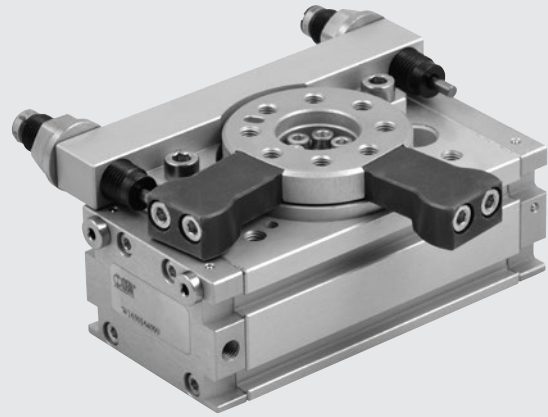


ROTARY ACTUATOR SERIES R3 WITH EXTERNAL SHOCK ABSORBERS

Dual-rack actuator with automatic adjustment for wear. Hydraulic shock absorbers are arranged externally and operate at a distance from the axis of rotation which is considerably higher than for internal ones. This means that the absorbable kinetic energy is 4 to 8 times higher. It is reduced in length as there are no adjusting screws. A 90° and a 180° versions are available. Grooves are provided in the body to fix retractable magnetic proximity sensors, two on each side. A hole has been drilled in the flange for the passage of air pipes or power cables.

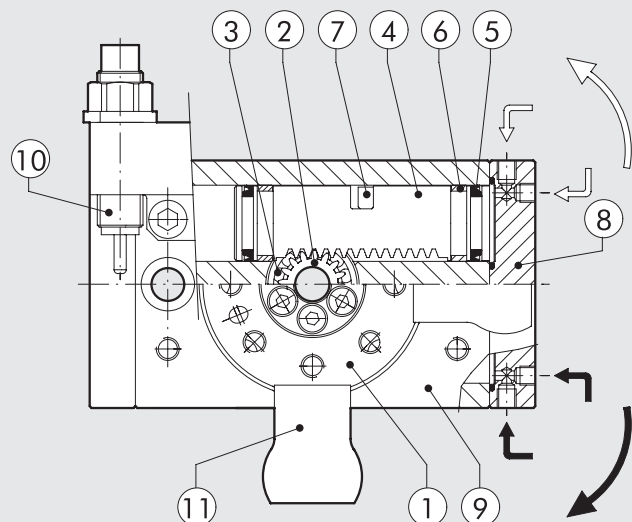
N.B.: We always suggest to use flow microregulators. During the setup of the actuator, start with CLOSE flow microregulators, and open gradually till the achievement of the required speed.



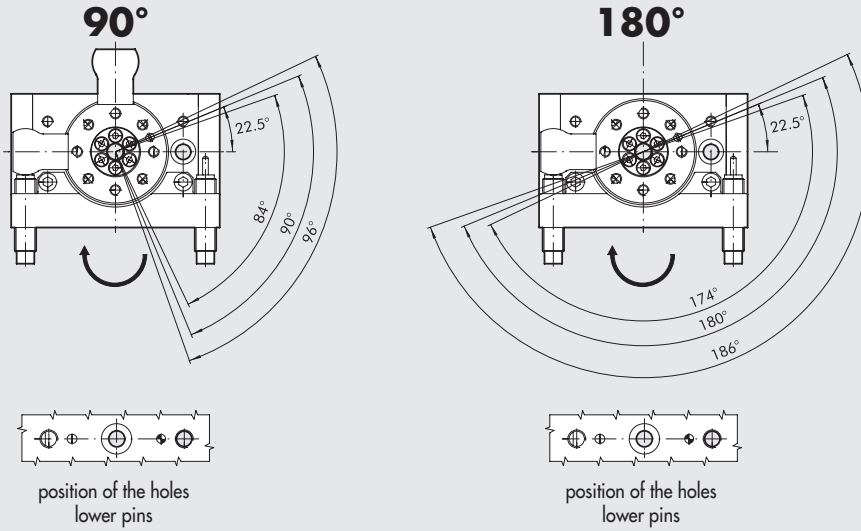
TECHNICAL DATA		R3-16	R3-20	R3-22	R3-25	R3-30	R3-40
Operating pressure	bar	3 to 7					
	MPa	0.3 to 0.7					
	psi	43.5 to 101					
Temperature range	°C	-10 to +80					
Angle adjustment	degrees	90° o 180° ± 3°					
Fluid		20 µm filtered, lubricated or unlubricated air; lubrication if used, it must be continuous					
Sizes	mm	16	20	22	25	30	40
Bore	mm	2 x 16	2 x 20	2 x 22	2 x 25	2 x 30	2 x 40
Theoretical torque at 6 bar	Nm	0.9	1.8	2.7	4.6	9.3	22
Max. axial load	N	74	135	195	300	340	360
Max. radial load	N	78	137	360	450	490	560
Max overturning moment	Nm	2.4	4	5.3	9.7	12	18
Admissible kinetic energy	J	0.16	0.55	0.85	1.40	1.85	3.35
Rotation time without load	s	0.2	0.2	0.2	0.2	0.3	0.3

