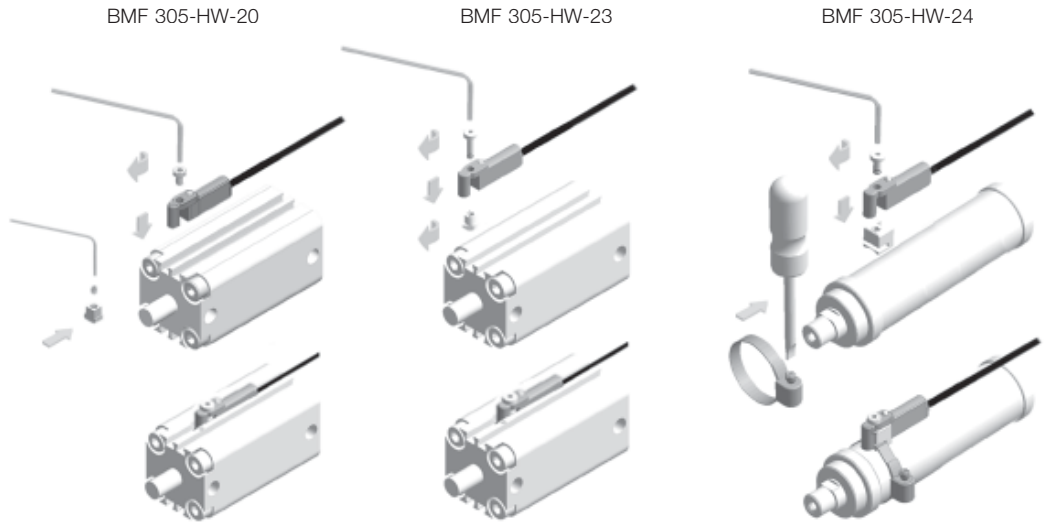


Sensors for Pneumatic Cylinders

Mounting brackets,
selection guide,
installation for BMF 305



Advantages



Can be inserted in slot from above. Anytime! Even later! Fast! Saves time!



Switchpoint can be adjusted in seconds! Turn screw one revolution, adjust position, tighten.



Switchpoint cannot be lost. Even when you replace the sensor, the adjusted switchpoint is determined by the mounting bracket, not by the sensor.

Ordering code Advantages Cylinder type Mounting bracket

BMF 305-HW-17

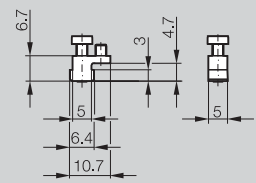


T-slot



PX1207a

e.g. Festo, SMC



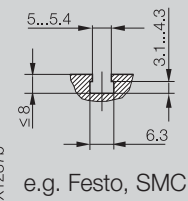
BMF 305-HW-20



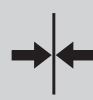
T-slot

PX1287b

e.g. Festo, SMC



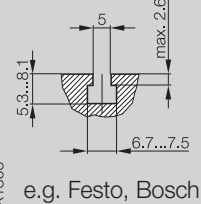
BMF 305-HW-22



T-slot

PX1305

e.g. Festo, Bosch



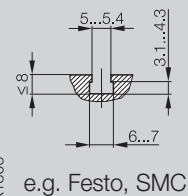
BMF 305-HW-23



T-slot

PX1306

e.g. Festo, SMC



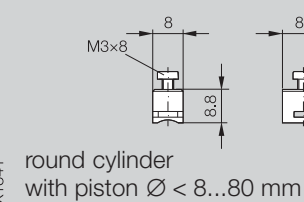
BMF 305-HW-24



without slot

PX1341

round cylinder with piston $\varnothing < 8 \dots 80$ mm



Tube cuffs for BMF 305-HW-24

Piston \varnothing	Tube cuff size
< 8	0
8...16	1
20, 25	2
32	3
40	4
50	5
63	6
80	7

Tube cuff size _ please order separately

Advantages

Sensor disappears in the slot!



Switchpoint is adjusted in seconds!
Turn screw one revolution, adjust position, tighten.



