

# ROTARY ACTUATOR SERIES R2

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Actuator with double rack and play take-up. Four sizes – 12, 16, 20 and 25. Two angles of rotation – 90° and 180°. Stroke adjustment system for all sizes. Pneumatic cushioning for all sizes except the smallest. There are slots in the body to house a magnetic proximity sensor. Air supply, stroke adjustment and cushioning adjustment are all on the same side.

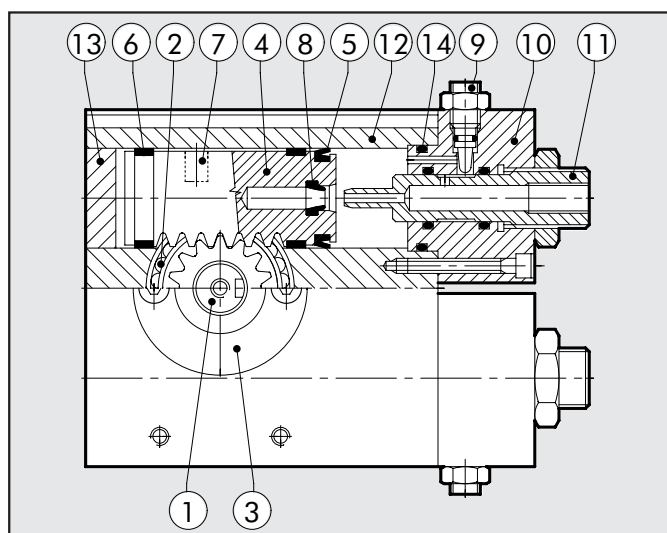


We always suggest to use flow microregulators. During the setup of the actuator, start with CLOSE flow microregulators, and open gradually till the achievement of the required speed.

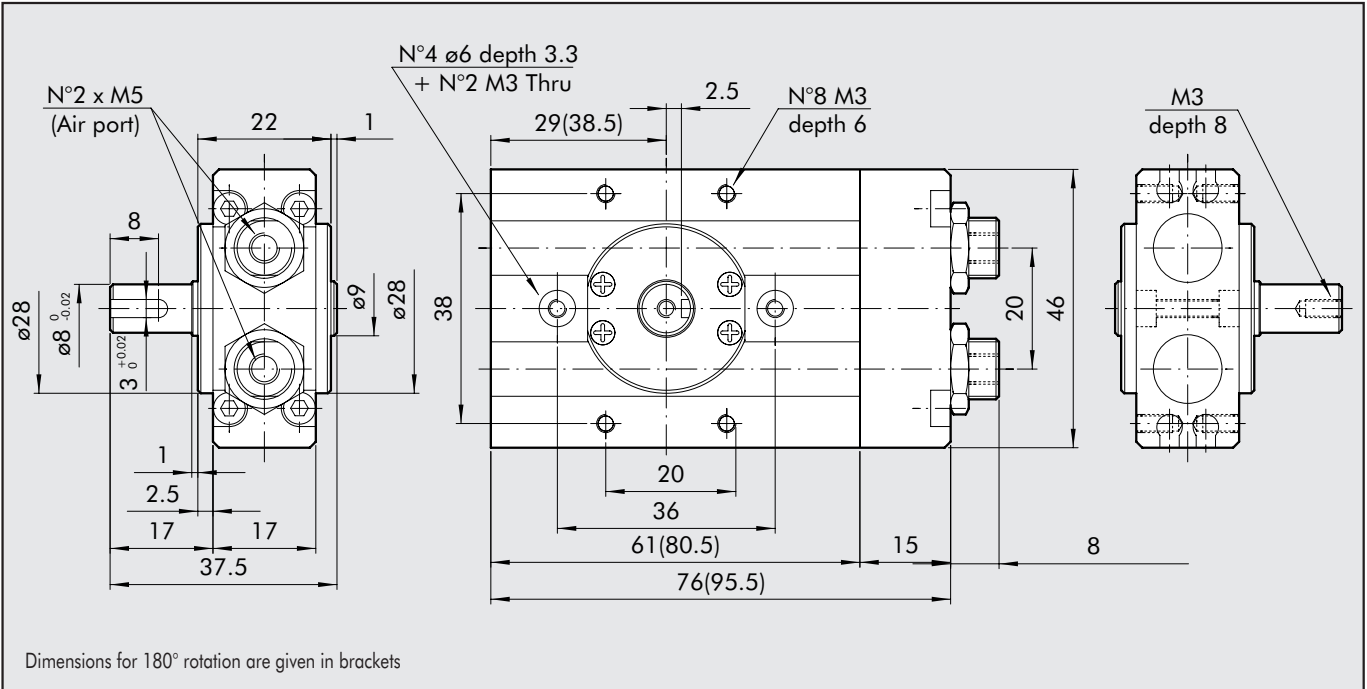
TECHNICAL FEATURES	R2 - 12	R2 - 16	R2 - 20	R2 - 25
Pressure range	bar 1.5 to 7			
Temperature range	°C 5 to 60			
Angle adjustment	degrees 35° (about +10° -25°)			
Fluid	10µm dried or lubricated filtered air. Lubrication, if used, must be continuous			
Versions	90°/180° rotation			
Ports	Both at the front			
Sizes	12	16	20	25
Theoretical torque (P=pressure in bar)	Nm 0.065 x P	0.14 x P	0.25 x P	0.48 x P
Max. axial load	N 8	14	40	80
Max. radial load	N 8	14	40	80
Weight with 90° rotation	Kg 0.18	0.26	0.63	0.8
Weight with 180° rotation	Kg 0.21	0.31	0.72	1
Rotation time without load				
• 90° angle	s 0.2	0.2	0.2	0.2
• 180° angle	s 0.3	0.3	0.3	0.3