COMPONENTS

- ① ROTARY FLANGE: anodized aluminium
- ② PINION: hardened and tempered steel
- ③ BALL BEARING
- ④ PISTON / RACK: hardened and tempered steel
- ⑤ CUSHIONING GASKET: NBR
- ⑥ GUIDE PAD: PTFE
- ⑦ MAGNET: neodymium
- ⑧ HEAD: anodized aluminium
- ⑨ BARREL: anodized aluminium
- ⑩ STROKE REGULATOR WITH HYDRAULIC SHOCK ABSORBERS
- ⑪ Block for 90° version



ROTATION ANGLE

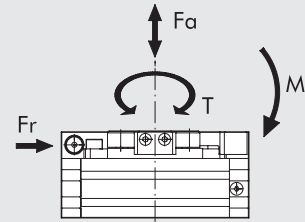


ADMISSIBLE KINETIC ENERGY Joule [J]

Bore Ø	With flange, 90° rotation°: W1630_4090	With flange, 180° rotation°: W1630_4180
16	0.16	
20	0.55	
22	0.85	
25	1.40	
30	1.85	
40	3.35	

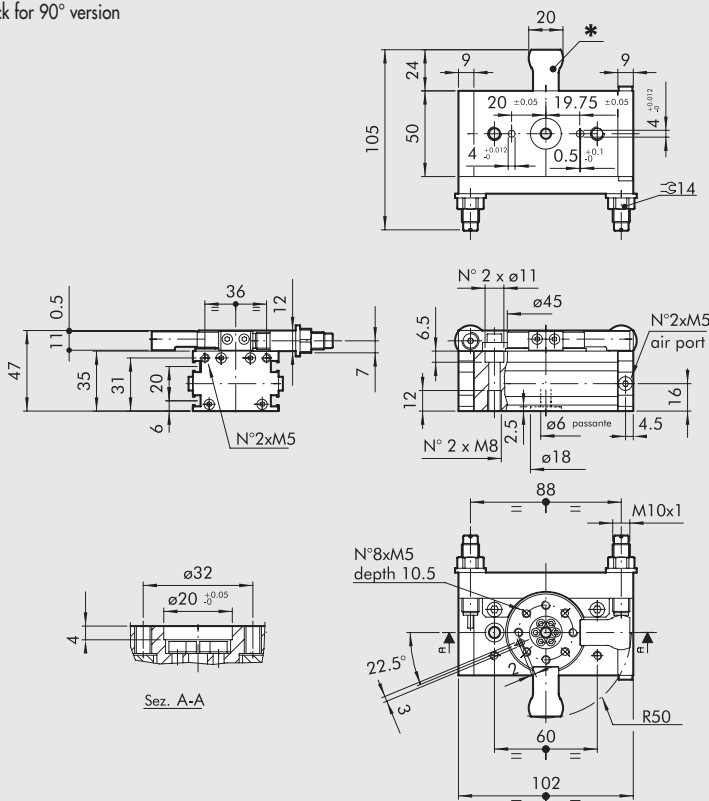
DIMENSIONES - FORCES AND MOMENTS

Bore Ø	T Theoretical torque at 6 bar [Nm]	FA Max. axial load [N]	FR Max. radial load [N]	M Averturing momnet [Nm]
16	0.9	74	78	2.4
20	1.8	135	137	4
22	2.7	195	360	5.3
25	4.6	300	450	9.7
30	9.3	340	490	12
40	22	360	560	18