Switchpoint cannot be lost. Even if you replace the sensor the adjusted switchpoint is determined by the mounting bracket, not the sensor.



Ordering code

Advantages

Cylinder type

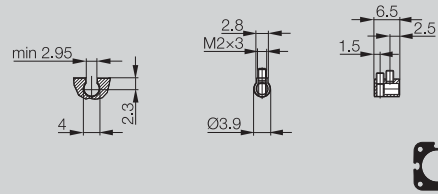
Mounting bracket

BMF 303-HW-28



C-slot e.g. SMC

PX1538

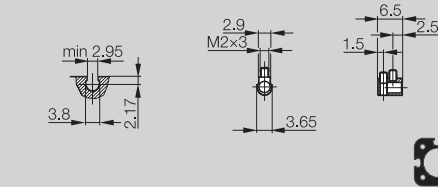


BMF 303-HW-30

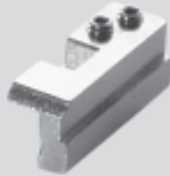


C-slot e.g. Festo slot-10

PX1553

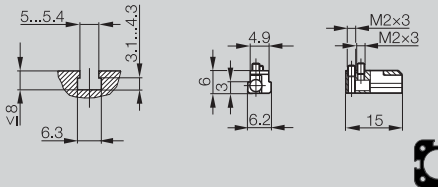


BMF 303-HW-33



T-slot e.g. Festo slot-8, Bosch, SMC

PX1560

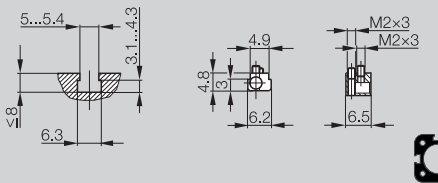


BMF 303-HW-40



T-slot e.g. Festo slot-8, Bosch, SMC

PX1619

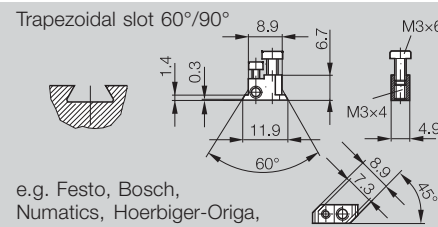


BMF 303-HW-44



Trapezoidal slot 60°/90°

PX1657

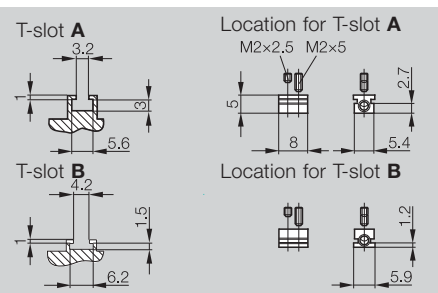


BMF 303-HW-51



T-slot **A**

PX1578a

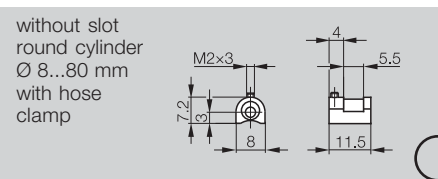


BMF 303-HW-59



without slot
round cylinder
Ø 8...80 mm
with hose
clamp

PX1832a

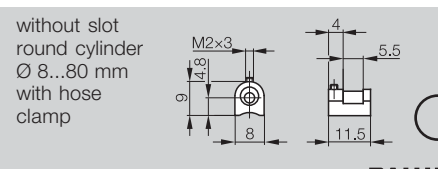


BMF 303-HW-61



without slot
