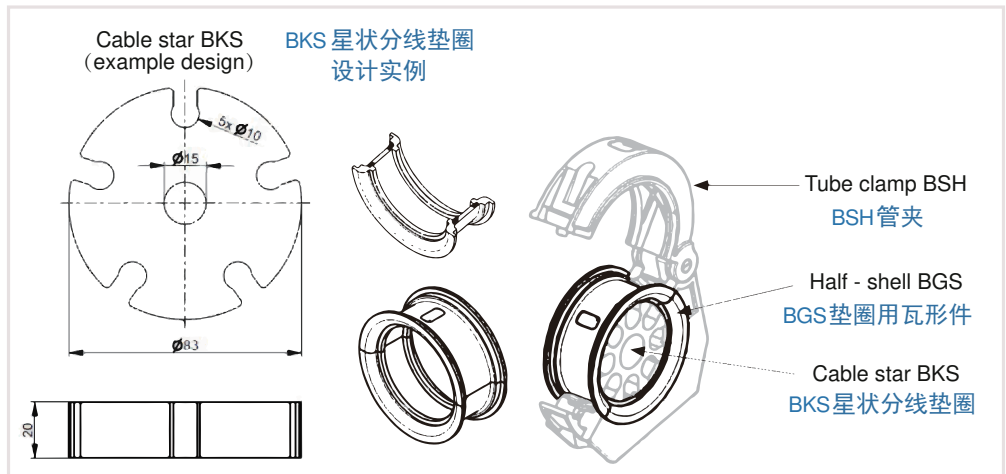
Both BGS half-shells and BKE ball joint termination can be mounted with BSH tube clamps.
BGS 垫圈式瓦形件和 BKE 球节端件均可适配于 BSH 管夹。



Order No. black 订货号 黑色	Fits to 适配	Fits to conduit size NW 适配软管 标称内径 (mm)	Dimensions 尺寸		Packing unit 包装量 (pcs/PU)
			widht 宽度 (mm)	Ød2 (mm)	
BKS-R70 / V*	BGS-R70 BKE-R70G	70	20.0	83.0	5

The above data is given based on "Technical Data Sheet" DB-Nr.40507-09 for reference only.
For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".
以上数据来源于PMA工厂“技术数据表”DB-Nr.40507-09。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

- BKS: special polymer
BKS: 特殊聚合物
- BGS: high-grade, specially formulated polyamide 6
BGS: 高级，特殊配方聚酰胺6制成
- The BKS cable star is a non-standard product and will be tailor made to your needs
BKS 星状分线垫圈属于非标准产品，可按需定制
- Prior to production, the following parameters need to be defined
生产前，需要确认以下参数：
- desired number and diameters of openings
所需开口数量和直径
- positioning of openings (pull-through or side-access necessary)
开口定位（需要穿过或侧面进入）
- If specific arrangement is requested, please share CAD drawing
如需特制产品，请提供CAD图纸
- Free of halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Content of delivery: Order Cable star and half-shells individually
包装配件：分别订购星状分线垫圈和垫圈用瓦形件
- Temperature range: -40°C to +105°C; short-term: +160°C
温度范围：-40°C 至 +105°C; 短期温度：+160°C



AS conduit support sleeve 软管支撑护套

Within PMAFLEX conduit type PUET in connection with PMA connecting parts.
适用于PMAFLEX系列的PUET产品，可与PMA管接头配套使用。



- High-grade, specially formulated polyamide 6
高级，特殊配方聚酰胺6制成
- Increases the maximum system pull-out strength
增加抗拉强度到最大值
- Protects cables and wires against damage due to sharp edges
where no connectors are installed
免受未安装管接头时软管锋利边缘造成的损坏
- Very good chemical properties
非常好的化学性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS和REACH合规性
- Fits conduit profile - fine (T)
适用软管类型-细波纹 (T)
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C

