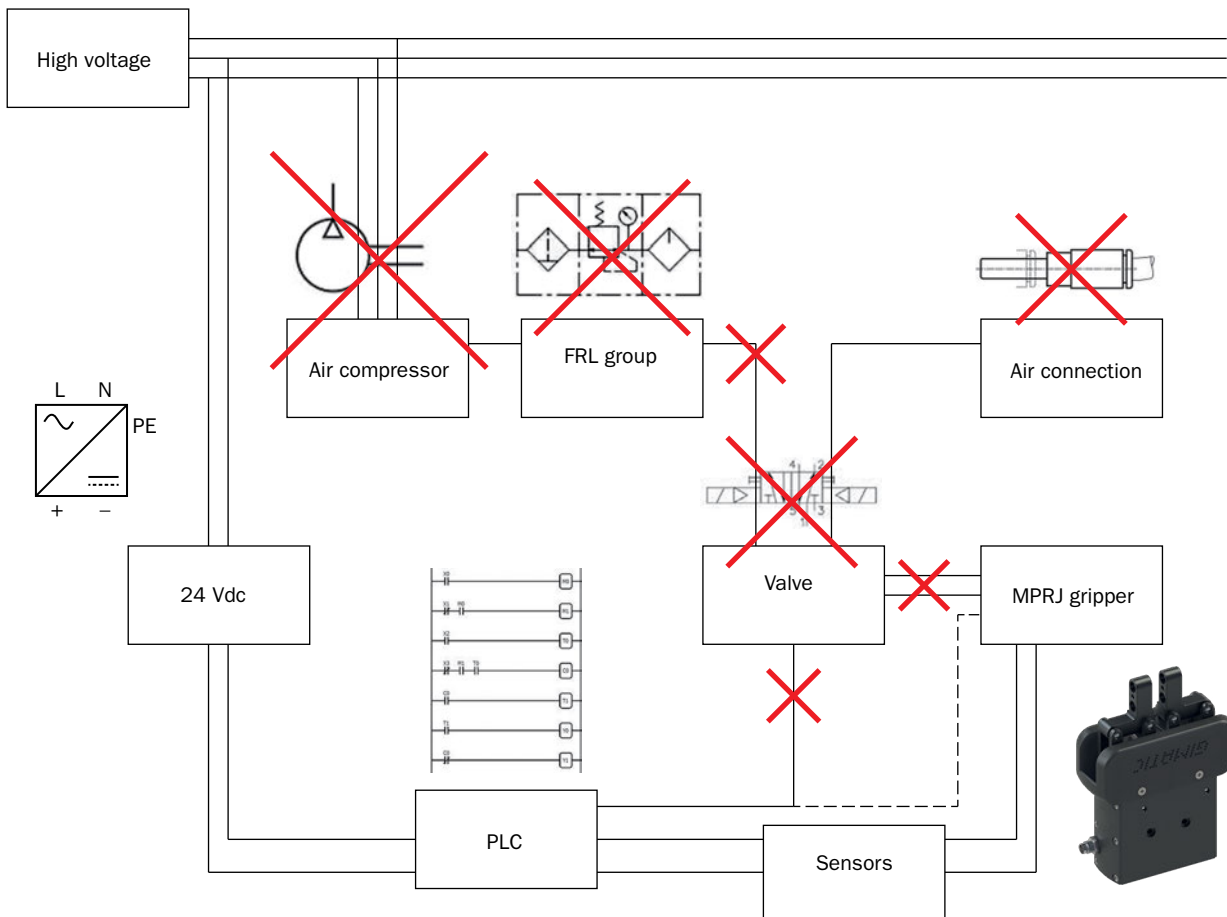


2-jaw parallelogram electric gripper

- 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 million cycle maintenance-free.
- Well protected against dusty environments.
- Weight-dimensions-force best trade off.
- Rotary actuator fitting compatible.
- Optional inductive sensors.