ROTARY ACTUATOR SERIES R3-16 WITH EXTERNAL SHOCK ABSORBERS, 90/180°

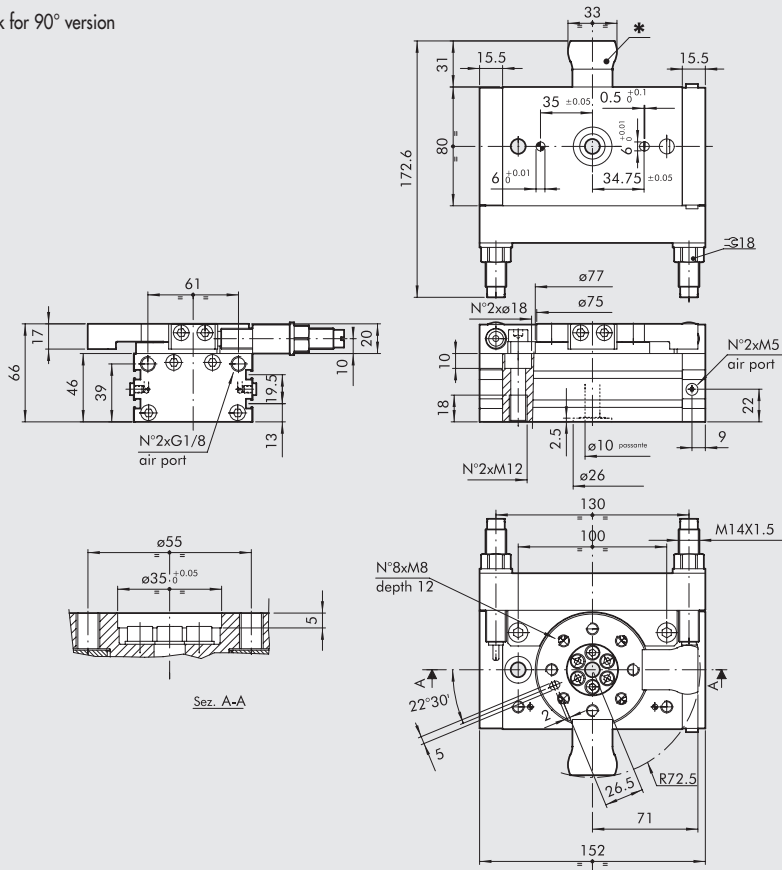
* Block for 90° version



Code	Description
W1630164090	Rotary actuator with flange + shock absorbers R3-16-90
W1630164180	Rotary actuator with flange + shock absorbers R3-16-180

ROTARY ACTUATOR SERIES R3-25 WITH EXTERNAL SHOCK ABSORBERS, 90/180°

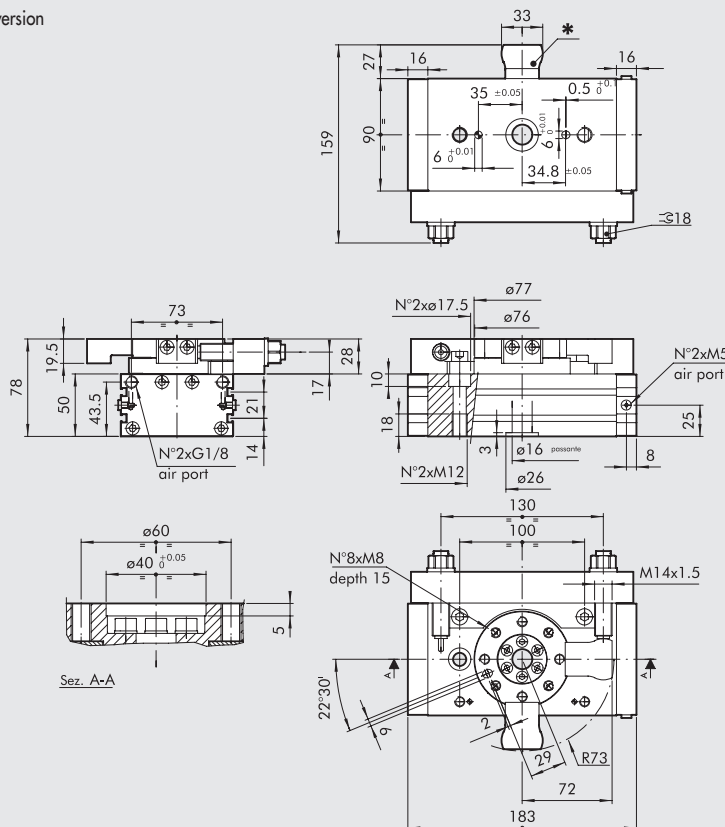
* Block for 90° version



Code	Description
W1630254090	Rotary actuator with flange + shock absorbers R3-25-90
W1630254180	Rotary actuator with flange + shock absorbers R3-25-180