## COMPONENTS

- ① ROTARY SHAFT / PINION: hardened and tempered steel
- ② BALL BEARING
- ③ FLANGE: anodised aluminium
- ④ PISTON / RACK: hardened and tempered steel
- ⑤ PISTON GASKET: NBR
- ⑥ GUIDE SHOE: PTFE
- ⑦ MAGNET: neodymium
- ⑧ CUSHIONING GASKET: NBR
- ⑨ CUSHIONING PIN: zinc-plated steel
- ⑩ HEAD: anodised aluminium
- ⑪ PNEUMATIC CONNECTION / STROKE ADJUSTMENT: steel
- ⑫ JACKET: anodised aluminium
- ⑬ BASE: anodised aluminium
- ⑭ SEAL: NBR



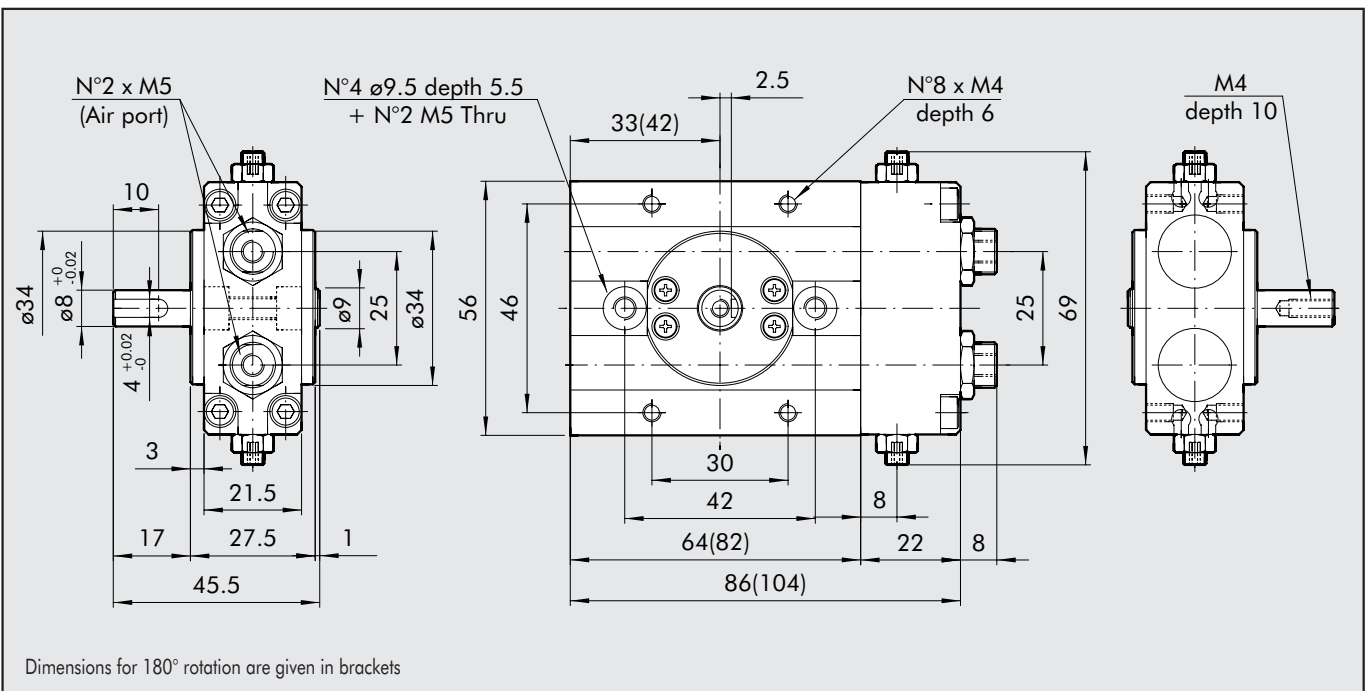
### ROTARY ACTUATOR R2 12 90°/180°



### ORDERING CODES

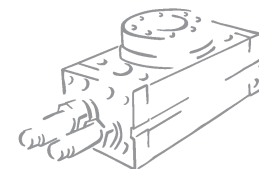
Code	Description
W1620122090	ROTARY ACTUATOR R2-12-90°
W1620122180	ROTARY ACTUATOR R2-12-180°