MPRJ2553





	MPRJ2553	
Price	\$2,033.00	
Total gripping force	24 N	
Stroke	2 x 26.5 mm (±2°)	
Frequency at an ambient temperature of 30°C	1.6 Hz	
Jaw closing time	0.15 s	
Working gripper time	0.24 s	
Duty cycle at an ambient temperature of 30°C	76%	
Power supply	24 Vdc ±10%	
Peak current	1.2 Apk	
Nominal current	0.4 Arms	
Brushless motor power	11 W	
Connection	M8 - 3 poles	
Open/closed input signal	PNP open collector	
Repetition accuracy	0.02 mm	
Operating temperature	41-140°F	
Environmental Degree	IP54	
Noise level	< 70 dB	
Mass (motor included)	480 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	5.32 kgcm ²
Barycentric moment of inertia	Jyy	6.8 kgcm ²
Barycentric moment of inertia	Jzz	2.75 kgcm ²
Technology and options	Page 914 - 915	

Gripping force

This electric gripper can be used for either external or internal gripping applications.

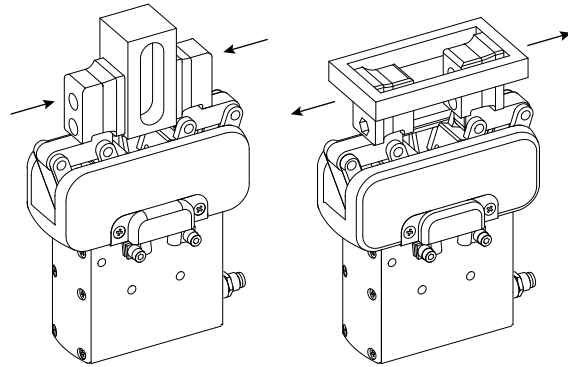
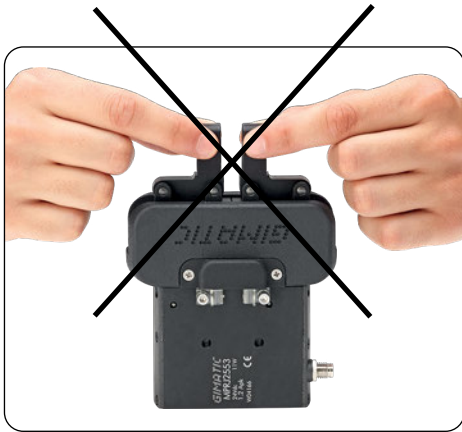
The part will be gripped in any position within the jaw stroke.

After the part is gripped, the spring force will hold the part (motor OFF and ZERO consumption).

Even in case of power black-out.

Furthermore the gripper mechanism is irreversible, even without power supply.

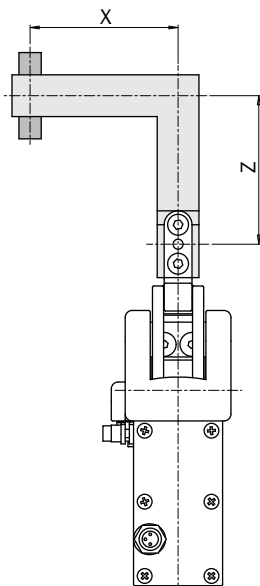
So do not attempt to open or close the gripper manually.



Gripping tools

The gripping force is not affected by the length and the shape of the gripping tools.

