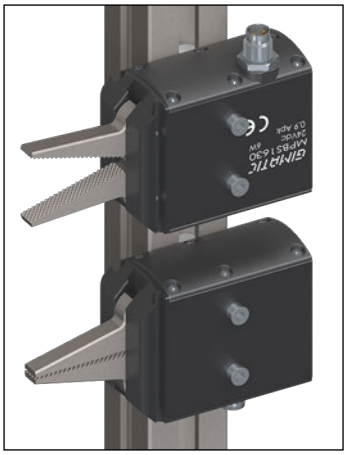
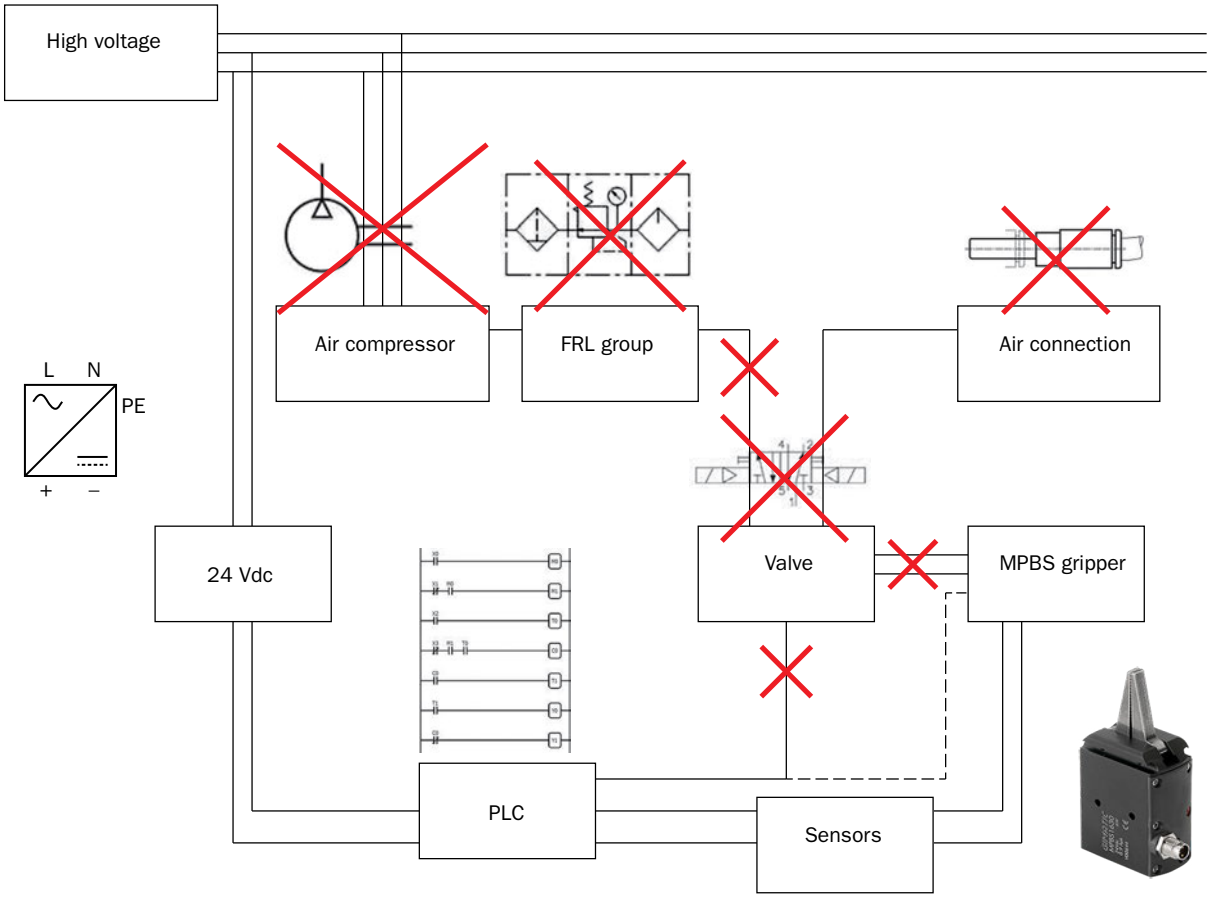
2-jaw angular self-centering electric sprue gripper