round cylinder
Ø 8...80 mm
with hose
clamp

PX1835a



Tube cuffs for BMF 303-HW-59/61

Piston Ø	Tube cuff size
8...10	1
12...25	2
32	3
40	4
50	5
63	6
80	7

Tube cuff size _ please order separately

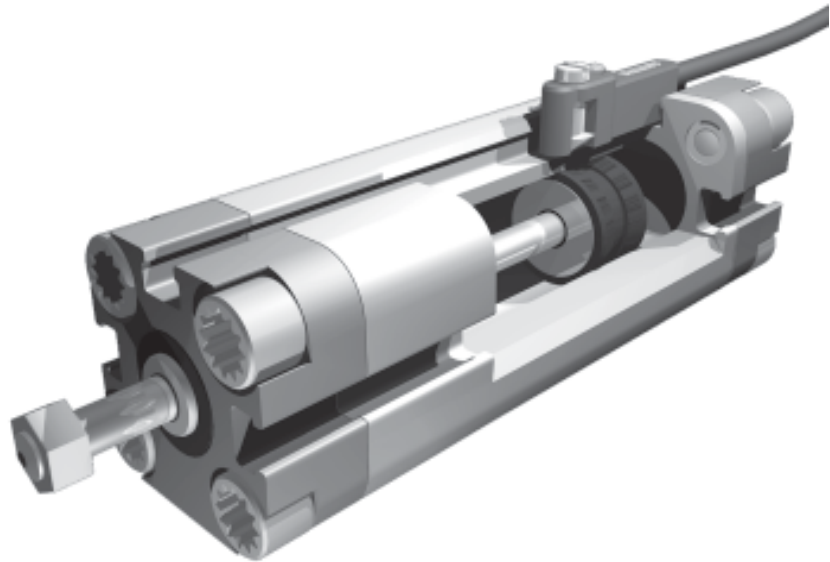
www.balluff.de

3.1

Connectors
selection guide
page 3.1.26 ...

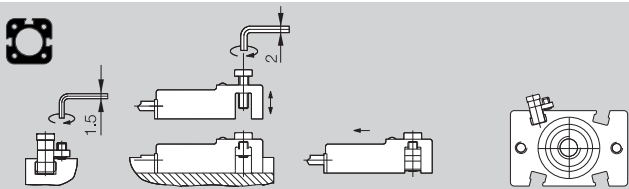
6

Connectors ...
page 6.2 ...



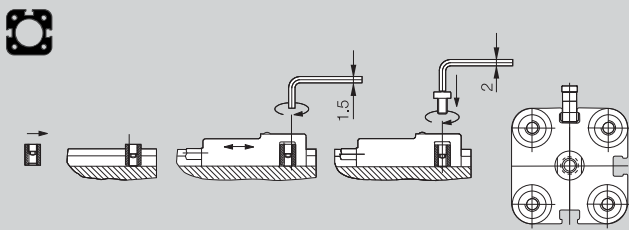
Installation

Included



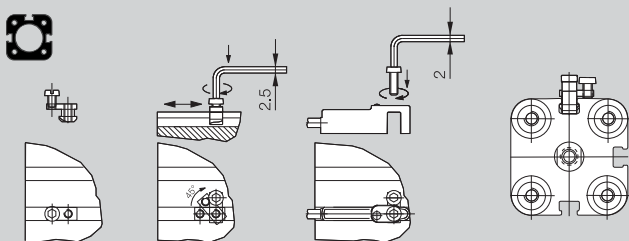
1. Insert mounting bracket into slot from head end
2. Insert sensor from above and tighten
3. Position sensor, tighten mounting bracket

Set screw DIN 916 M3×5-A2
Screw DIN 7984 M3×10-A2
Mounting bracket



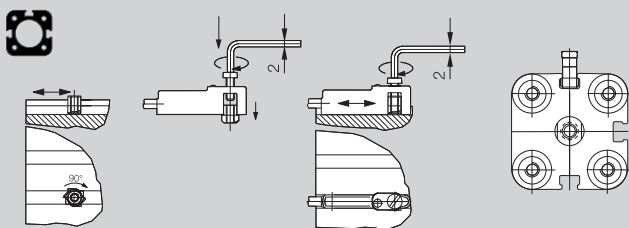
1. Insert mounting bracket into slot from head end
2. Insert sensor from above, position and tighten mounting bracket
3. Tighten down sensor with mounting bracket

Setscrew DIN 916 M3×4-A2
Screw ISO 1207 M3×6-A2
Mounting bracket
also:
Screw DIN 7984 M3×6-A2