ROTARY ACTUATOR SERIES R3-30 WITH EXTERNAL SHOCK ABSORBERS, 90/180°

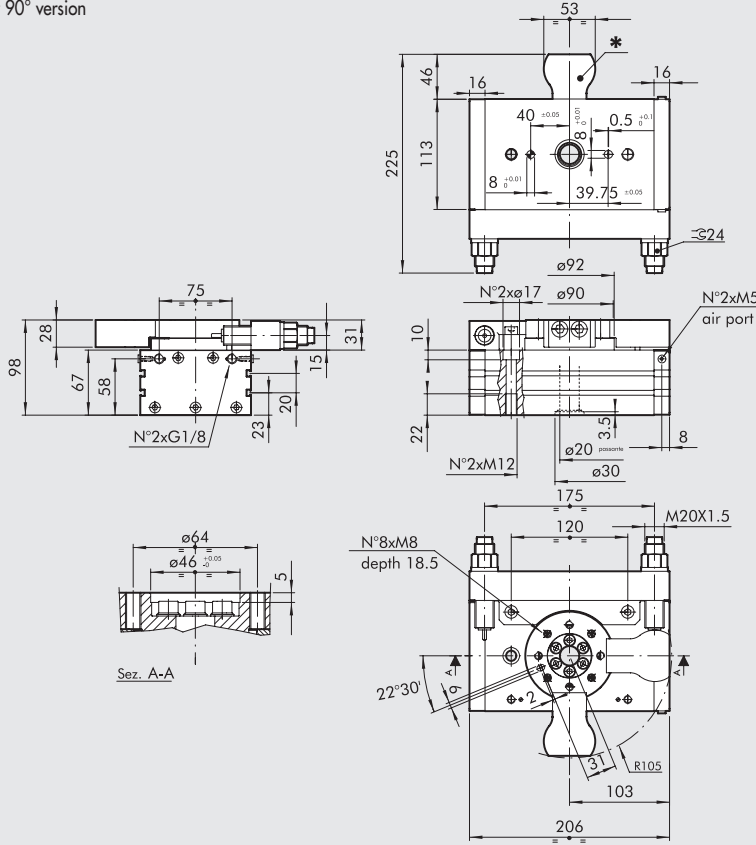
* Block for 90° version



Code	Description
W1630304090	Rotary actuator with flange + shock absorbers R3-30-90
W1630304180	Rotary actuator with flange + shock absorbers R3-30-180

ROTARY ACTUATOR SERIES R3-40 WITH EXTERNAL SHOCK ABSORBERS, 90/180°

* Block for 90° version



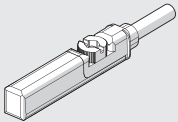
Code	Description
W1630404090	Rotary actuator with flange + shock absorbers R3-40-90
W1630404180	Rotary actuator with flange + shock absorbers R3-40-180

ACCESSORIES

RETRACTABLE SENSOR

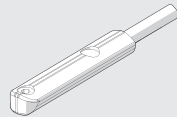
SENSOR, SQUARE TYPE

Latest generation, secure fixing



SENSOR, OVAL TYPE

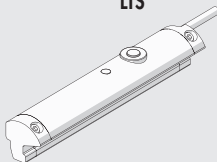
Traditional



For codes and technical data, see chapter A6.

POSITION SENSORS

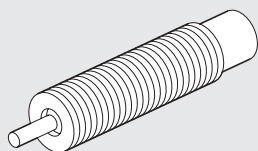
LTS



For technical data and usage strokes see chapter A6.

SPARE PARTS

SHOCK ABSORBERS



Code	Ø	Description
0950004009	16	Shock absorbers ECO 10 MF3 M10x1
0950004010	22	Shock absorbers ECO 15 MF4 M12x1
0950004015	25 - 30	Shock absorbers ECO S 25 MC2 M14x1.5
0950004005	40	Shock absorbers ECO MC2 + nut M20x1.5

NOTES