

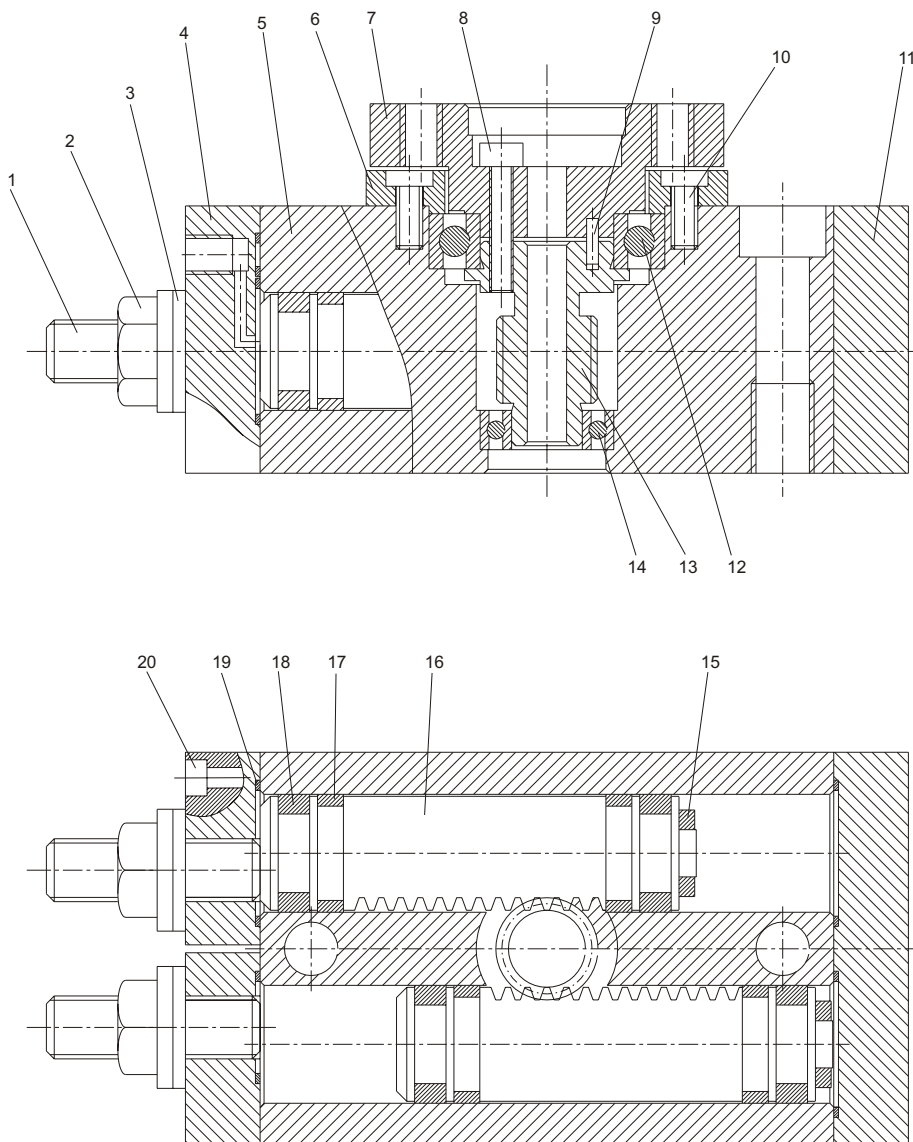


# ROTARY ACTUATORS

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# Double rack Rotary actuators with turn table Component descriptions

Series 6400

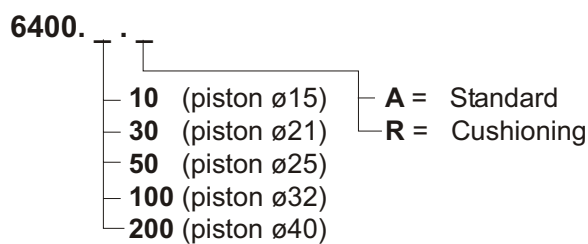


4

Pos.	Item	Qty.	Pos.	Item	Qty.
1	Adjusting screw	2	11	End cover	1
2	Lock nut	2	12	Upper bearing	1
3	Washer	2	13	Pinion	1
4	Front head cover	2	14	Lower bearing	1
5	Body	1	15	Magnet	2
6	Closing flange	1	16	Rack	2
7	Turn table	1	17	Sliding shoe	4
8	Pinion-turn table fixing screw	6	18	Piston seal	4
9	Pin	1	19	Seal	4
10	Flange-Body fixing screw	6	20	Front head cover fixing screw	4