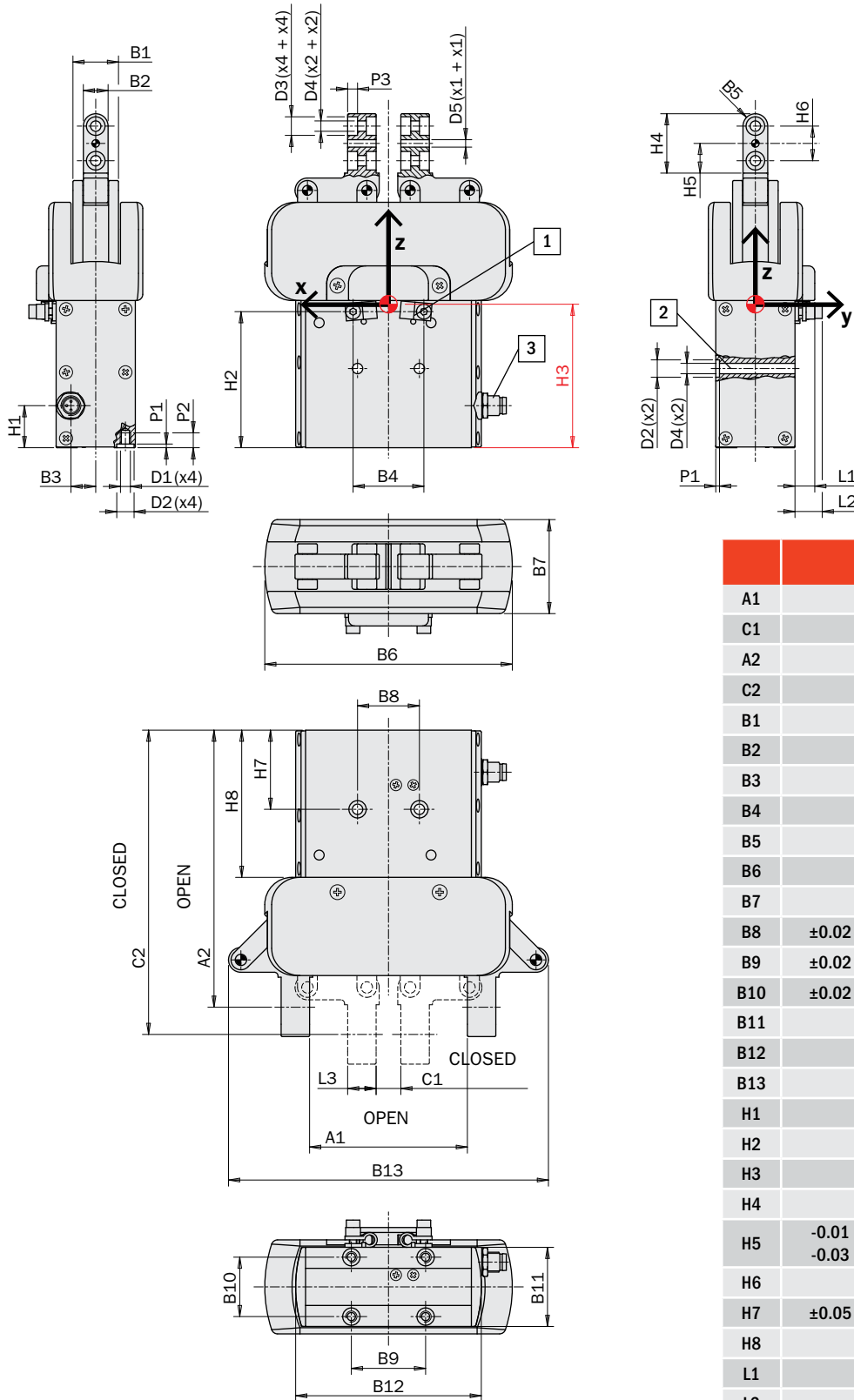
However they should not exceed the maximum values in the table below regarding the dimensions Z and X and regarding the mass m of one finger.