- Plug & play user friendly gripper.
- No electricity consumption when gripper is engaged.
- No programming required.
- Gripper retention guaranteed in event of blackout.
- Self Adapting jaws part.
- Long life Brushless motor (Brushless DC).
- Built-in motor driver.
- 24 Vdc Low Voltage Power Supply.
- M8x1, 3 poles standard connection.
- Controllable by PLC as a pneumatic valve.
- Exclusive self-centering system.
- Fiber-carbon gear reduction.
- 10 milion cycle maintenance-free.
- Jaws contained within gripper profile.
- Weight-dimensions-force best trade off.
- Rotary actuator fitting compatible.
- Optional magnetic sensors.

MPBS1630

MPBS1630S

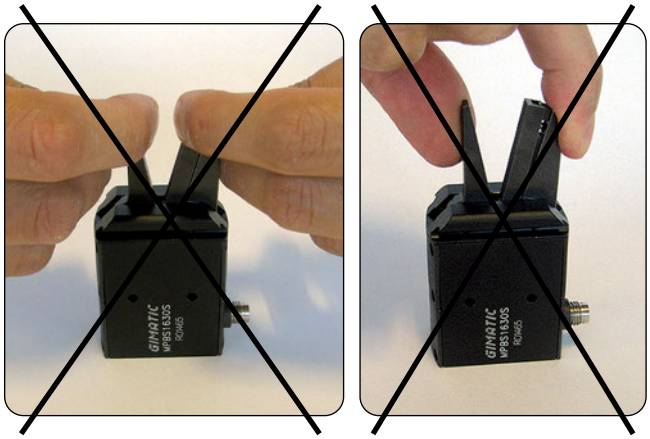


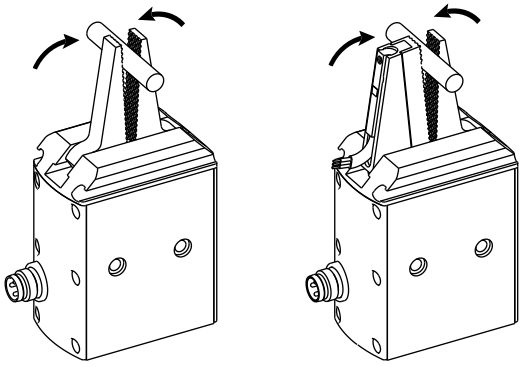


		MPBS1630	MPBS1630S
Price		$925.00	$965.00
Total gripping torque		70 Ncm	
Stroke		2x16° (±2°)	
Frequency at an ambient temperature of 86°F		1.2 Hz	
Jaw closing time		0.06 s	
Working gripper time		0.18 s	
Duty cycle at an ambient temperature of 86°F		41%	
Power supply		24 Vdc ±10%	
Peak current		0.9 Apk	
Nominal current		0.3 Arms	
Brushless motor power		6 W	
Connection		M8 - 3 poles	
Open/closed input signal		PNP open collector	
Repetition accuracy		0.04°	
Operating temperature		5° ÷ 60°C	
Environmental Degree		IP54	
Noise level		< 70 dB	
Mass (motor included)		145 g	150 g
Maximum inertial load		-	
IPA Clean Room Certification		-	
Reference standards		EN 61000-6-2 + EC + IS1; EN 61000-6-3 + A1	
Barycentric moment of inertia	Jxx	0.53 kgcm^2	0.75 kgcm^2
Barycentric moment of inertia	Jyy	0.63 kgcm^2	0.86 kgcm^2
Barycentric moment of inertia	Jzz	0.2 kgcm^2	0.22 kgcm^2
Technology and options		Page 914 - 915	

