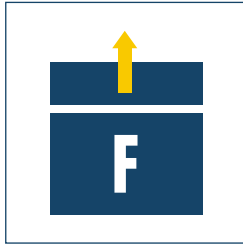
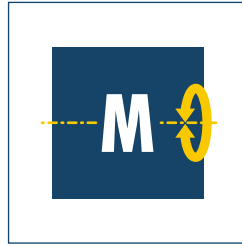




Sizes
061 .. 221



Triggering force F_z
1713 N .. 13800 N



Triggering torque M_x
59 Nm .. 1300 Nm

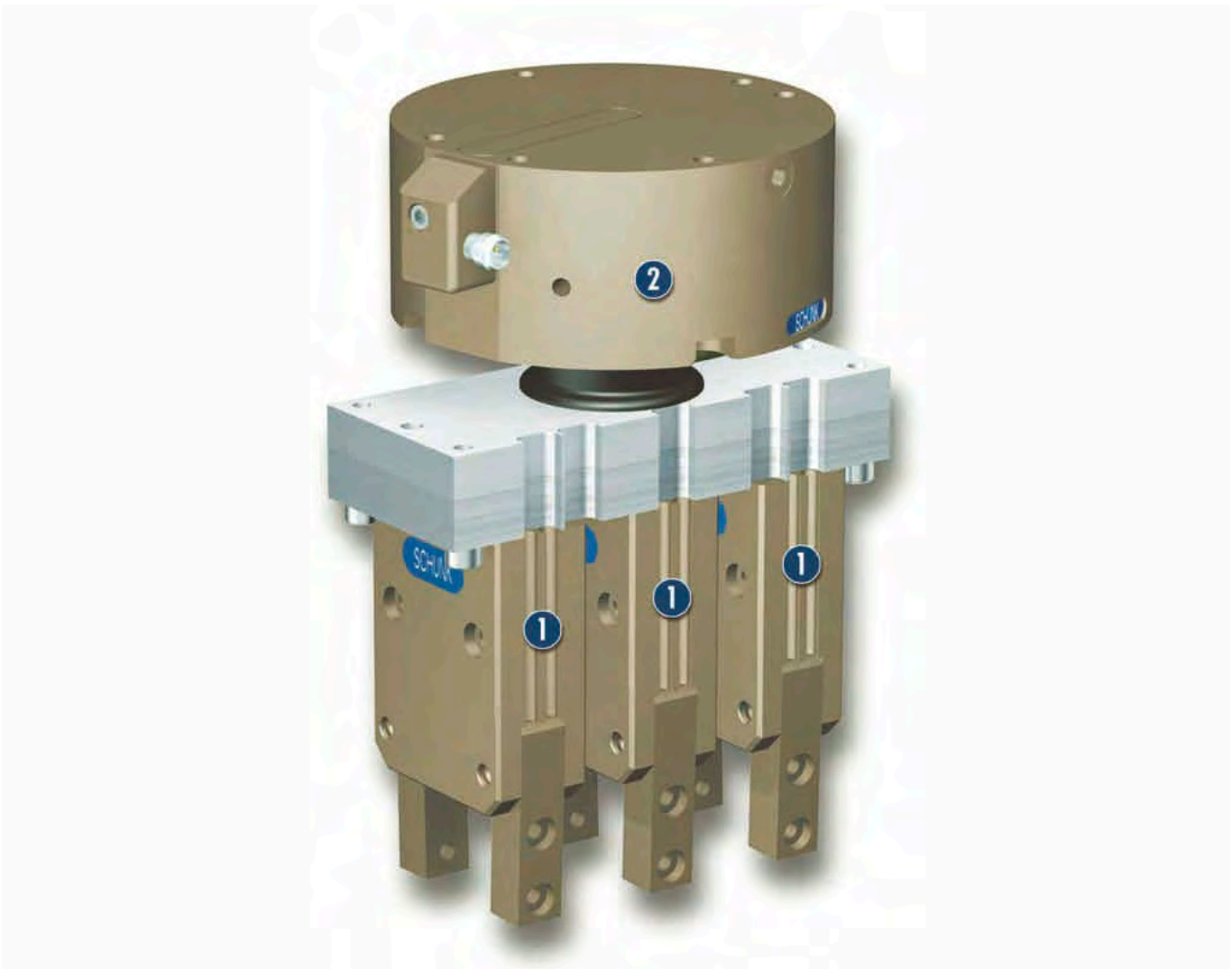


Triggering torque M_y
59 Nm .. 1300 Nm



Triggering torque M_z
61 Nm .. 960 Nm

Application example



Triple transfer unit for repacking small cardboard boxes

1 SWG 50 2-Finger Angular Gripper

2 OPR-101 Collision and Overload Protection

Collision and Overload Protection

Collision and overload protection with automatic reset for protecting robots and handling units against damage resulting from collisions or overload conditions