	MPRJ2553
Z	60 mm
X	60 mm
m	200 g

Dimensions (mm)

FIRST ANGLE PROJECTION



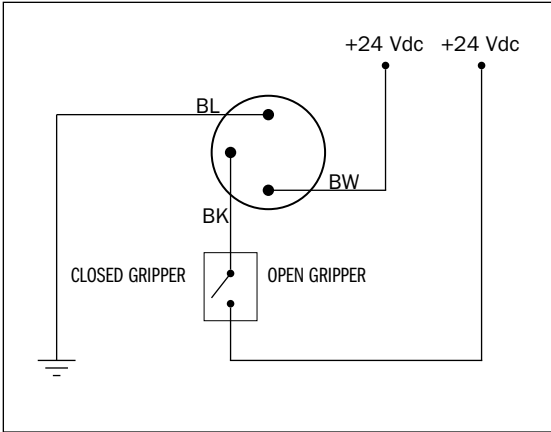
- 1 Inductive sensor bracket
- 2 Through hole for gripper fastening
- 3 Electrical connection

		MPRJ2553
A1		63
C1		10
A2		112
C2		123
B1		18.4
B2		10
B3		10
B4		28.6
B5		R5
B6		100
B7		38
B8	±0.02	25
B9	±0.02	30
B10	±0.02	24
B11		32
B12		75
B13		130
H1		17
H2		55
H3		58
H4		24
H5	-0.01 -0.03	12
H6		14
H7	±0.05	32
H8		59.5
L1		8
L2		11
L3		11.5
D1		M4
D2		Ø7 H8
D3		Ø7.5
D4		Ø4.2
D5		Ø3 H8
P1	+0.1	1.5
P2		6
P3		4

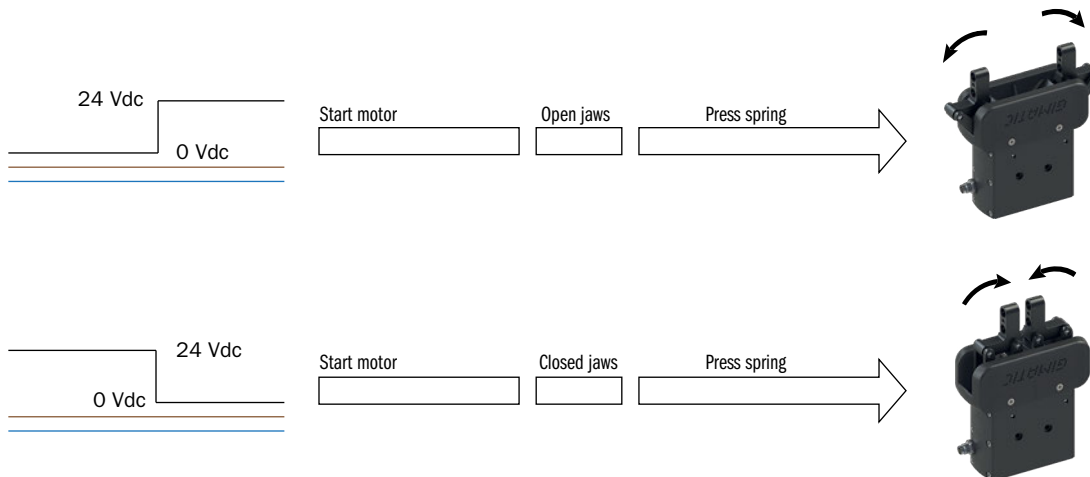
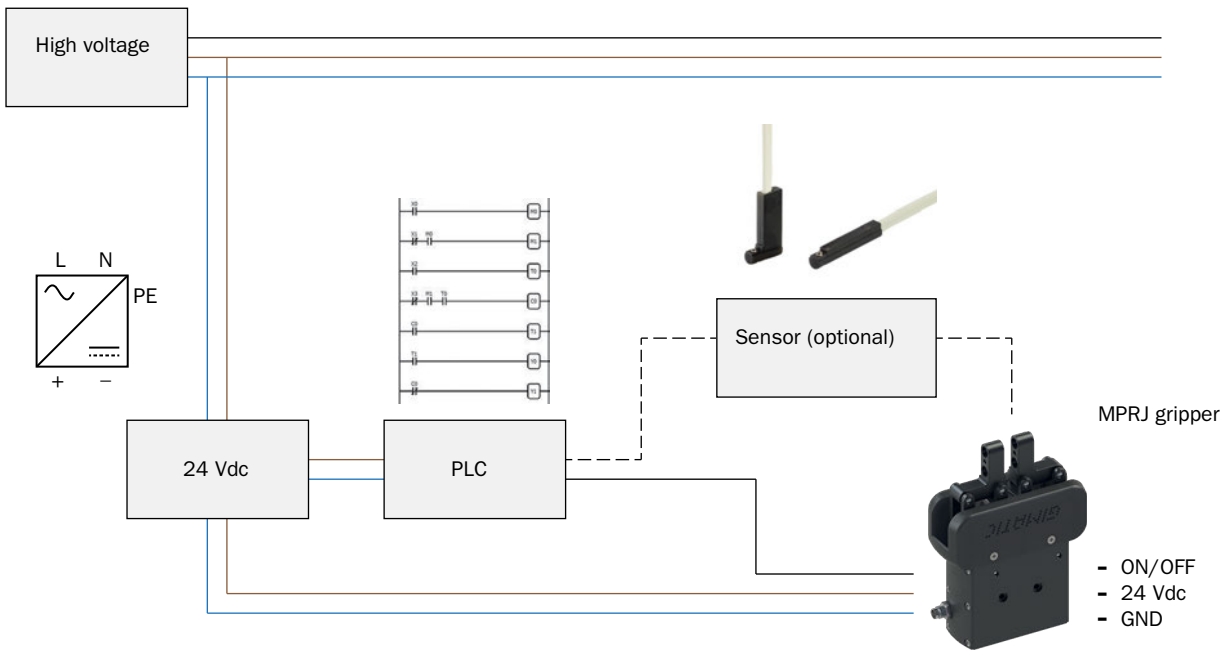
Electrical connection