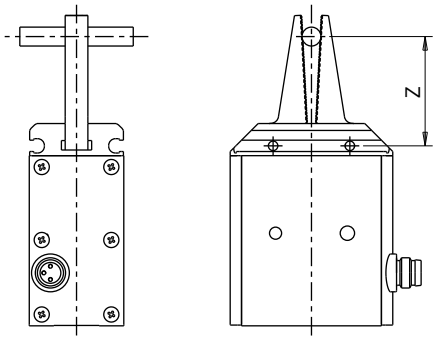
Gripping force

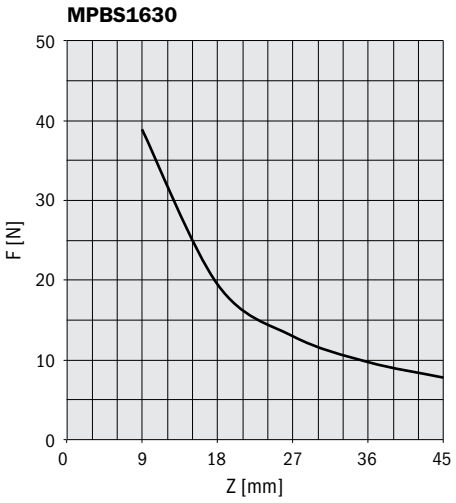
The piece will be gripped in any position within the jaw stroke. After the piece is gripped, the spring force will hold it in position (motor OFF and ZERO consumption) even in the case of power black-out.
Furthermore, as the gripper mechanism is irreversible, even without power supply, do not attempt to open or close the gripper manually.





The graphic show the gripping force on each jaw, as a function of the gripping tool length Z.





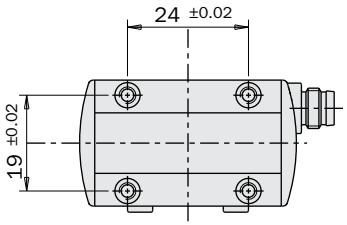
Dimensions (mm)

