

The RA is a double-acting rotary actuator of very compact design. It has a high torque and small installation dimensions.

The actuator has double pistons, which transmits the turning moment to the output shaft. The toothed piston rods act on the output shaft in a rack-and-pinion type arrangement. Each piston and toothed rod is of integral construction.

The rack-and-pinion type arrangement gives an even turning moment throughout the rotation movement.



- 5 unit sizes
- Torque from 20 to 200 Nm
- Turning angles of 90° or 180°
- Keyway output shaft
- Direct Namur valve connection

### Operating information

Working medium:	dry, filtered compressed air
Working pressure:	Max, 10 bar
Working temperature:	-20°C to +80°C

Prelubricated, further lubrication is not normally necessary.  
If additional lubrication is introduced it has to be continued.

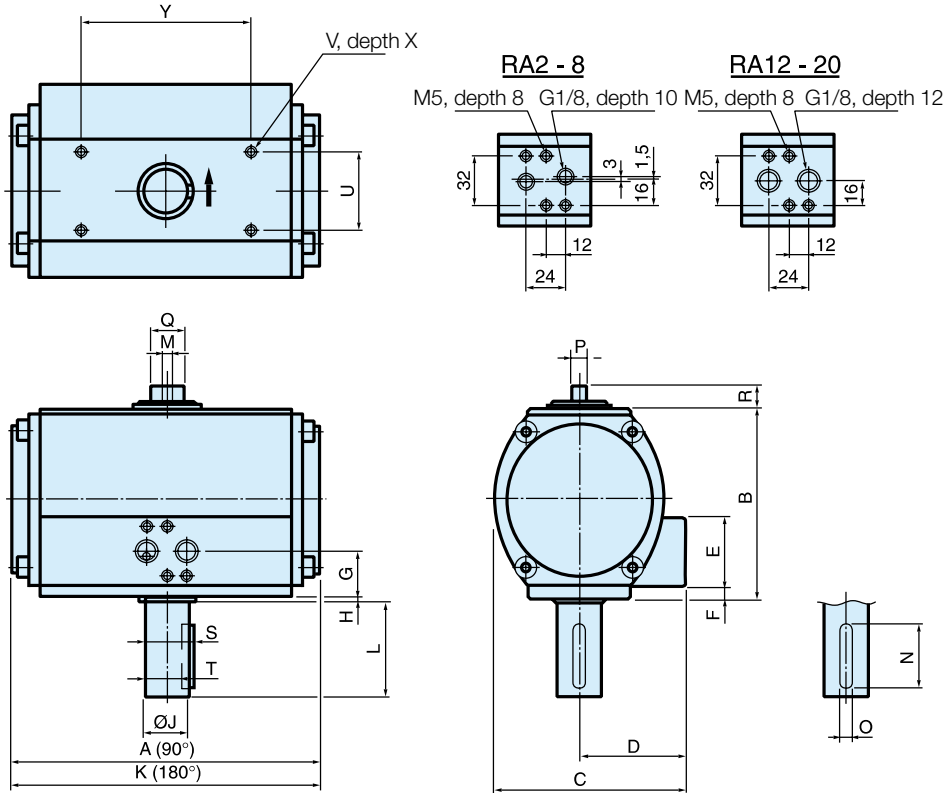
### Ordering information for RA

Angle	Order code
90°	<b>RA2-90</b>
180°	<b>RA2-180</b>
90°	<b>RA4-90</b>
180°	<b>RA4-180</b>
90°	<b>RA8-90</b>
180°	<b>RA8-180</b>
90°	<b>RA12-90</b>
180°	<b>RA12-180</b>
90°	<b>RA20-90</b>
180°	<b>RA20-180</b>

### Material specification

Cylinder block / end covers	Anodised aluminium, natural/black
Pistons	Aluminium
Relief surface bars	Stainless steel
Shaft	Zinc-plated steel
End cover screws	Zinc-plated steel
Seals	Nitrile rubber, NRB
Piston bearings	POM
Shaft bearings	Polyethene MOS2

Dimensions



Connection arrangements:  
EURO standard  
according to ISO and  
Namur- VDI/VDE 3845

The turning limits  
should be determined  
by external stop lugs.

Designation	A	B	C	D	E	F	G	H	ØJh8	K	L	M	N	O	P
RA2	114,5	73,0	75,5	43,5	41	-	20,5	4	14	169	30	M6	19	5	7,5
RA4	133,0	90,5	87,5	47,5	41	-	20,5	4	19	215	40	M6	31	6	7,5
RA8	174,0	109,0	105,0	57,0	42	7,5	28,5	4	19	268	40	M8	31	6	11,5
RA12	203,0	118,5	121,0	67,0	43	8,0	29,5	5	28	295	60	M8	48	8	11,5
RA20	218,0	140,5	136,5	72,0	43	8,0	29,5	5	28	337	60	M8	48	8	11,5

Designation	Q	R	S	T	U	V	X	Y
RA2	13	10,0	16,0	11,0	32	M5	8	50
RA4	15	11,0	21,5	15,5	32	M5	8	73
RA8	17	13,5	21,5	15,5	40	M6	10	90
RA12	20	15,0	31,0	24,0	49	M6	10	107
RA20	25	15,0	31,0	24,0	60	M6	10	120

Table of moments at 6 bar

Designation	Moment in Nm
RA2	22,8
RA4	45,0
RA8	81,7
RA12	134,0
RA20	224,0

Spare parts

Designation	Order code
Mounting plate for VGD15	9127 3864-01
seal kits/spare kits:	
RA-2-SS	9121 6799-20
RA-4-SS	9121 6799-21
RA-8-SS	9121 6799-22
RA-12-SS	9121 6799-23
RA-20-SS	9121 6799-24

Air consumption

Free air consumption in NI per double stroke at 600 kPa (6 bar).

Rotary actuator,type/ Turning angle	RA2	RA4	RA8	RA12	RA20
RA/90°	1,8	3,2	5,9	7,8	14,9
RA/180°	3,6	6,4	11,8	15,6	30

Variants available on request:

- Single-acting rotary actuator with spring return for 90°
- Non-standard turning angle
- Other surface treatments