### Ordering code



**NOTE :** Magnetic sensors see page 4.9

### Construction characteristics

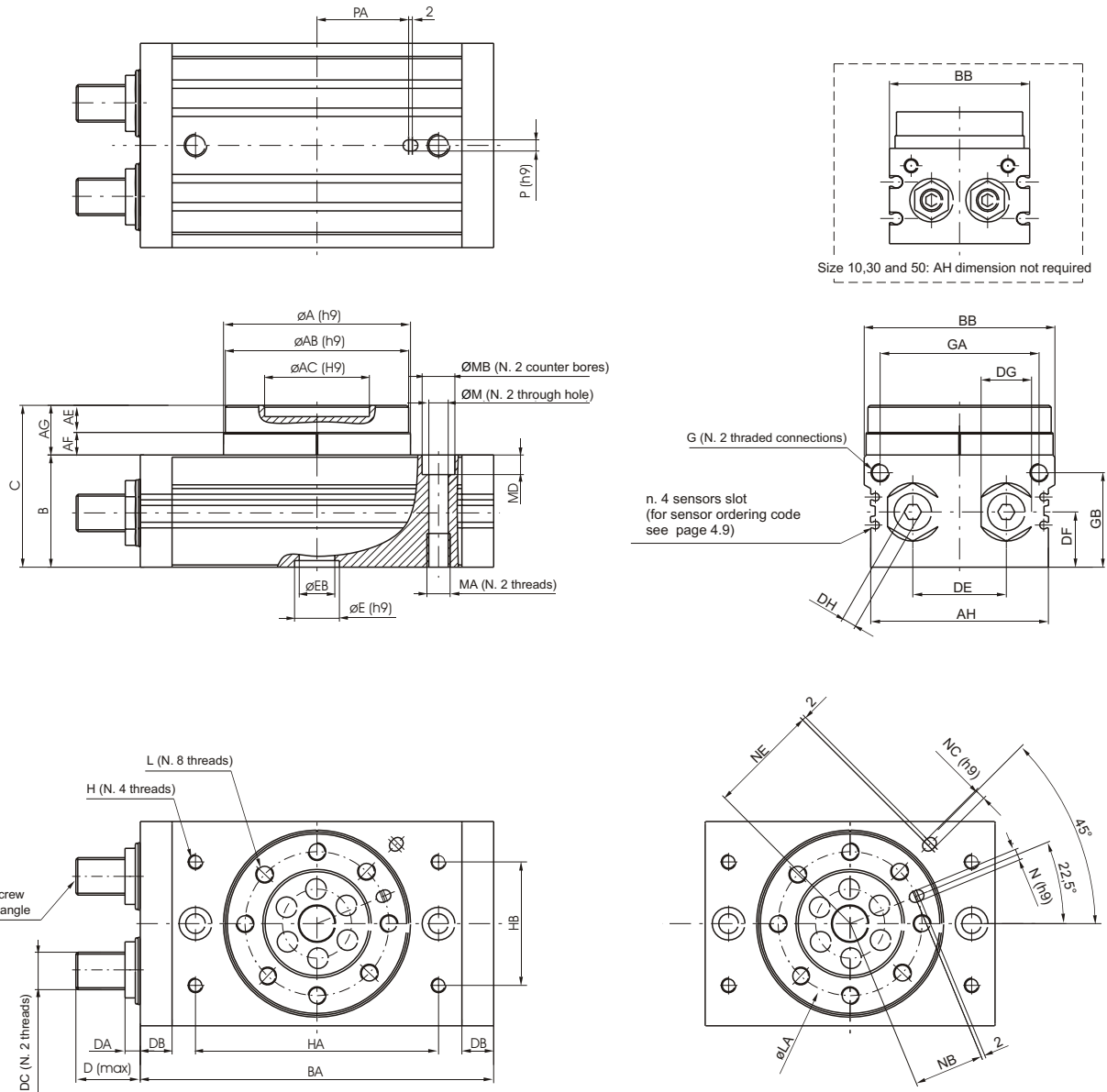
Body	aluminium alloy
Cover plate	steel
End plate	steel
Piston seal	NBR rubber
Pinion	steel
Rack	steel
Turn table	steel
Cushioning	elastic bumper (hydraulic damper available on request)

### Technical characteristics

Fluid	filtered and non lubricated air
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	0,2 ÷ 1 sec/90°