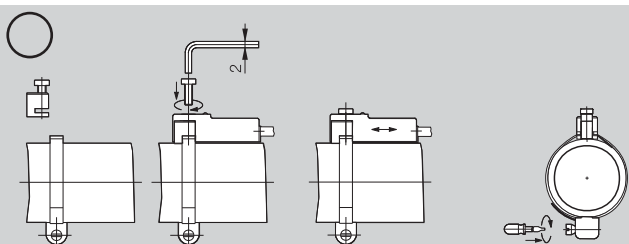
1. Insert mounting bracket into slot from above, rotate 90°
2. Insert sensor from above and tighten
3. Position sensor, tighten mounting bracket

Screw DIN 912 M3×4-A2
Screw DIN 7984 M3×8-A2
Mounting bracket
also:
Screw ISO 1207 M3×4-A2
Screw ISO 1207 M3×8-A2



1. Attach mounting bracket to sensor with 1 to 2 turns
2. Insert sensor and mounting bracket from above and tighten (mounting bracket rotates by 90°)

Screw DIN 7984-KL M3×10-A2
Mounting bracket
also:
Screw ISO 1207-KL M3×10-A2

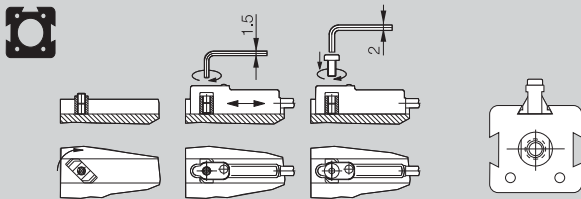


1. Place tube cuff on loosely
2. Attach sensor with mounting bracket to tube cuff
3. Position and tighten

Screw DIN 7984 M3×8-A2
Mounting bracket

Tube cuff size _ please order separately (see table at left)

Advantages	Ordering code	Advantages	Cylinder type	Mounting bracket
<p>Can be installed in the slot from above. Anytime! Even later! Fast! Saves time!</p>	BMF 305-HW-25		Trapezoidal slot 60°/90° e.g. Festo, Bosch, Numatics, Hoerbiger-Origa, Norgren-Martonair	
<p>Switchpoint adjusted in seconds! Turn screw one revolution, adjust position, tighten.</p>	BMF 305-HW-26		T-slot A T-slot B e.g. SMC	Location for T-slot A Location for T-slot B
<p>Switchpoint cannot be lost. Even if you replace the sensor the adjusted switchpoint is determined by the mounting bracket, not the sensor.</p>	BMF 305-HW-27		Trapezoidal guide e.g. Bosch	
	BMF 305-HW-32		C-slot e.g. Norgren	
	BMF 305-HW-64		e.g. Bosch	
	BMF 305-HW-21 and BMF 21-HW-8		for tie rod cylinders	
	BMF 305-HW-21 and BMF 21-HW-10		for tie rod cylinders (profile shape)	

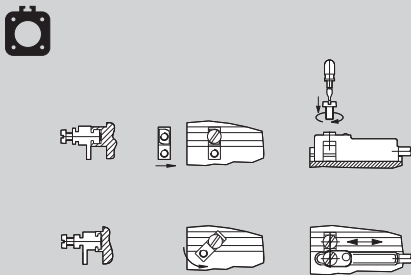


Installation

1. Insert mounting bracket from above and rotate 90°
2. Insert sensor, position, tighten mounting bracket
3. Tighten down sensor with mounting bracket

Included

Setscrew DIN 916 M3×4-A2
Screw DIN 7984 M3×6-A2
Mounting bracket

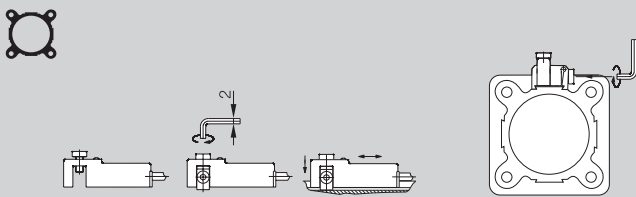


The mounting bracket can be used for two slot dimensions.