Area of application

Standard solution for all robot applications whereby the robot, the tool or the workpiece are to be protected in the event of a collision

Your advantages and benefits

Automatic reset

for faster production restart after a collision

Triggering force and torque can be adjusted via the operating pressure

for optimum protection of your components

Integrated monitoring

for signal transmission in the event of a collision, whereby the robot can be stopped

Various ISO adapter plates as an option

for easy attachment to most robots without production expense



General information on the series

Working principle

Integrated cylinder piston

Actuation

Pneumatic, with filtered compressed air (10 µm): dry or lubricated

Maintenance

Maintenance-free

Ambient temperature

From 5 °C to 60 °C

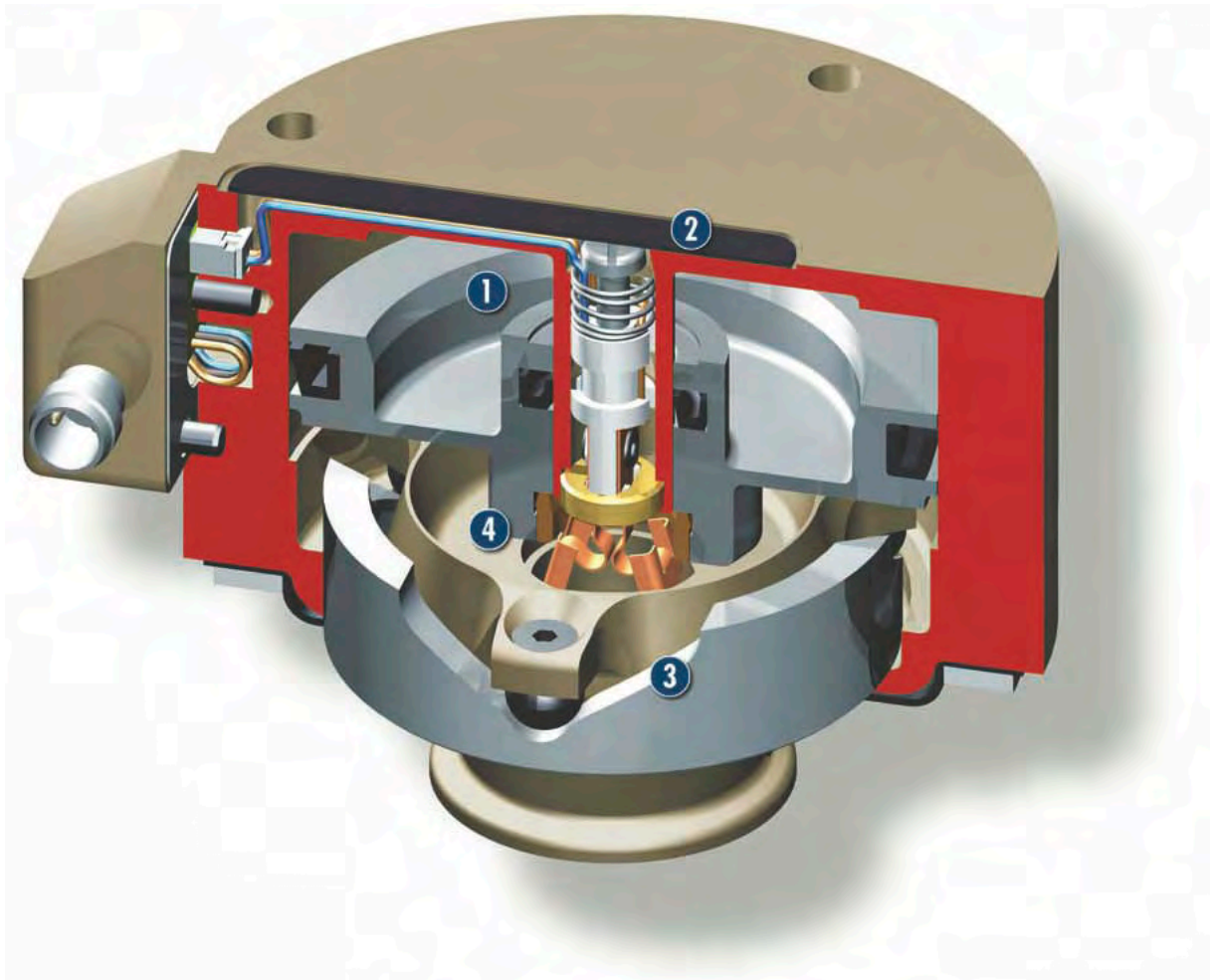
Scope of delivery

Coupling with 5 m cable, operating manual, maintenance instructions, manufacturer's declaration

