



Series 6400 - Rotary actuators

General

These rotary actuators convert linear motion of a piston into a rotary motion via a rack and pinion device, using a single pinion-rack system for the 6411 version and a double system on 6400 versions. The 6410 series actuators have fixed stops at 90 and 180 degrees; while on the 6400 series, rotation can be adjusted between 0 and 190 degrees using variable stops that can also be substituted with hydraulic stoppers (shock absorbers). These devices are equipped with a rotating table upon which the load is fixed.



► **Double rack rotary actuators with turn table**



Ordering code

6400. . . .

- **A** = Standard
- **R** = Cushioning (shock absorber)
- **10** (piston ø15)
- **30** (piston ø20)
- **50** (piston ø25)
- **100** (piston ø32)
- **200** (piston ø40)

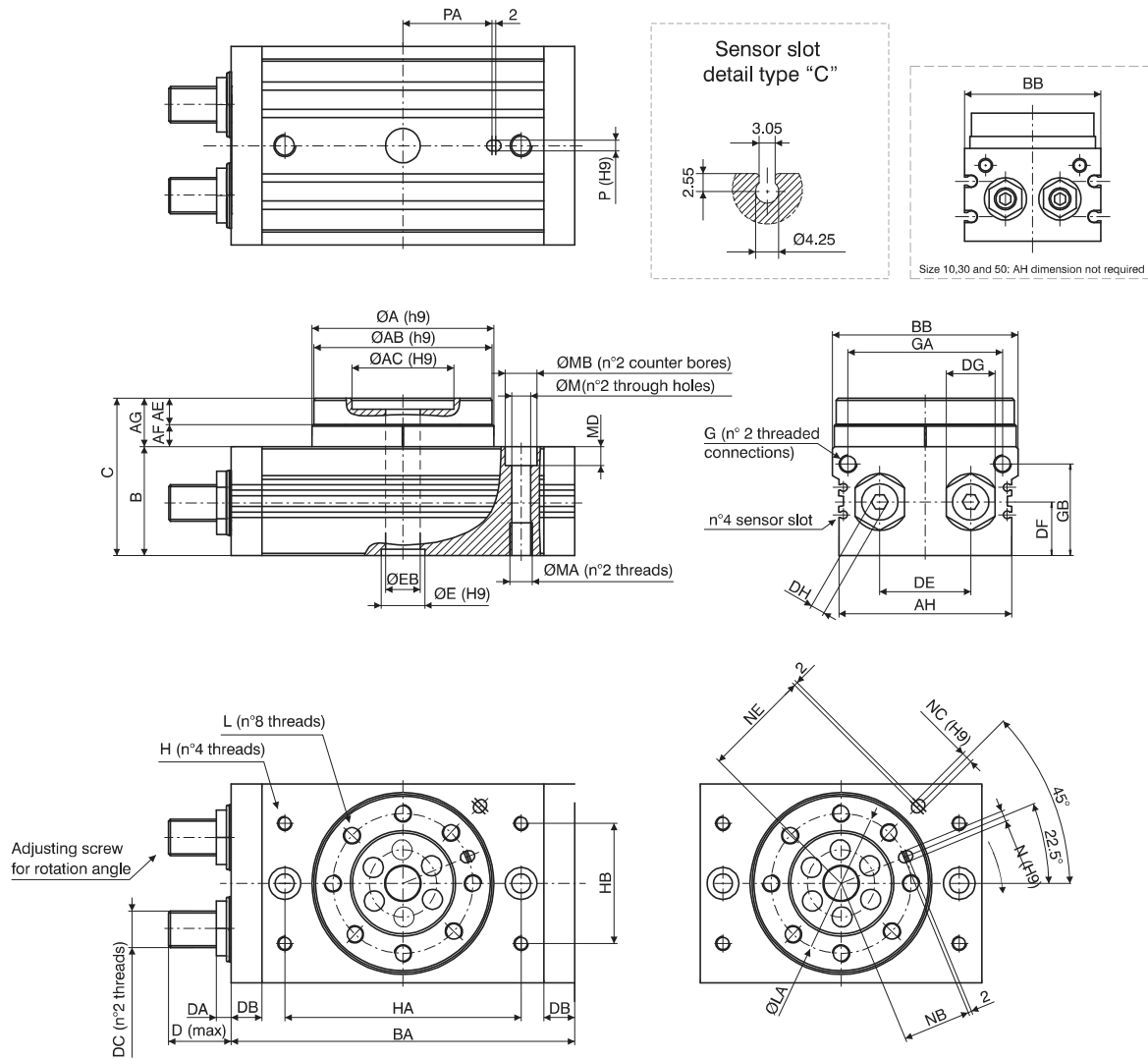
Construction characteristics

Body	anodised aluminium
End cap	anodised aluminium
Piston seal	NBR rubber
Pinion	steel
Rack	steel
Turn table	anodised aluminium
Cushioning	elastic bumper (hydraulic damper available on request)

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous.)
Max. pressure	10 bar (for type 100 and 200, 6 bar)
Working temperature	-5°C - +70°C
Rotation angle range	0 - 190°
Max. rotation	190°
Rotation speed	s/90° (see rotation time table)