T-slot **A**: insert mounting bracket, insert sensor from above, position and tighten both screws.

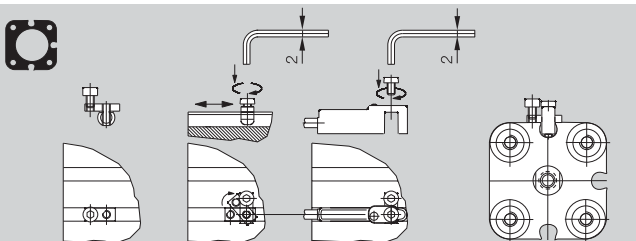
Cheese head screw ISO 1207 M3×5 A2
Cheese head screw ISO 1207 M3×14 A2
Mounting bracket

T-slot **B**: insert mounting bracket from above and rotate 90°. Insert sensor from above, position and tighten both screws.



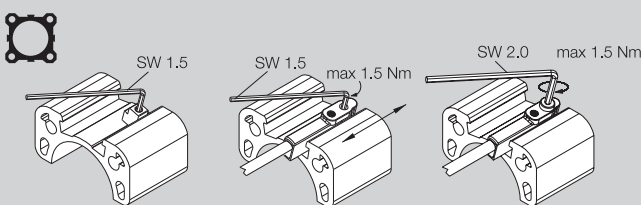
1. Insert mounting bracket from above
2. Insert sensor from above and tighten
3. Position sensor, tighten mounting bracket

Screw DIN 912 M3×4-A2
Screw DIN 7984 M3×10-A2
Mounting bracket



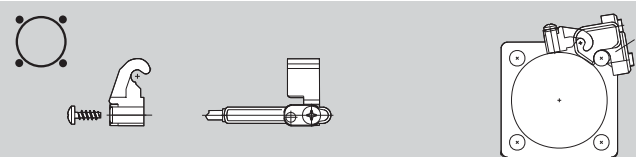
1. Insert mounting bracket from above and rotate 90°
2. Insert sensor, position, tighten mounting bracket
3. Tighten down sensor with mounting bracket

Screws DIN 7984 M3×5-A2
Mounting bracket



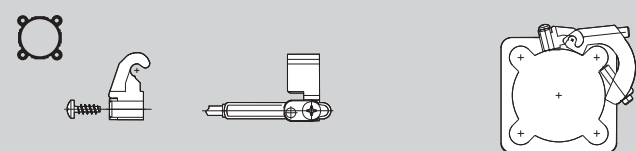
1. Mounting bracket in slot from above
2. Insert sensor from above, position and tighten mounting bracket
3. Tighten down sensor with mounting bracket

Cheese head screw DIN 7984 M3×5-A2,
Threaded stud DIN 914 M3×4-A2
Angled screwdriver 1.5 mm blade
Angled screwdriver 2.0 mm blade



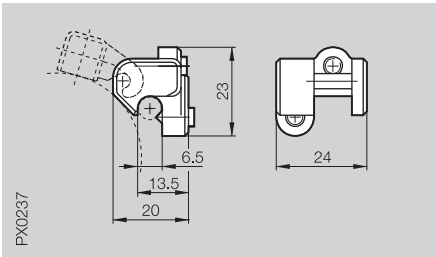
BMF 305-HW-21 used with BMF 21-HW-8 for attaching to a tie rod cylinder

PT-Screw KBL 30×8-A2
Mounting bracket
BMF 305-HW-21 (Mounting bracket BMF 21-HW-8 please order separately)



BMF 305-HW-21 used with BMF 21-HW-10 for attaching to a profile cylinder

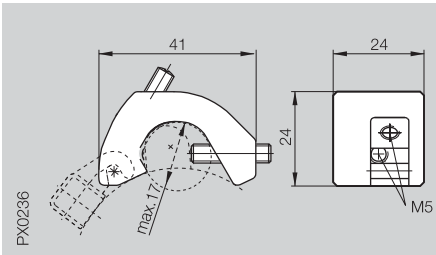
PT-Screw KBL 30×8-A2
Mounting bracket
BMF 305-HW-21 (Mounting bracket BMF 21-HW-10 please order separately)