# Double rack Rotary actuators with turn table Overall dimensions

Series 6400



Size 10,30 and 50: AH dimension not required

G (N. 2 threaded connections)  
n. 4 sensors slot  
(for sensor ordering code see page 4.9)

Size	ØA (h9)	ØAB (h9)	ØAC (H9)	AE	AF	AG	AH	AL	B	BA	BB	C	D	DA	DB	DC	DE	DF
10	46	45	20 (act ual d ept h 4)	8	5	13			34	92	50	47	17,7	8,6	9,5	M8x1	20	15,5
30	67	65	32 (act ual d ept h 4,5)	10	7	17	/	/	40	127	70	57	25	10,6	12	M10x1	29	18,5
50	77	75	35 (act ual d ept h 5)	12	8	20			46	152	80	66	31,4	14	15,5	M14x1,5	38	22
100	100	98	56 (act ual d ept h 6)	14,5	12,5	27	95	101	59	189	102	86	34,3	8	17	M20x1,5	50	29,5
200	118	116	64 (act ual d ept h 9)	16,5	15,5	32	113	119	74	240	120	106	40,2	8	24	M27x1,5	60	36,5

Size	DG	DH	ØE (h9)	ØEB	G	GA	GB	H	HA	HB	L
10	12	4	15 (act ual d ept h 3)	5	M5x0,8	34,5	27,8	M5x0,8 (usef ul d ept h 8)	60	27	M5x0,8 (usef ul d ept h 8)
30	14	5	22 (act ual d ept h 3)	9	G1/8	50	32	M6x1 (usef ul d ept h 8)	84	37	M6x1 (usef ul d ept h 10)
50	19	6	26 (act ual d ept h 3)	10	G1/8	63	37,5	M8x1,25 (usef ul d ept h 8)	100	50	M8x1,25 (usef ul d ept h 12)
100	27		24 (act ual d ept h 3,5)	19	G1/8	85	50,5	M12x1,75 (usef ul d ept h 10)	130	66	M10x1,5 (usef ul d ept h 14,5)
200	36		32 (act ual d ept h 5,5)	24	G1/8	103	65,5	M12x1,75 (usef ul d ept h 13)	150	80	M12x1,75 (usef ul d ept h 16,5)

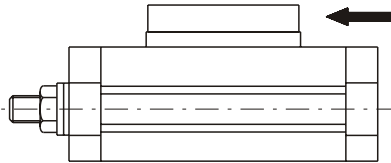
Size	LA	M	MA	MB	MD	N (h9)	NB	NC (h9)	NE	P (h9)	PA	Weight (gr.)
10	32	6,8	M8x1,25 (usef ul d ept h 12)	11	6,5	3 (act ual d ept h 3,5)	15					530
30	48	8,6	M10x1,5 (usef ul d ept h 15)	14	8,5	4 (act ual d ept h 4,5)	23	/	/	/	/	1230
50	55	10,5	M12x1,75 (usef ul d ept h 18)	18	10,5	5 (act ual d ept h 5,5)	26,5					2080
100	77	10,4	M12x1,75 (usef ul d ept h 18)	17,5	10,5	6 (act ual d ept h 6,5)	37,5	6 (act ual d ept h 4,5)	59	6 (act ual d ept h 4,5)	49	4100
200	90	14,2	M16x2 (usef ul d ept h 25)	20	12,5	8 (act ual d ept h 8,5)	44	8 (act ual d ept h 4,5)	69	8 (act ual d ept h 6,5)	54	7650