Overall dimensions



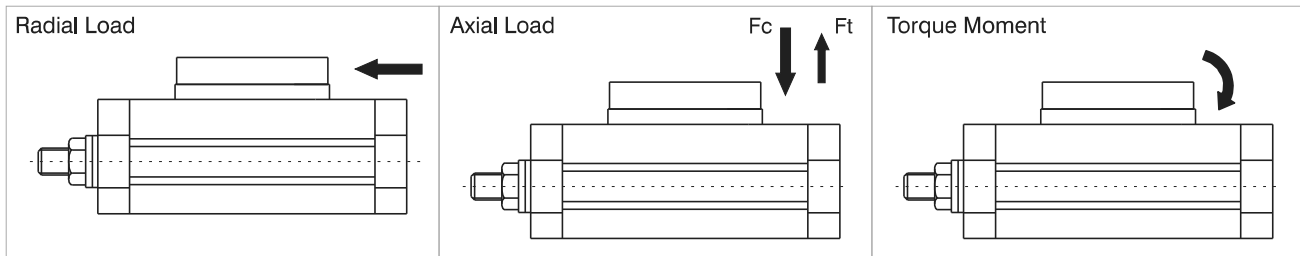
Size	10	30	50	100	200
Ø piston	Ø15	Ø21	Ø25	Ø32	Ø40
ØA ^{h9}	46	67	77	100	118
ØAB ^{h9}	45	65	75	98	116
ØAC ^{H9}	20	32	35	56	64
	Useful depth	4	4,5	5	6
AE	8	10	12	14,5	16,5
AF	5	7	8	12,5	15,5
AG	13	17	20	27	32
AH	/	/	/	95	114
B ^{+0,5 / 0}	34	40	46	59	74
BA	92	127	152	189	240
BB ^{+0,5 / 0}	50	70	80	102	120
C ^{+0,5 / 0}	47	57	66	86	106
D	17,7	25	31,4	34,3	40,2
DA	8,6	10,6	14	8	20
DB	9,5	12	15,5	17	24
DC	M8x1	M10x1	M14x1,5	M20x1,5	M27x1,5
DE	20	29	38	50	60
DF	15,5	18,5	22	29,5	36,5
DH	4	5	6	8	10
ØE ^{H9}	15	22	26	24	32
	Useful depth	3	3	3	3,5

Size	10	30	50	100	200
Ø piston	Ø15	Ø21	Ø25	Ø32	Ø40
GA	34,5	50	63	85	103
GB	27,8	32	37,5	50,5	65,5
H	M5x0,8	M6x1	M8x1,25	M8x1,25	M12x1,75
	Useful depth	8	8	8	10
HA	60	84	100	130	150
HB	27	37	50	66	80
L	M5x0,8	M6x1	M8x1,25	M10x1,5	M12x1,75
	Useful depth	8	10	12	14,5
LA	32	48	55	77	90
M	6,8	8,6	10,5	10,4	14,2
MA	M8x1,25	M10x1,5	M12x1,75	M12x1,75	M16x2
	Useful depth	12	15	18	18
MB	11	14	18	17,5	20
MD	6,5	8,5	10,5	10,5	12,5
N ^{H9}	3	4	5	6	8
	Useful depth	3,5	4,5	5,5	6,5
NB	15	23	26,5	37,5	44
NC ^{H9}	/	/	/	6	8
	Useful depth	/	/	/	4,5
NE	/	/	/	59	69
P ^{H9}	/	/	/	6	8
	Useful depth	/	/	/	4,5



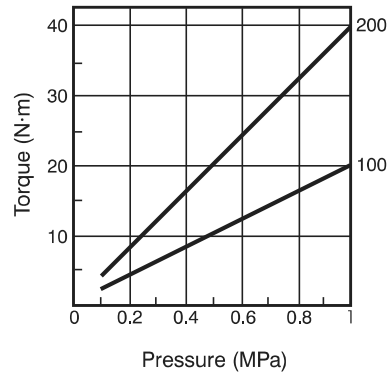
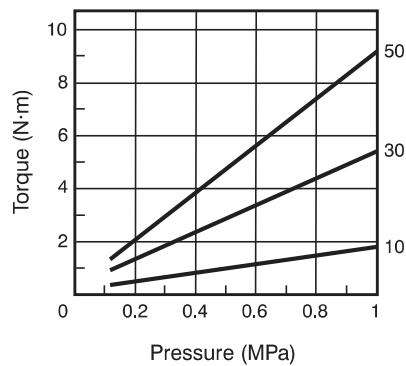
Permissible Loads

		Size				
		10	30	50	100	200
Radial Load (N)		80	200	320	400	550
Axial Load (N)	Fc	80	370	450	710	1000
	Ft	75	200	300	500	750
Torque Moment (Nm)		2,5	5,5	9,5	18	25



3

Torque Diagrams



Rotation time (sec./90°)

Dimension	With adjusting screw	With hidraulic decelerator
10 - 30 - 50	0.2 - 1	0.2 - 0,7
100	0.2 - 2	0.2 - 1
200	0.2 - 2.5	0.2 - 1

Kinetic energy

Dimension	With adjusting screw	With hidraulic decelerator
10	0.006	Please apply to our tech-dpt for info (as general rule expressed valves can be multiplied by 3)
30	0.045	
50	0.08	
100	0.30	

PNEUMATIC ACTUATION