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

No further electronics is necessary to drive the gripper.

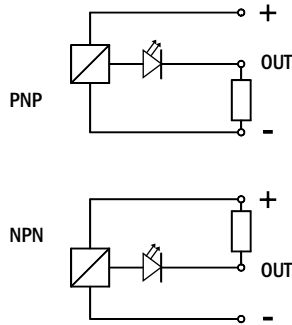


Optional M8x1 standard female connector.
Gimatic code: CFGM800325P / CFGM890325P.



Inductive sensors (optional)

The operating position is detected by Ø4mm inductive sensors (optional) fixed with brackets included in the package. The switch-on point of the sensors can be changed by suitably adjusting the position of the relevant nut. For details, see the "Accessories" section.

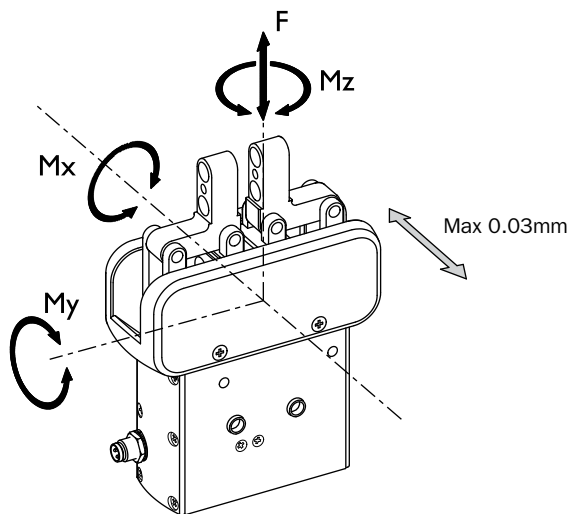


GSG-IS-NPN	NPN	\$58.50	2.5m Cable
GSG-IS-PNP	PNP		

Safety loads and backlashes

Check the table for the maximum permitted loads. Excessive forces or torques can damage the gripper, cause operation problems and endanger the safety of the operator. F s, Mx s, My s, Mz s, are the maximum permitted loads under static conditions, that is with motionless jaws. The picture below shows also the jaw maximum backlash.