### ROTARY ACTUATOR R2 16 90°/180°



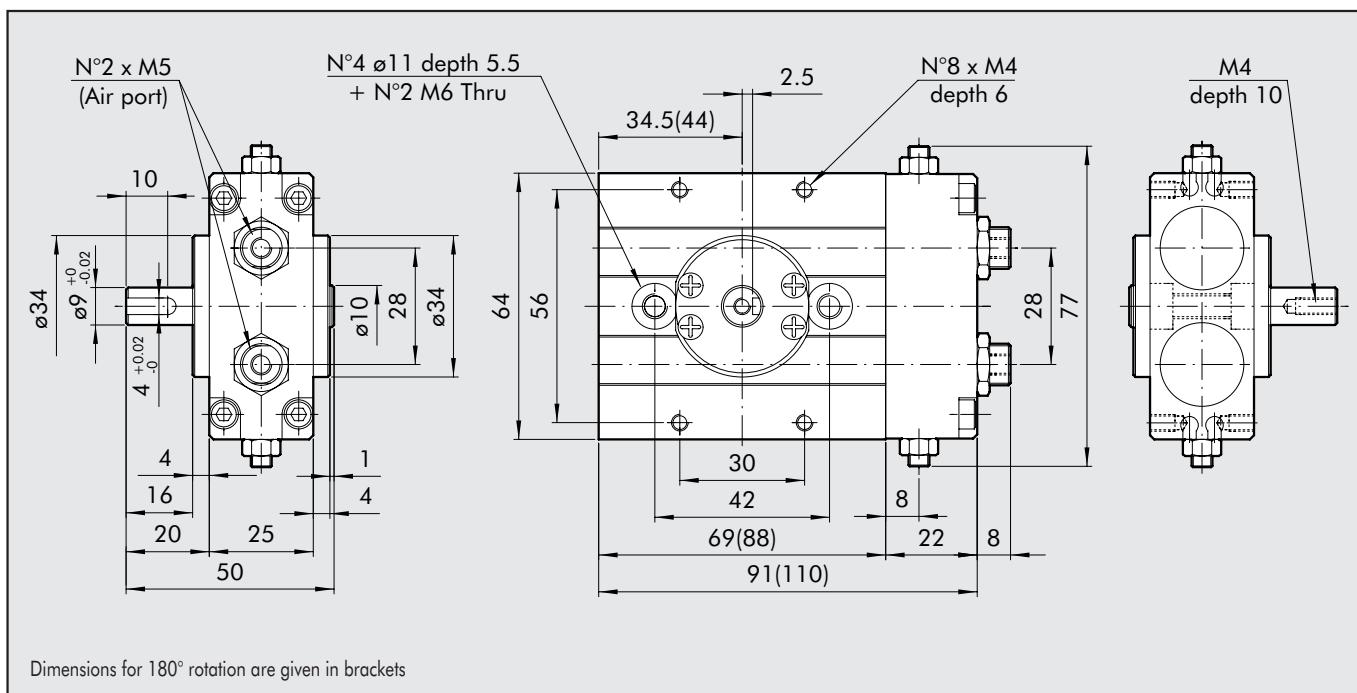
### ORDERING CODES

Code	Description
W1620162090	ROTARY ACTUATOR R2-16-90°