Order No. black 订货号 黑色	Fits to conduit size NW 适配软管规格 标称内径 (mm)	Dimensions 尺寸			Packing unit 包装量 (pcs/PU)	MOQ 最小起订量 (pcs)
		L (mm)	d1 (mm)	d2 (mm)		
# BAS-29T	29	34	25.5	30.0	20	800
# BAS-36T	36	47	33.5	38.0	20	20
BAS-48T	48	47	44.0	50.0	10	-

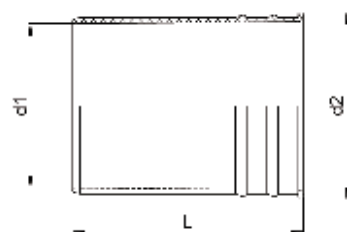
Profiles - fine (T); Profiles - coarse (G) 细波纹 (T); 粗波纹 (G)

The above data is given based on "Technical Data Sheet" DB-Nr.40215-03 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40215-03。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

标记为 # 的产品有最小起订量 (MOQ)

**ES** conduit end support sleeve 软管末端支撑护套

Within PMA robotic / automation conduits in connection with PMA connection parts.
适用于PMA机器人/自动化软管内，可与PMA管接头配套使用。



- High-grade, specially formulated polyamide 6
高级，特殊配方聚酰胺6制成
- Increases the maximum system pull-out strength
增加抗拉强度到最大值
- Very good chemical properties
非常好的化学性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS和REACH合规性
- Fits conduit profile - coarse (G)
适用软管类型-粗波纹 (G)
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C

Order No. black 订货号 黑色	Fits to conduit size NW 适配软管规格 标称内径 (mm)	Dimensions 尺寸			Packing unit 包装量 (pcs/PU)
		d1 (mm)	d2 (mm)	A (mm)	
BES-48G	48	43.5	51.0	18.0	10
BES-70G	70	63.0	80.0	23.0	10

The above data is given based on "Technical Data Sheet" DB-Nr.40210-05 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.40210-05。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。



SGS tube clamps 管夹

In wide range of applications in all industries. 在工业行业中被广泛的应用。

CE



- Clamp: galvanized steel (stainless steel available on request)
钢制镀锌 (可根据要求提供不锈钢)
- Profile: elastomer (EPDM)
外包弹性体 (EPDM)
- For the mounting of static conduits
用于静态软管安装
- Smooth connection to PMAFLEX corrugated conduits
平滑固定PMAFLEX软管
- Good resistance to ozone and ageing
良好的抗臭氧和耐老化性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C

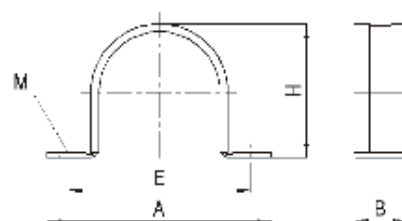
Order No. black 订货号 黑色	Conduit size 软管规格 NW 标称内径 (mm)	Dimensions 尺寸					Packing unit 包装量 (pcs/PU)	MOQ 最小起订量 黑色 (pcs)
		H (mm)	E (mm)	A (mm)	B (mm)	M (mm)		
SGS-36	36	48.0	64.4	79.4	19.0	2 x M6	20	-
# SGS-48	48	58.0	76.4	91.4	19.0	2 x M6	20	20
SGS-56	56	72.0	96.0	116.0	25.0	2 x M8	10	-
SGS-70	70	85.0	108.0	155.0	25.0	2 x M8	10	-
# SGS-95	95	110.0	135.0	195.0	25.0	2 x M8	10	10
# SGS-125	125	152.0	175.0	195.0	25.0	2 x M8	10	10

The above data is given based on "Technical Data Sheet" DB-Nr.60021-08 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.60021-08。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

标记为 # 的产品有最小起订量 (MOQ)