	MPRJ2553
F s	80 N
Mx s	2.7 Nm
My s	1.3 Nm
Mz s	1.3 Nm



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.

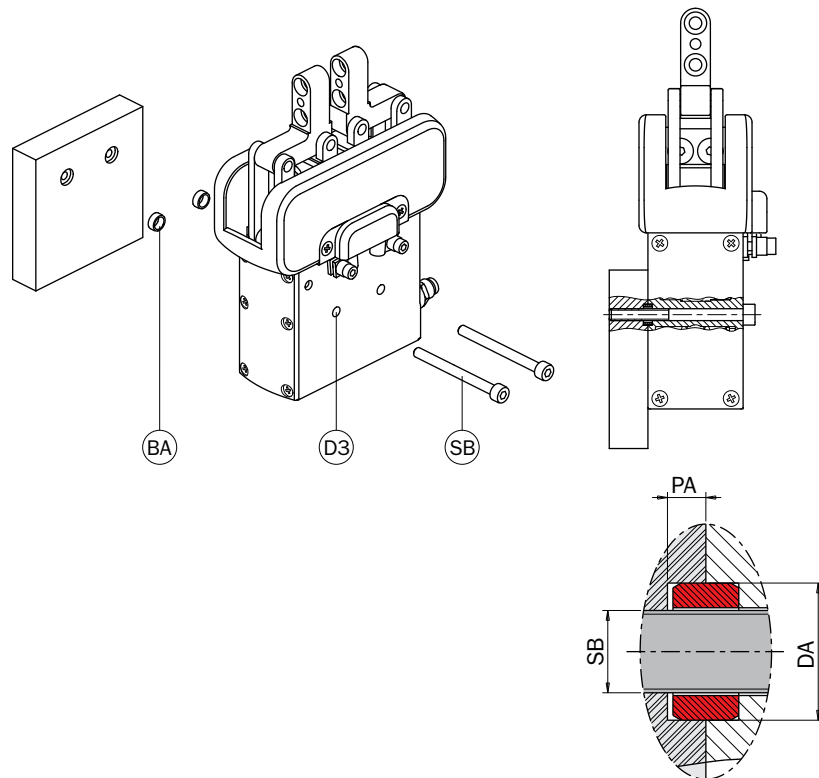
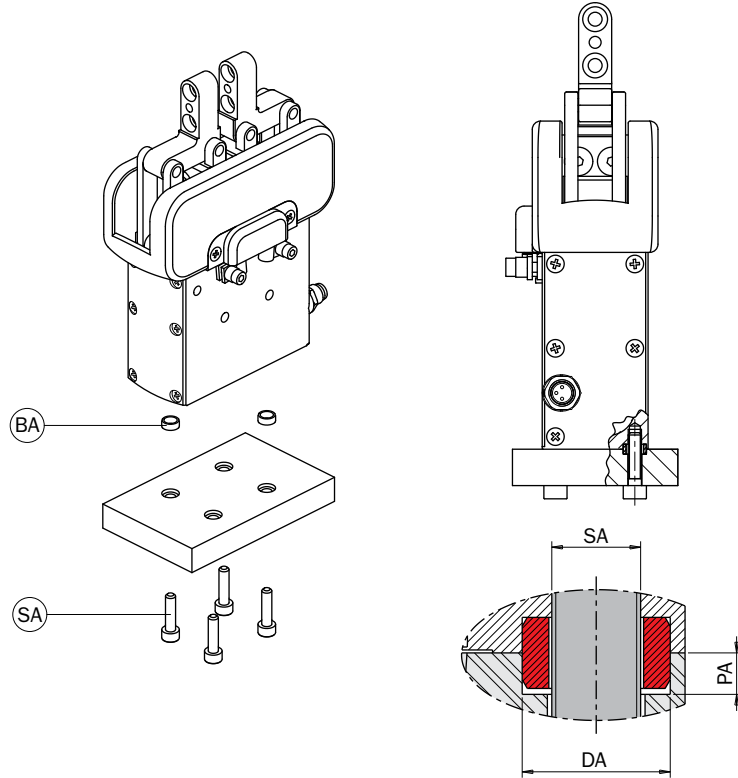
- To fasten gripper to base, use four screws (SA) through the mounting plate, screwed in the gripper.
- To fasten the gripper side, use two screws (SB) in the through holes (D3).