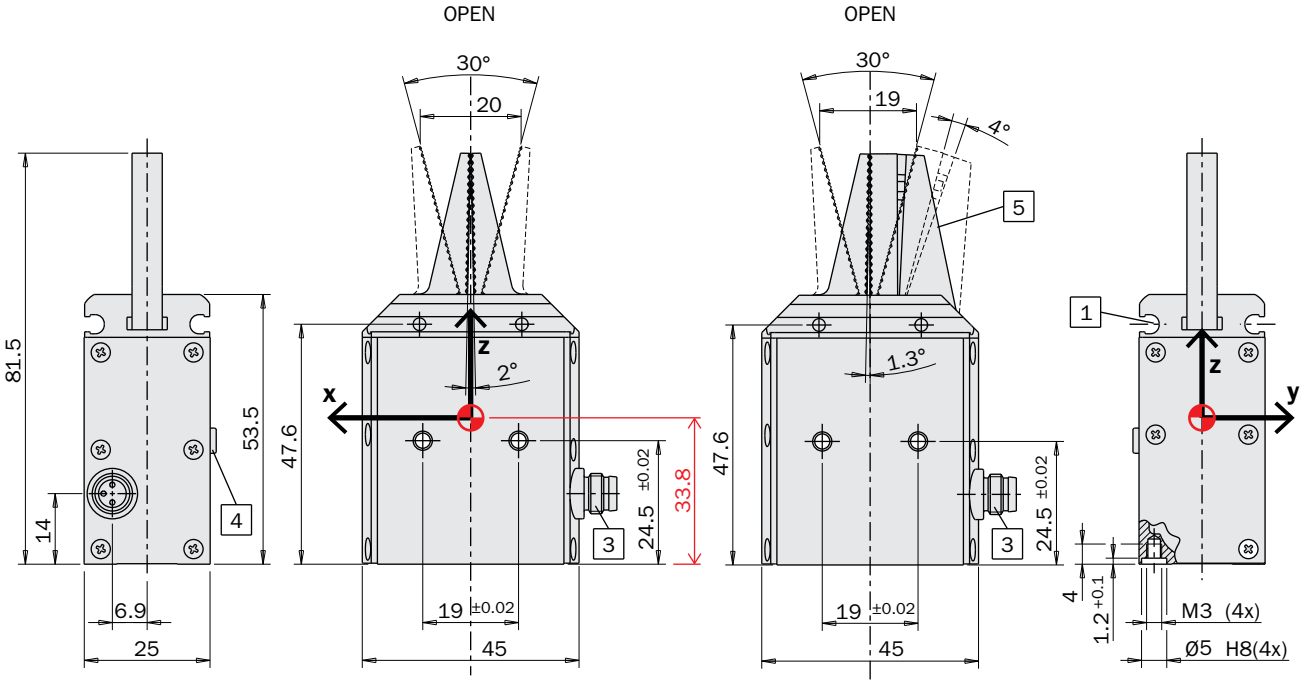
1 *Magnetic sensor slot*

2 *Through hole for gripper fastening*

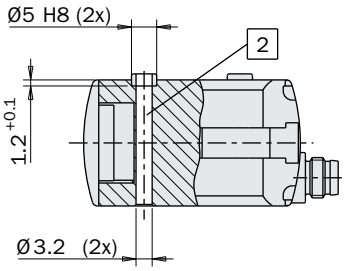
3 *Electrical connection*

4 *Centering sleeves*

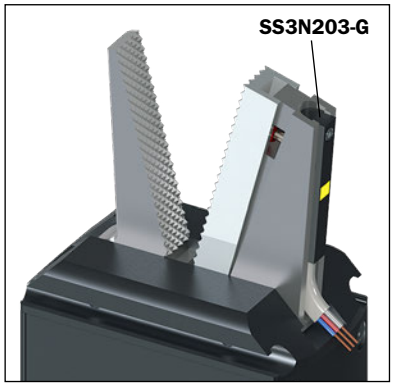




MPBS1630 **MPBS1630S**



5

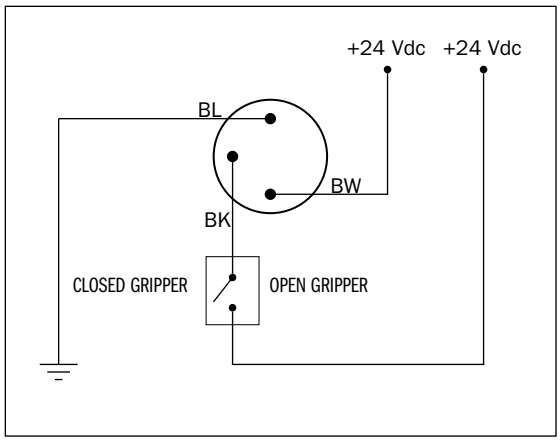


FIRST ANGLE PROJECTION

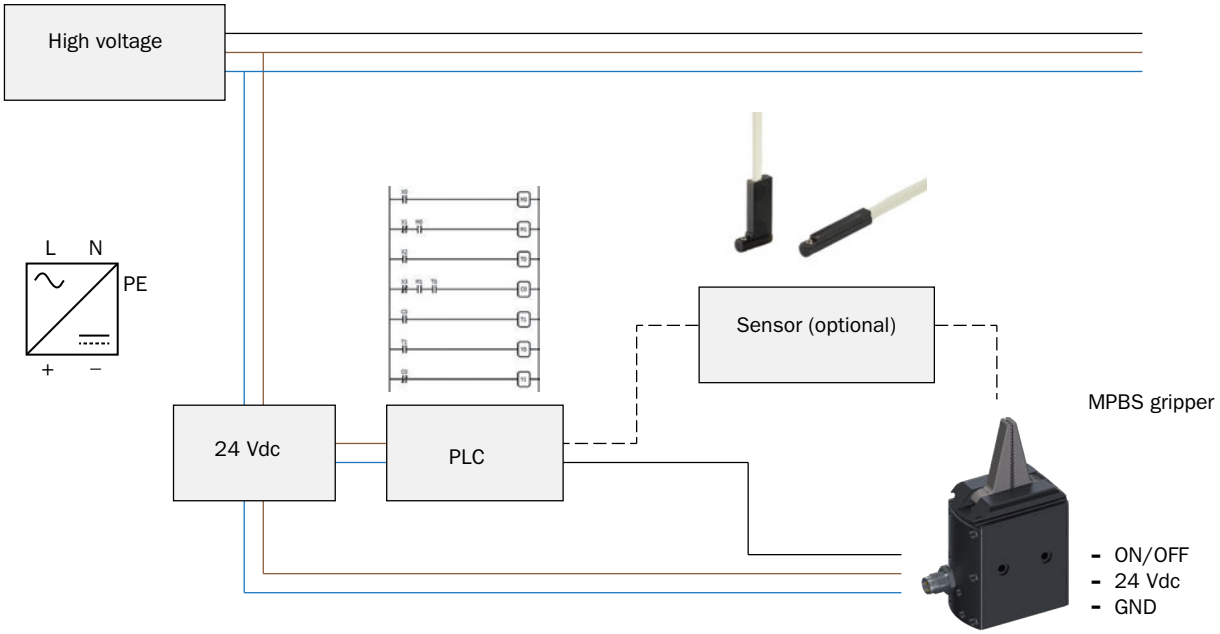