GH tube clamps 管夹

In wide range of applications in all industries. 在工业行业中被广泛的应用。

CE



- High-grade, specially formulated polyamide 6
高级, 特殊配方聚酰胺6制成
- One-piece design
一体式设计
- Integrated rib provides axial strain relief
集成的肋状凸起设计, 有效消除轴向应力
- Allows turning of the conduit thus avoiding torsion stresses
允许软管径向运动避免产生应力
- Pre-fixation on the conduit possible
可以预先安装在软管上
- Allows solid fixation with two screws
用两个螺钉固定本体
- No corrosion
防腐蚀
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Very good UV resistance and weathering characteristics, particularly in black
非常好的抗紫外线和耐候性能, 尤其是黑色
- Fits both conduit profiles - fine (T) and coarse (G)
适用软管类型-细波纹 (T) 和粗波纹 (G)
- Temperature range: -50°C to +105°C; short-term to +160°C
温度范围: -50°C 至 +105°C; 短期范围: +160°C

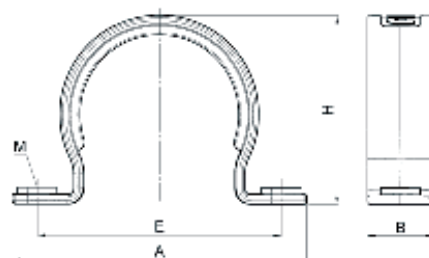
Order No. black 订货号 黑色	Order No. grey 订货号 灰色	Conduit size 软管规格 NW 标称内径 (mm)	Dimensions 尺寸					Packing unit 包装量 (pcs/PU)	MOQ 最小起订量 灰色S (pcs)
H (mm)	E (mm)	A (mm)	B (mm)	M (mm)					
BGH-23	# SGH-23	23	31.5	46.0	58.0	16.0	2 x M5	50	2100
BGH-29	# SGH-29	29	37.5	55.0	70.0	19.0	2 x M6	50	1000
BGH-36	# SGH-36	36	46.0	65.0	80.0	24.0	2 x M6	50	600
BGH-48	# SGH-48	48	58.5	78.0	94.0	24.0	2 x M6	50	600
BGH-56	# SGH-56	56	72.0	98.0	118.0	26.0	2 x M8	10	500
BGH-70	# SGH-70	70	85.0	110.0	130.0	30.0	2 x M8	10	480
BGH-95	# SGH-95	95	112.5	136.0	156.0	30.0	2 x M8	10	480

The above data is given based on "Technical Data Sheet" DB-Nr.60025-05 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.60025-05。因厂家会随时更新数据，故相关数据仅供参考，如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

标记为 # 的产品有最小起订量 (MOQ)



GG flange, straight 法兰, 直型

For cable protection systems in a wide range of applications. 在电缆保护系统中被广泛地应用。



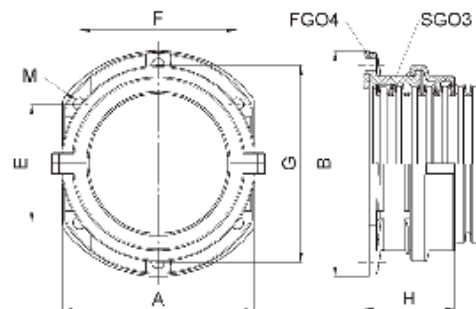
- High-grade, specially formulated polyamide 6
高级, 特殊配方聚酰胺6制成
- Flange seal: FGO4 made from EPDM, FGO4/01 made from NBR
法兰密封圈: FGO4由EPDM制成, FGO4/01由NBR制成
- Very high impact resistance
非常高的抗冲击强度
- High conduit pull-out strength
高强度的抗拉能力
- Vibration-proof connection to PMAFLEX conduits
配合PMAFLEX软管使用具有很好的防震作用
- Selectable flange seal included
包括可选法兰密封圈
- Very good chemical properties
非常好的化学性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Very good UV resistance and weathering characteristics, particularly in black
非常好的抗紫外线和耐候性能, 尤其是黑色
- EN 45545-2 HL3 (R22 & R23)
HL3, 根据EN45545-2车内软管R22/车外软管R23标准
- NFPA 130
NFPA 130
- UL 94 (V0); UL 1696 (UL file E80294)
UL 94 (V0); UL 1696 (UL 文件 E80294)
- Fits both conduit profiles-fine (T) and coarse (G)
适用软管类型-细波纹 (T) 和粗波纹 (G)
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C
- Content of delivery: PMAGRIP flange, flange sealing (FGO4 or FGO4/01), conduit sealing (SG03)
包装配件: PMAGRIP 法兰, 法兰密封圈 (FGO4 或 FGO4/01), 软管密封圈 (SG03)