BMF 21-HW-8

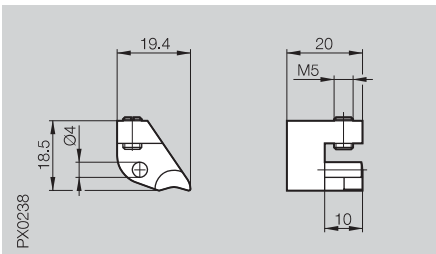
for pneumatic cylinders with tie rod;
piston diameter any
Tie rod diameter up to 6.5 mm

Pneumatic cylinders with DUO rail
(Festo), any piston diameter



BMF 21-HW-10/BMF 21-HW-10-E

for pneumatic cylinders with tie rod;
piston diameter any Tie rod diameter
to 17 mm for pneumatic cylinders
with integrated tie rod (Profile)
Any piston diameter
Profile width up to 17 mm
BMF 21-HW-10-E:
Stainless steel 1.4305



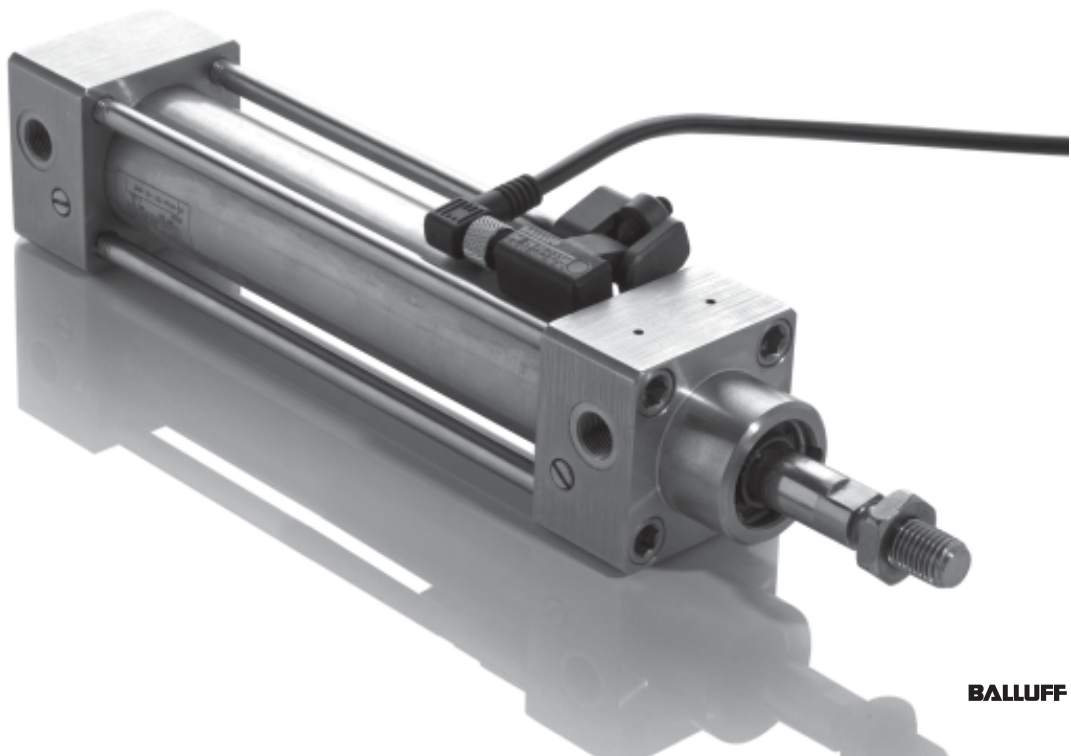
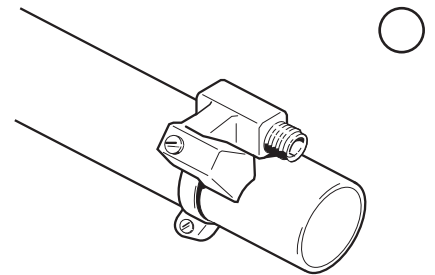
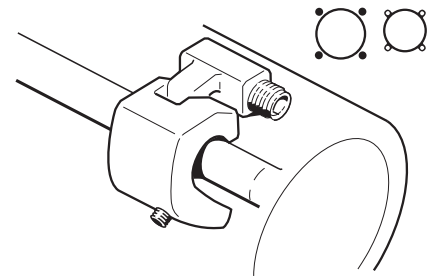
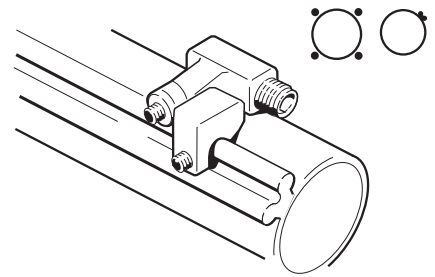
BMF 21-HW-11