Electrical connection

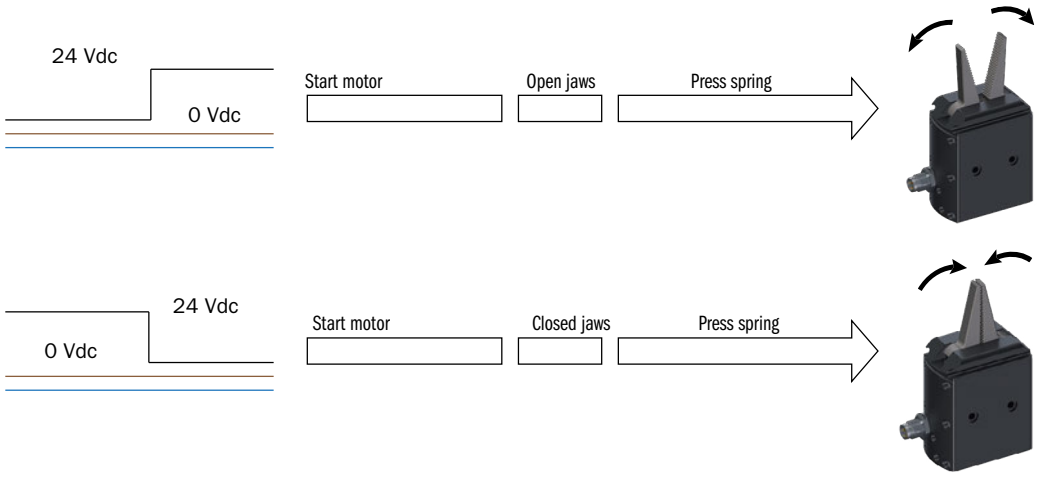
It is possible to provide the power supply at 24Vdc and the and the closing/opening signal (ON/OFF) by the M8 standard connector with 3 poles.

No further electronics is necessary to drive the gripper.



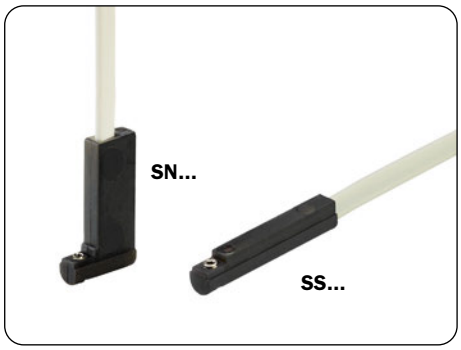
Optional M8x1 standard female connector.
Gimatic code: CFGM800325P / CFGM890325P.