W1620162180	ROTARY ACTUATOR R2-16-180°



## ROTARY ACTUATOR R2 20 90°/180°

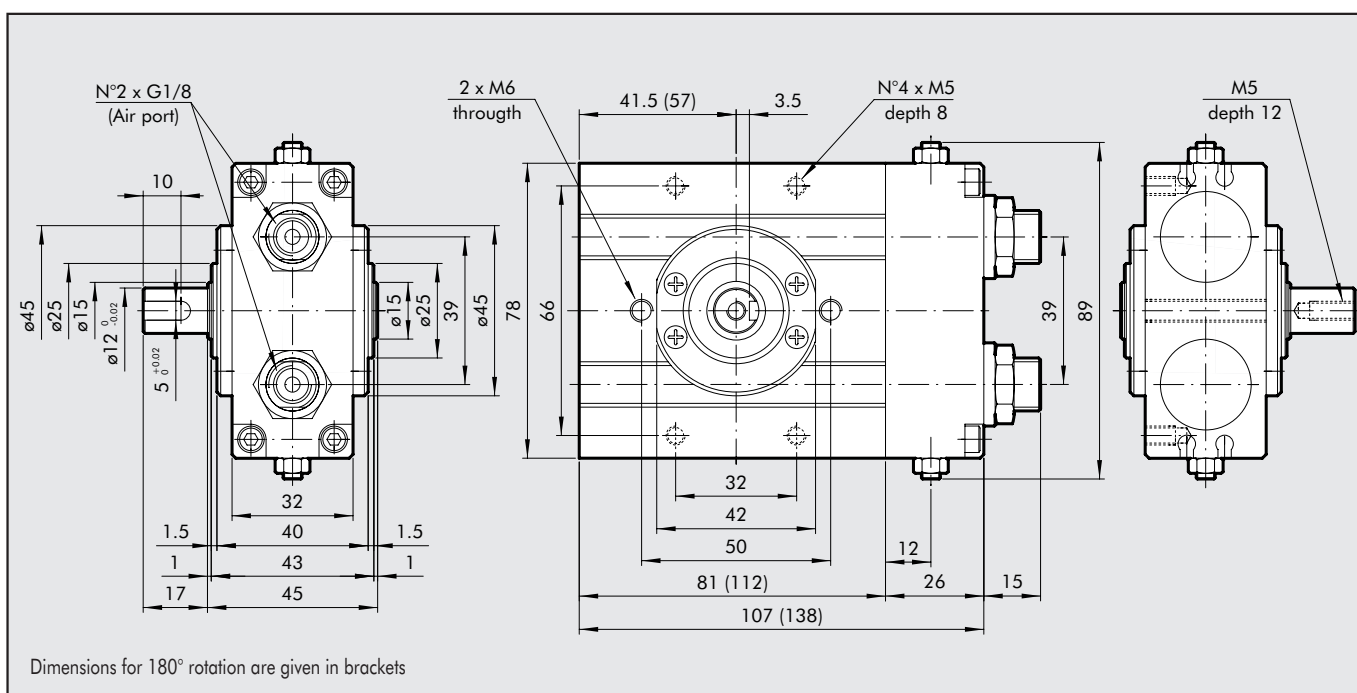
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### ORDERING CODES