for pneumatic cylinders without
tie rod/rail

Piston diameter 8...80 mm
Mounting bracket only usable with
tube cuffs.

Piston Ø	Tube cuff size
8, 10	1
12	1
16, 20	2
25	2
32	3
40	4
50	5
63	6
80	7

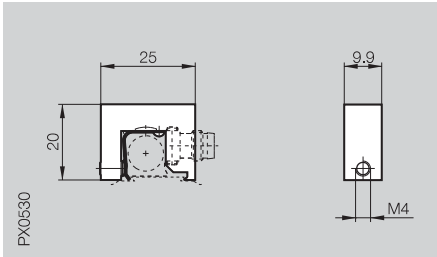
Tube cuff size _
please order separately



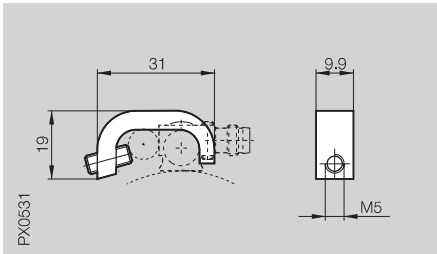
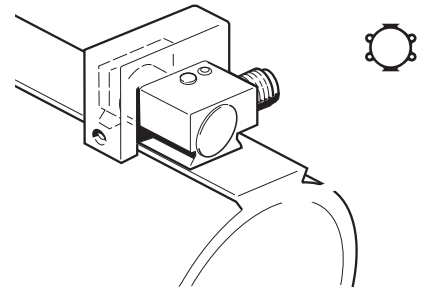
Sensors for Pneumatic Cylinders

Mounting brackets for BMF 32

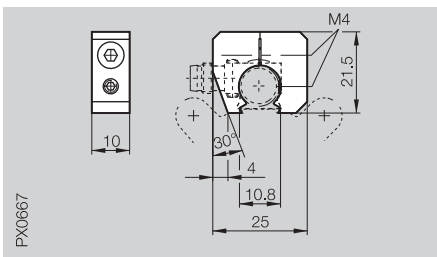
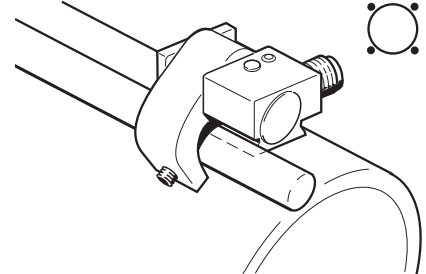
metal version



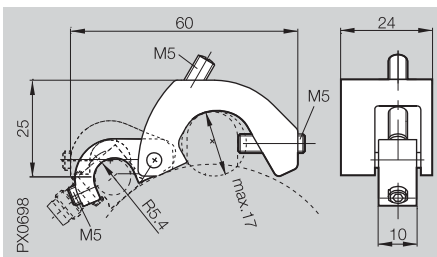
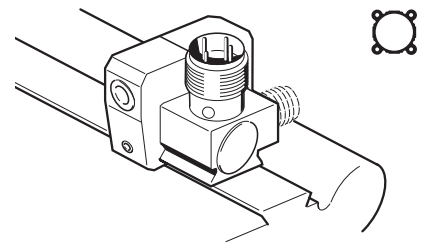
BMF 32-HW-12
for pneumatic cylinders with
trapezoidal rail (Rexroth-Mecman)
any piston diameter