Sensors

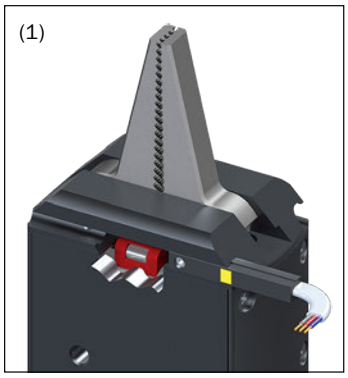
The operating position can be checked by one or more magnetic sensors (optional), that detect the position by the magnets on the jaws inside (1).
The S version is equipped with a magnetic sensor slot on the jaw, for extra sprue gripping reliability (2).
For details, see the "Accessories" section.

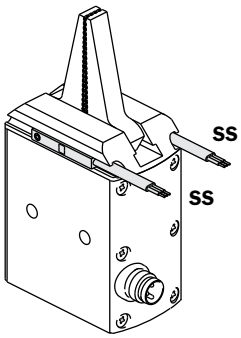


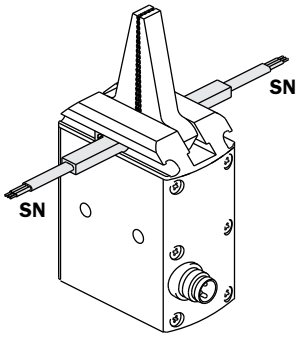
SN4N225G	PNP	2.5m cable	$27.20
SN4M225G	NPN	2.5m cable	$27.20
SN3N203G	PNP	M8 connector	$31.16
SN3M203G	NPN	M8 connector	$31.16
SS4N225G	PNP	2.5m cable	$27.20
SS4M225G	NPN	2.5m cable	$27.20
SS3N203G	PNP	M8 connector	$31.16
SS3M203G	NPN	M8 connector	$31.16

They are all provided with a 3-wire flat cable and a LED.

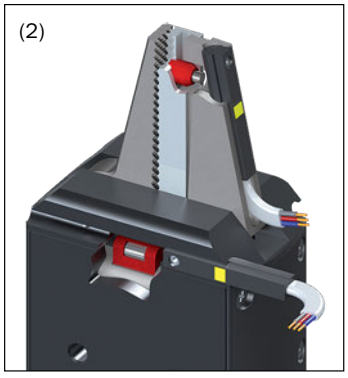
MPBS1630
MPBS1630S

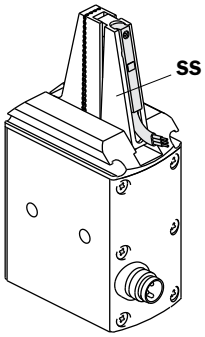




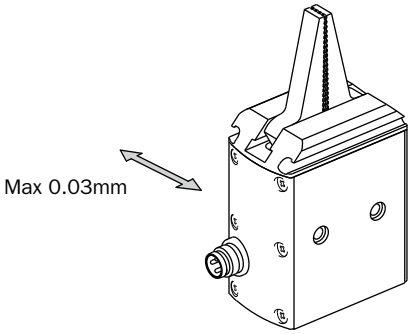


MPBS1630S





The figure below also shows the maximum backlash of the jaws.



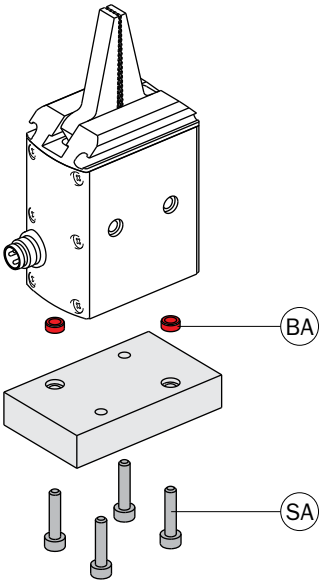
Gripper fastening

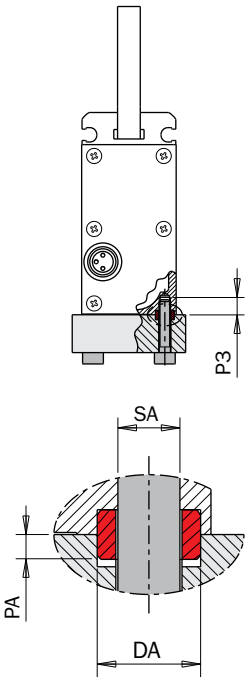
The gripper can be fastened to a static or moving part.
When on a moving part, you must pay attention to the inertial force to which the gripper and its load are subjected.