Code	Description
W1620202090	ROTARY ACTUATOR R2-20-90°
W1620202180	ROTARY ACTUATOR R2-20-180°

## ROTARY ACTUATOR R2 25 90°/180°



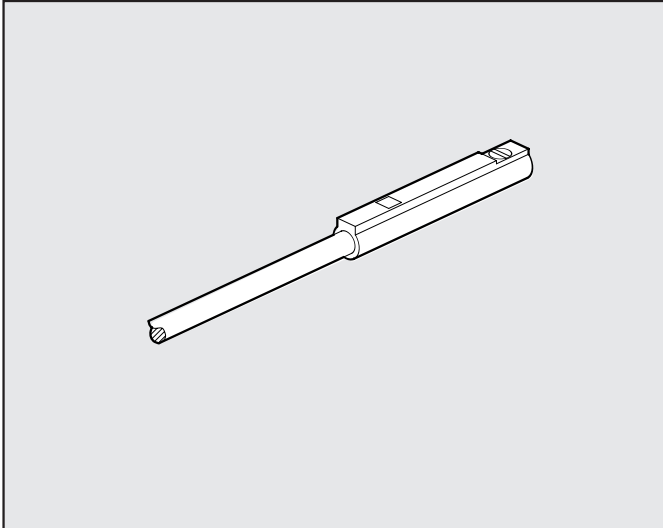
### ORDERING CODES

Code	Description
W1620252090	ROTARY ACTUATOR R2-25-90°
W1620252180	ROTARY ACTUATOR R2-25-180°

## ACCESSORIES

MAGNETIC SENSOR Ø 4, FOR R2-12 ÷ 25

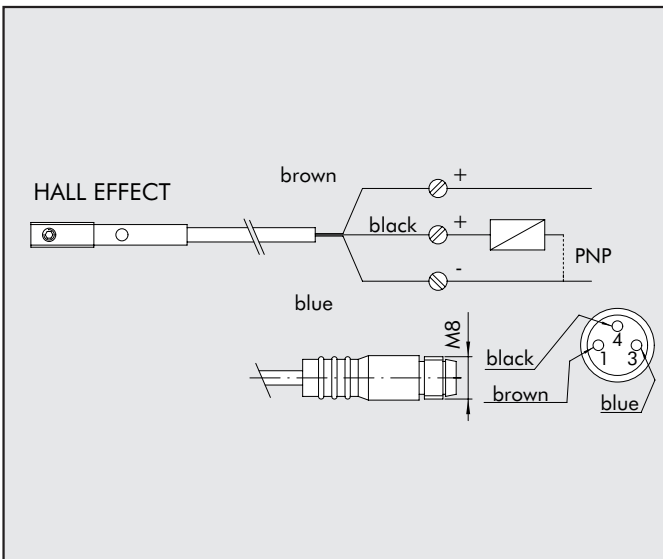
Code Description



W0950044180 Sensor REED 2 wires 24 VDC 1m  
W0950045390 Sensor HALL 3 wires 24 VDC 2m

WIRING DIAGRAM FOR W0950045390

TECHNICAL DATA



		Effetto Hall
Switch		PNP
Tension in DC	V	6 ÷ 30
Tension in AC	V	---
Current at 25°C	A	0,2
Power (ohmic load)	W	max 6
On time	µs	0,8
Off time	µs	0,3
On point	Gauss	30
Off point	Gauss	25
Electric life (pulses)		109
On voltage drop	V	<1
Nominal operating point	Gauss	30 ÷ 50
Operating frequency	Hz	max 200
Polarity reversal protection		Yes
Short-circuit protection		NO
Degree of protection (EN 60529)		IP 67
Temperature range	°C	-10 ÷ +70
Sensor capsule material		PA (+G)
LED display		Yellow
Wiring NO.		3

NOTES