Order No. black 订货号 黑色	Order No. grey 订货号 灰色	Conduit size 软管规格 NW 标称内径 (mm)	Dimensions 尺寸							Packing unit 包装量 (pcs/PU)
			A (mm)	B (mm)	H (mm)	E (mm)	F (mm)	G (mm)	M (mm)	
BGG-56	SGG-56	56	82.0	97.0	42.0	60.0	66.0	-	4 x M6	10
BGG-70	SGG-70	70	97.0	114.0	48.0	60.0	80.0	100.0	6 x M6	10
BGG-95	SGG-95	95	126.0	146.0	53.0	74.0	108.0	131.0	6 x M6	10
BGG-125	SGG-125	125	-	194.0	79.0	88.5	153.5	177.0	6 x M6	5

The above data is given based on "Technical Data Sheet" DB-Nr.37000-10 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.37000-10。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。

**GO** flange, 90° elbow 法兰, 90°弯头

For cable protection systems in a wide range of applications. 在电缆保护系统中被广泛地应用。



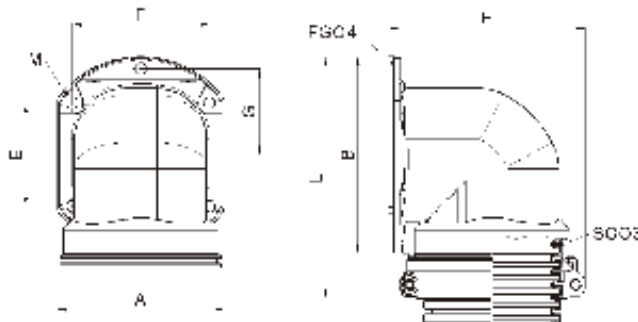
- High-grade, specially formulated polyamide 6
高级, 特殊配方聚酰胺6制成
- Flange seal: FGO4 made from EPDM, FGO4/01 made from NBR
法兰密封圈: FGO4由EPDM制成, FGO4/01由NBR制成
- Very high impact resistance
非常高的抗冲击强度
- High conduit pull-out strength
高强度的抗拉能力
- Vibration-proof connection to PMAFLEX conduits
配合PMAFLEX软管使用具有很好的防震作用
- Selectable flange seal included
包括可选法兰密封圈
- Very good chemical properties
非常好的化学性能
- Free from halogens and cadmium
不含卤素和镉
- RoHS and REACH compliant
RoHS 和 REACH 合规性
- Very good UV resistance and weathering characteristics, particularly in black
非常好的抗紫外线和耐候性能, 尤其是黑色
- EN 45545-2 HL3 (R22 & R23)
HL3, 根据EN45545-2车内软管R22/车外软管R23标准
- NFPA 130
NFPA 130
- UL 94 (V0); UL 1696 (UL file E80294)
UL 94 (V0); UL 1696 (UL 文件 E80294)
- Fits both conduit profiles-fine (T) and coarse (G)
适用软管类型-细波纹 (T) 和粗波纹 (G)
- Temperature range: -50°C to +105°C; short-term: +160°C
温度范围: -50°C 至 +105°C; 短期温度: +160°C
- Content of delivery: PMAGRIP flange, flange sealing (FGO4 or FGO4/01), conduit sealing (SG03)
包装配件: PMAGRIP 法兰, 法兰密封圈 (FGO4 或 FGO4/01), 软管密封圈 (SG03)