Warranty

24 months

Sectional diagram



- 1 Drive**
pneumatic for easy adjustment of the triggering force
- 2 Adjustment Screw**
for adjusting the switching point
- 3 Bearing Point**
to absorb strong forces and large moments
- 4 Monitoring**
mechanical and robust

Function description

In the event of a collision, the tool plate deflects while simultaneously actuating the system's emergency stop mechanism. The OPR automatically returns to zero position when the gripper moves away from the collision object. Production can continue immediately as manual resetting is not necessary.

Accessories

Accessories from SCHUNK – the suitable supplement for maximum functionality, reliability and performance of all automation modules.

Adapter plates



Fittings



Cables



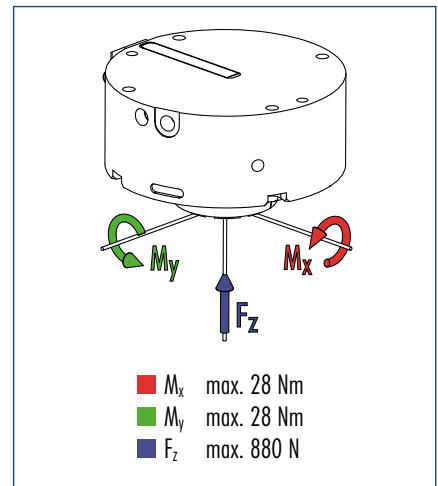
① For the exact size of the accessories, the availability for this size and the designation and ID, please refer to the additional views at the end of the size in question. You can find more detailed information on our accessory range in the “Accessories” catalog section.

General information on the series

Extreme ambient conditions

Please note that use in extreme ambient conditions (e.g. in the coolant zone, in the presence of abrasive dust) can significantly reduce the tool life span of these units and we cannot accept any liability for this reduction. However, in many cases we have a solution at hand. Please ask for details.