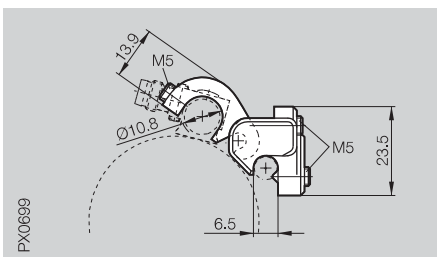
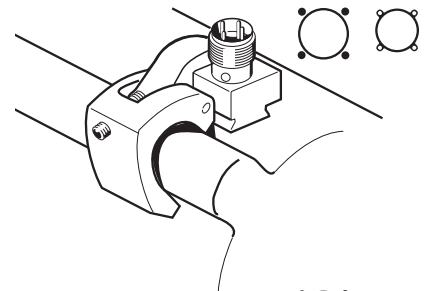
BMF 32-HW-13
for pneumatic cylinders with tie rod,
any piston diameter
tie rod diameter max. 11 mm



BMF 32-HW-14
for pneumatic cylinders with
trapezoidal rail (Bosch) Typ:
0 822 350/351/352/353/354/355
any piston diameter

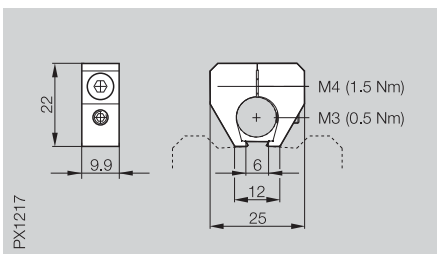
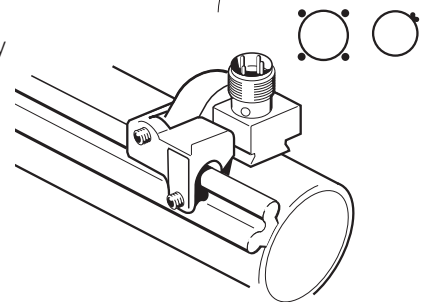


BMF 32-HW-15
for pneumatic cylinders with tie rod,
any piston diameter
tie rod diameter up to 17 mm
for pneumatic cylinders with tie rod
integrated in housing
any piston diameter
profile width up to 17 mm

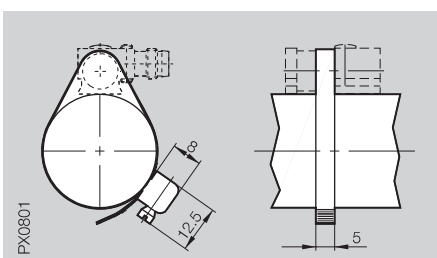
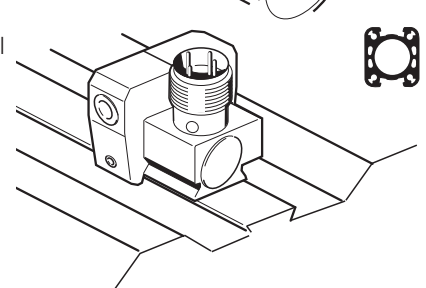


BMF 32-HW-16
for pneumatic cylinders with tie rod, any
piston diameter
tie rod diameter up to 6.5 mm

pneumatic cylinders with DUO rail
(Festo), any piston diameter



BMF 32-HW-18
for pneumatic cylinders with trapezoidal
rail Bosch Rexroth Series 2700



BMF tube cuff size 1...8
Stainless steel for pneumatic cylinders
without tie rod/rail Piston diameter 8...80 mm

Piston Ø	Tube cuff size
8, 10	1
12, 16, 20	2
25, 32	3
40	4
50	5
63	8
80	7