Order No. black 订货号 黑色	Order No. grey 订货号 灰色	Conduit size 软管规格 NW 标称内径 (mm)	Dimensions 尺寸							Packing unit 包装量 (pcs/PU)	
			A (mm)	B (mm)	H (mm)	E (mm)	F (mm)	G (mm)	L (mm)		M (mm)
BGO-56	SGO-56	56	82.0	97.0	101.0	60.0	66.0	-	122.0	4 x M6	10
BGO-70	SGO-70	70	97.0	114.0	115.0	60.0	80.0	50.0	142.0	6 x M6	10
BGO-95	SGO-95	95	126.0	146.0	149.0	74.0	108.0	65.5	175.0	6 x M6	10

The above data is given based on "Technical Data Sheet" DB-Nr.37010-11 for reference only.

For details and the most update version, please contact our sales department for "The latest Technical Data Sheet".

以上数据来源于PMA工厂“技术数据表”DB-Nr.37010-11。因厂家会随时更新数据, 故相关数据仅供参考, 如要了解详细和最新技术资料请联系我司销售部索取《最新技术数据表》。









Tube clamp and half-shell 管夹和瓦形件

	BSH	BGN	BFE	BGN	DKLK
					
Conduit size 软管规格	Tube clamp 管夹	Slide half-shell 滑动瓦形件	Gliding Bush 滑动套筒	Strain relief half-shell 消除应力瓦形件	Swivel base 旋转底座
23	BSH - R23			BGN - S23*	DKLK - R56x56
29	BSH - R29	BGN - R29		BGN - S29*	DKLK - R56x56
36	BSH - R36	BGN - R36		BGN - S36*	DKLK - R56x56
48	BSH - R48	BGN - R48		BGN - S48*	DKLK - R56x56
56	BSH - R56	BGN - R56		BGN - S56G	DKLK - R100x80
70	BSH - R70	BGN - R70	BFE - R70	BGN - R70G	DKLK - R100x80
					
		BSH + BGN	SH + FE	BSH + BGN	BSH + DKLK

Tube clamp and ball joint sleeve 管夹和球节套筒

	BSH	BSSK	BTK	BTR + (BGN)	DKLK
					
Conduit size 软管规格	Tube clamp 管夹	Ball joint half shells 球节瓦形件	Ball joint sleeve 球节套筒	Strain relief insert 消除应力插入件	Swivel base 旋转底座
23	BSH - R23	BSSK - 23GT			DKLK - R56x56
29	BSH - R29	BSSK - 29GT			DKLK - R56x56
36	BSH - R36	BSSK - 36GT	BTK - R36	BTR - R36GT	DKLK - R56x56
48	BSH - R48	BSSK - 48GT	BTK - R48	BTR - R48GT	DKLK - R56x56
56	BSH - R56	BSSK - 56G			DKLK - R56x56
56	BSH - R70		BTK - R70	BTR - R70G + BGN - R56G / 70G	DKLK - R100x80
70	BSH - R70		BTK - R70	BTR - R70G	DKLK - R100x80
					
		BSH + BSSK	BSH + BTK	BSH + BTK + BTR + (BGN)	BSH + DKLK

Tube clamp and ball joint termination 管夹和球节端件

	BSH	BKE	BGN	DKLK
				
Conduit size 软管规格	Tube clamp 管夹	Ball joint termination 球节端件	Strain relief half-shell 消除应力瓦形件	Swivel base 旋转底座
36	BSH - R36	BKE - R36GT		DKLK - R56x56
48	BSH - R48	BKE - R48GT		DKLK - R56x56
56	BSH - R70	BKE - R70G	BGN - R56G / 70G	DKLK - R100x80
70	BSH - R70	BKE - R70G		DKLK - R100x80
				
			BSH + BKE + (BGN)	BSH + DKLK

* Replace with "T" to order fine profile or "G" to order coarse profile * = "T" 代表细波纹或 "G" 代表粗波纹