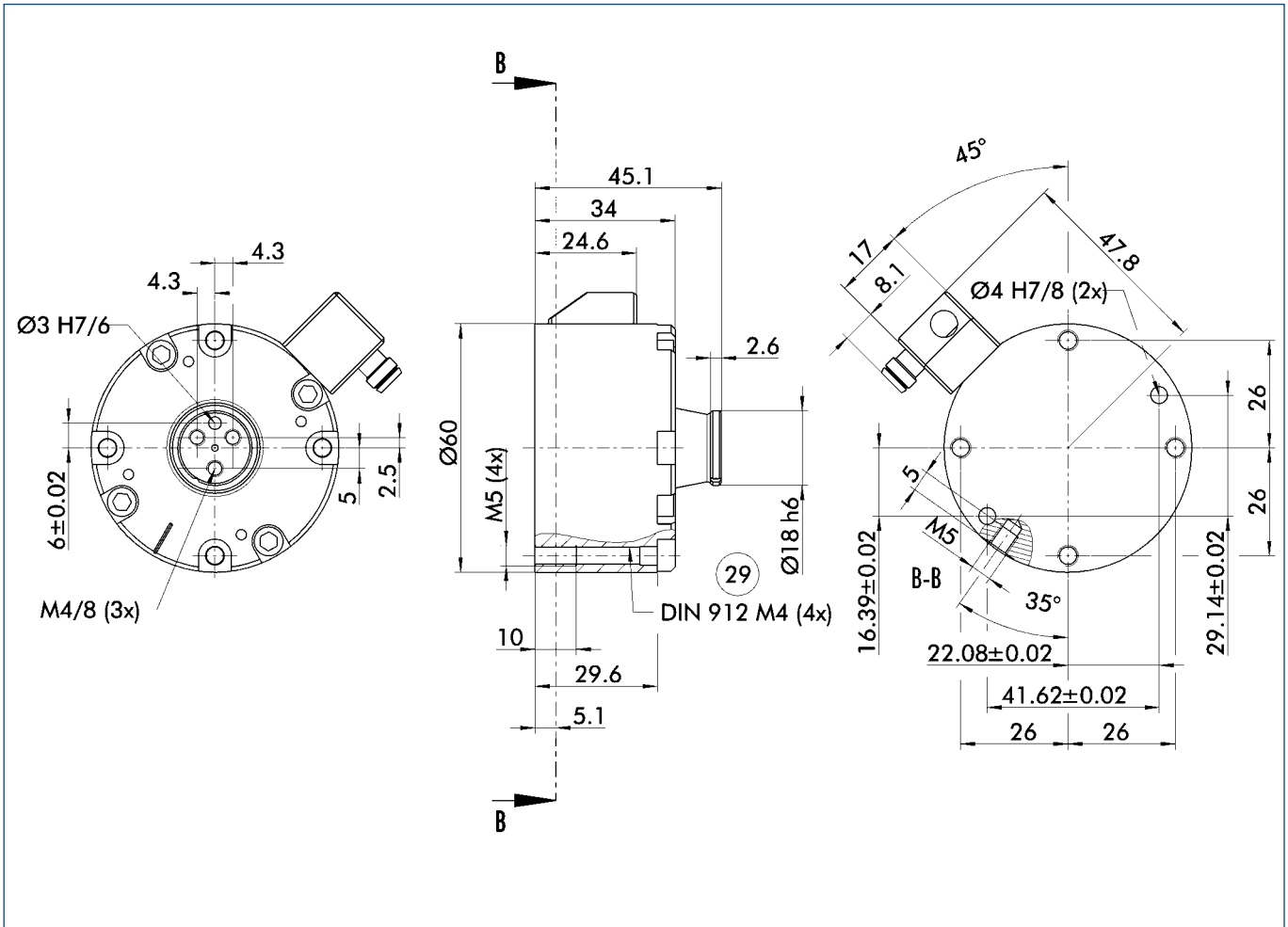
Forces and moments



Technical data

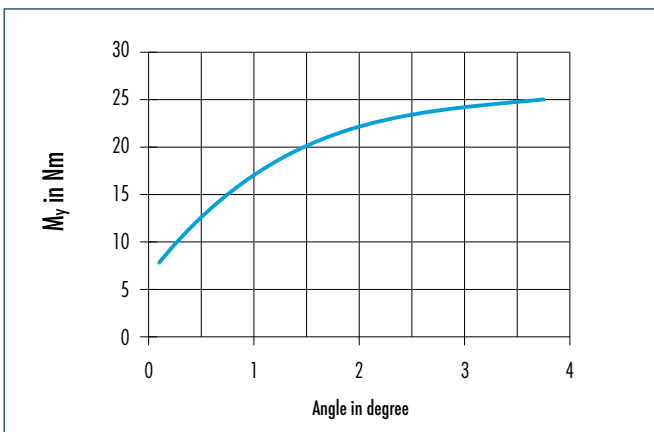
Designation		OPR-061-P00	OPR-061-P05	OPR-061-P10	OPR-061-P15
ID without splash protection		321361	321362	321363	321364
ID with splash protection		321365	321366	321367	321368
Axial compensation	[mm]	5.6	5.6	5.6	5.6
Angular compensation	[°]	11	11	11	11
Rotational compensation	[°]	20	20	20	20
Triggering force with maximum operating pressure	[N]	880	880	880	880
Triggering torque with maximum operating pressure	Angular [Nm]	28	28	28	28
	Rotational [Nm]	24.4	24.4	24.4	24.4
Triggering force safeguarded by springs	[N]	-	43	86	128
Triggering torque safeguarded by springs	Angular [Nm]	-	1.4	2.7	4.1
	Rotational [Nm]	-	1.2	2.4	3.6
Maximum operating pressure	[bar]	6.0	5.7	5.4	5.1
Repeat accuracy	[mm]	+/- 0.025	+/- 0.025	+/- 0.025	+/- 0.025
Rotational repeat accuracy	[min]	+/- 5	+/- 5	+/- 5	+/- 5
Sensitivity	[mm]	0.5	0.5	0.5	0.5
Weight	[kg]	0.32	0.35	0.35	0.35