- To fasten gripper to base, use four screws (SA) through the mounting plate, screwed in the gripper.
- To fasten the gripper side, use two screws (SB) in the through holes (D3).

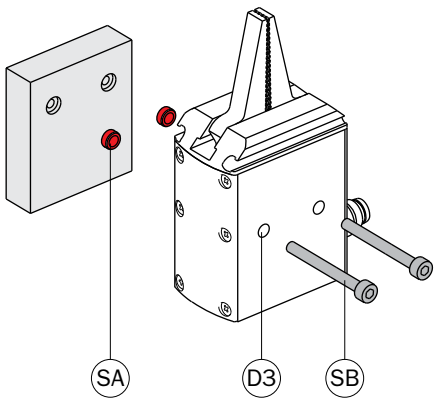
In every case, put the two centering sleeves (BA), which are supplied in the package. Check the dimensions (DA and PA) in the table for their housings in the mounting plate.

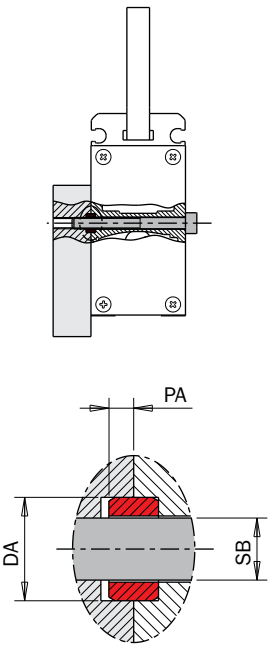
	MPBS1630 MPBS1630S
D3	Ø3.2
DA	Ø5 h7
P3	4
PA	1.2
SA	M3
SB	M3





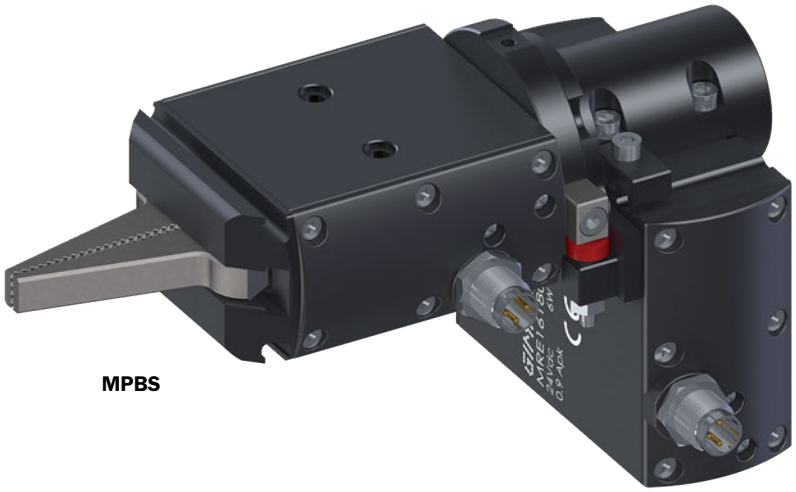
2 centering sleeves (BA) for the housing are supplied in the packaging.





Serie compatibility

MPBS grippers series is perfectly compatible with MRE rotary series actuators without any special plate.



MPBS MRE

Cautions

Never let the gripper come into contact with corrosive substances, soldering splashes or abrasive powders as they may damage the gripper.
Never let personnel or objects stand within the operating range of the gripper.
Never operate the gripper if the machine on which it is fitted does not comply with safety laws and standards of your country.