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.

MPRJ2553	
B9	32
D3	Ø4.2
DA	Ø7 h7
P3	6
PA	1.5
SA	M4
SB	M4

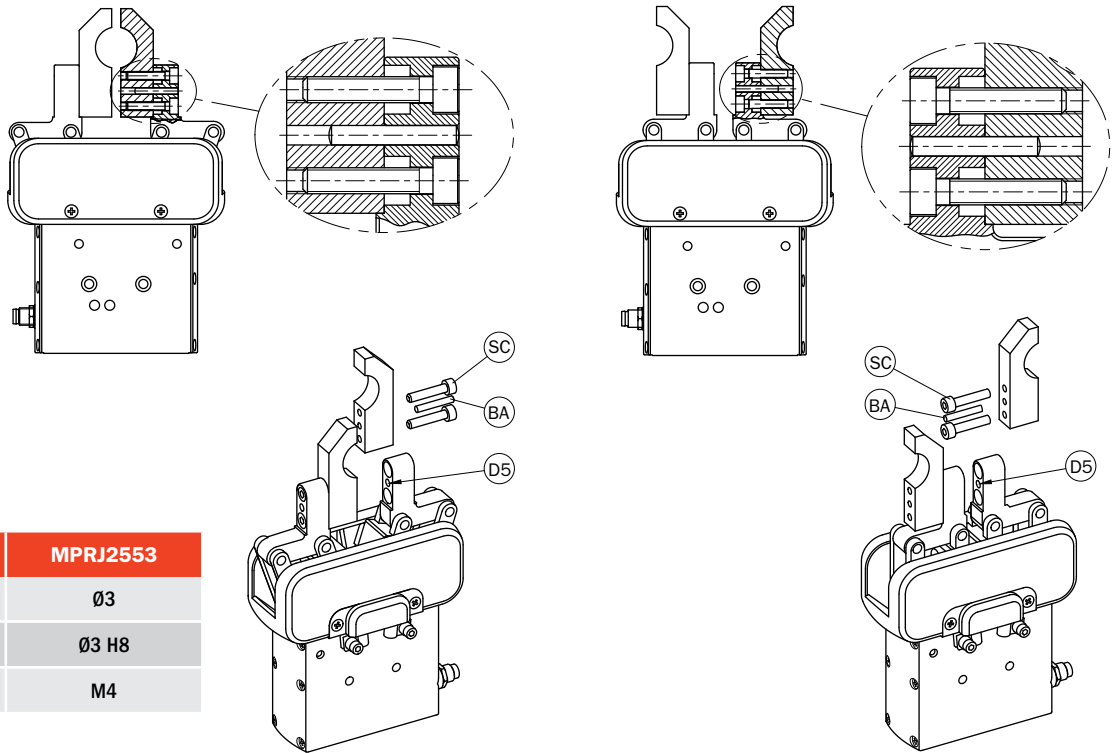


4 centering rings (BA) for the gripping tools and 2 centering sleeves (BA) for the housing are supplied in the packaging.



Gripping tool fastening

The gripping tools should be as short and light as possible. Fasten them with two screws (SC) and one centering pin (BA) in the calibrated hole (D5) of the jaws.



MPRJ2553	
BA	Ø3
D5	Ø3 H8
SC	M4

Serie compatibility

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