Main views



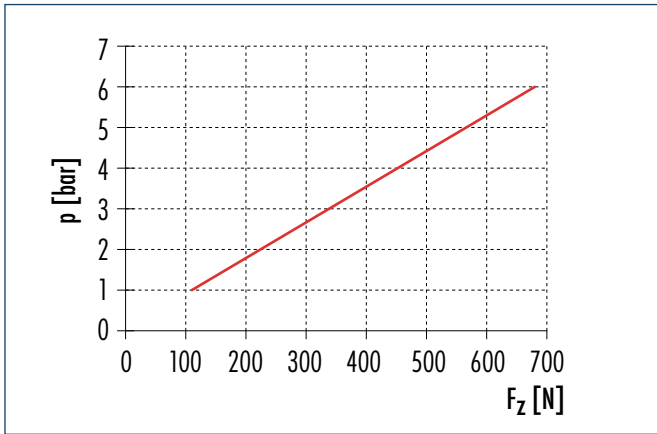
②9 Through-bore for screw connection

Moment load

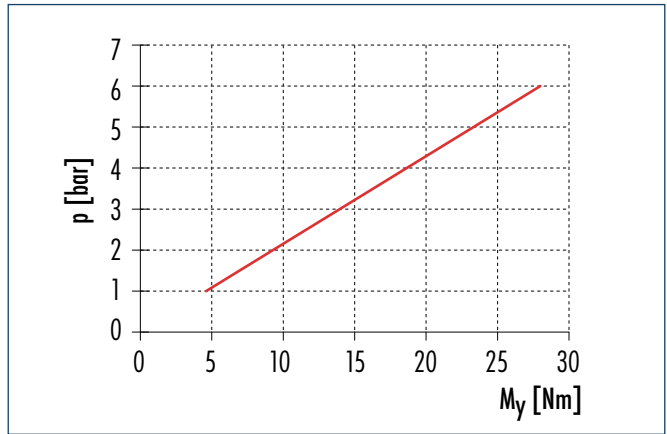


The diagram shows the actual deflection of the OPR, dependent upon the moment M_x at the maximum permissible operating pressure.

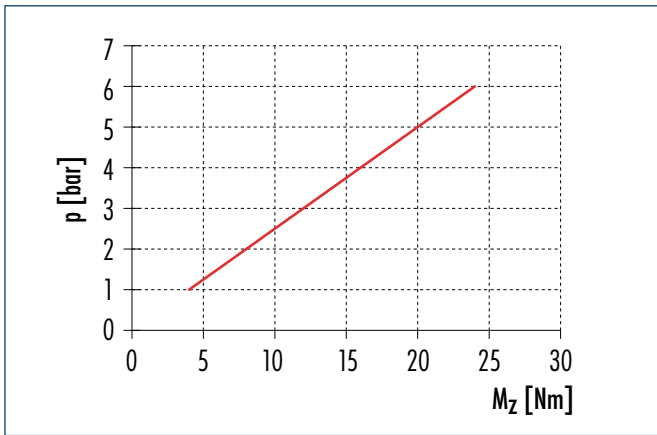
Force and moment range



Axial (F_z)

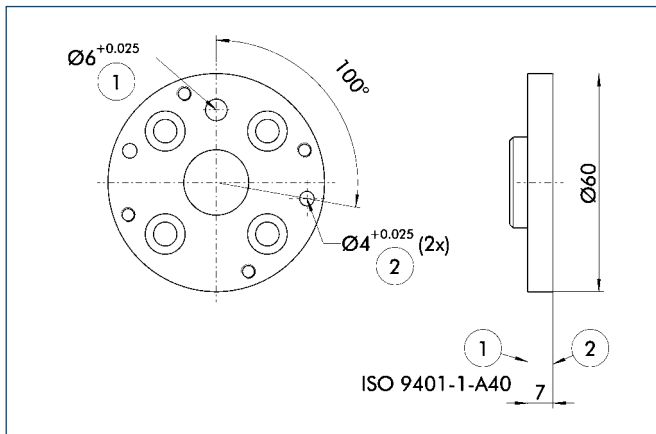


Moment (M_y)



Torsion (M_z)

Adapter plate A40

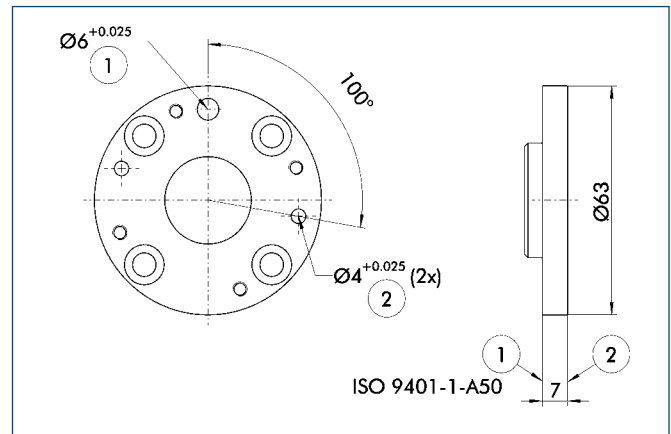


- ① Robot-side connection
- ② Tool-side connection

For mounting the OPR-061 directly to a flange in accordance with ISO 9409-40-4-M6

Designation	ID
A-OPR-061-ISO-A40-R	0321370

Adapter plate A50



- ① Robot-side connection
- ② Tool-side connection

For mounting the OPR-061 directly to a flange in accordance with ISO 9409-50-4-M6

Designation	ID
A-OPR-061-ISO-A50-R	0321371