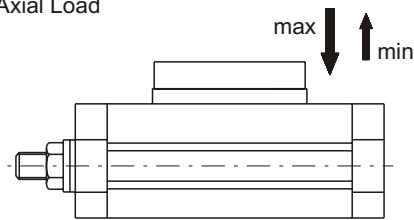
Permissible Loads

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

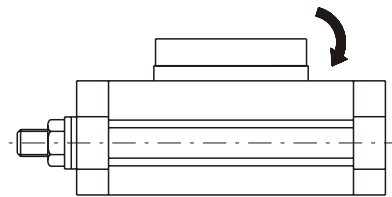
Radial Load

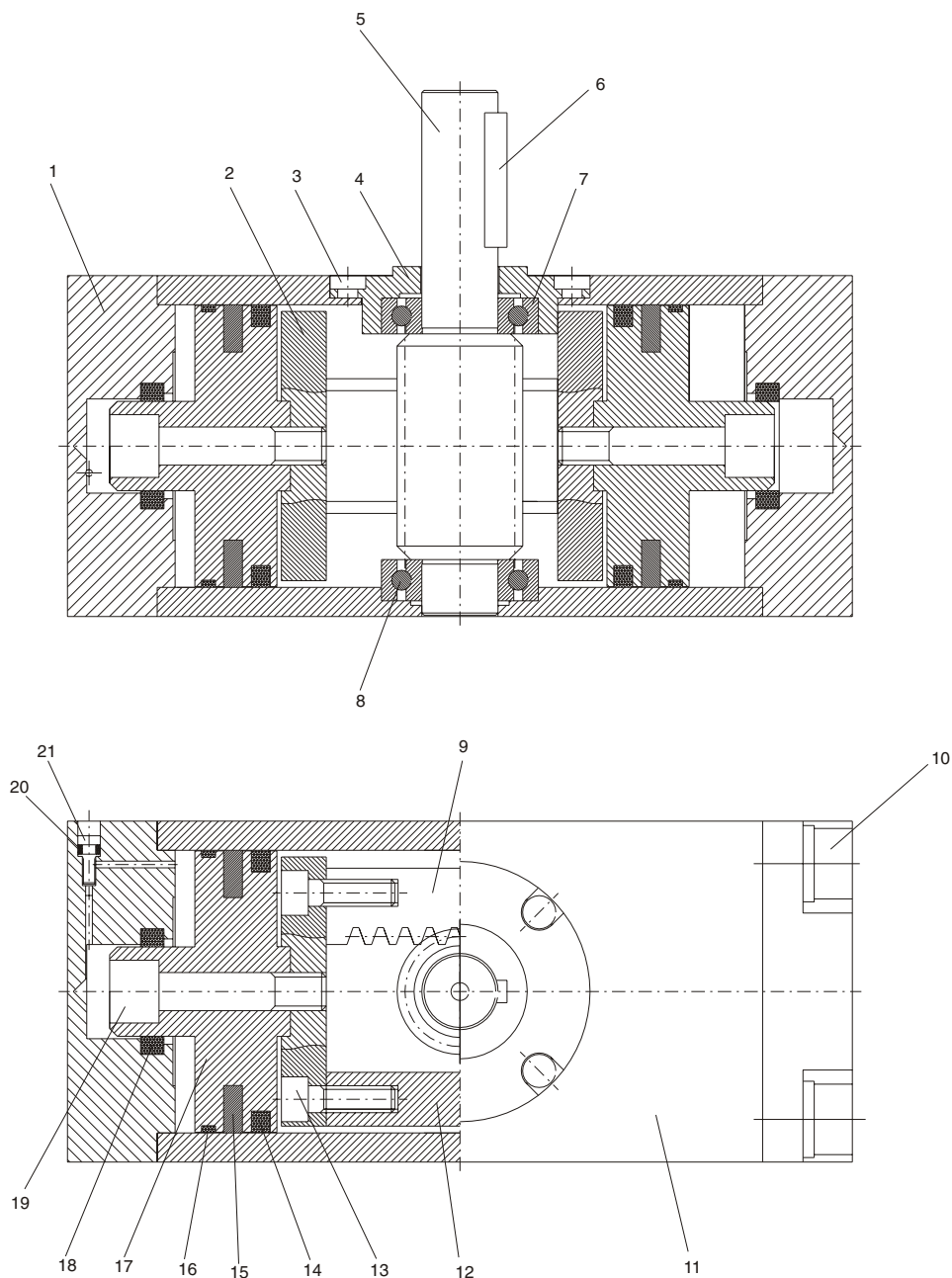


Axial Load



Torque Moment

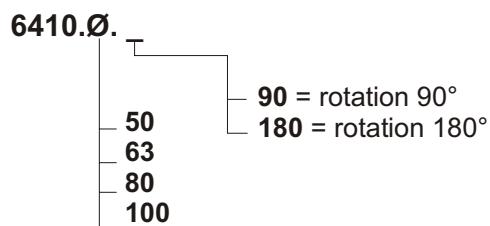




Pos.	Item	Qty.	Pos.	Item	Qty.
1	End plate	2	12	Guiding rod	1
2	Rack support	2	13	Rack fixing screw	4
3	Upper bearing flange fixing screw	4	14	Piston seal	2
4	Upper bearing flange	1	15	Magnet	2
5	Pinion	1	16	Sliding shoe	2
6	Key	1	17	Piston	2
7	Upper bearing	1	18	Cushioning washer	2
8	Lower bearing	1	19	Piston fixing screw	2
9	Rack	1	20	Cushioning screw seal	2
10	End plate fixing screw	8	21	Cushioning adjusting screw	2
11	Body	1			



### Ordering code



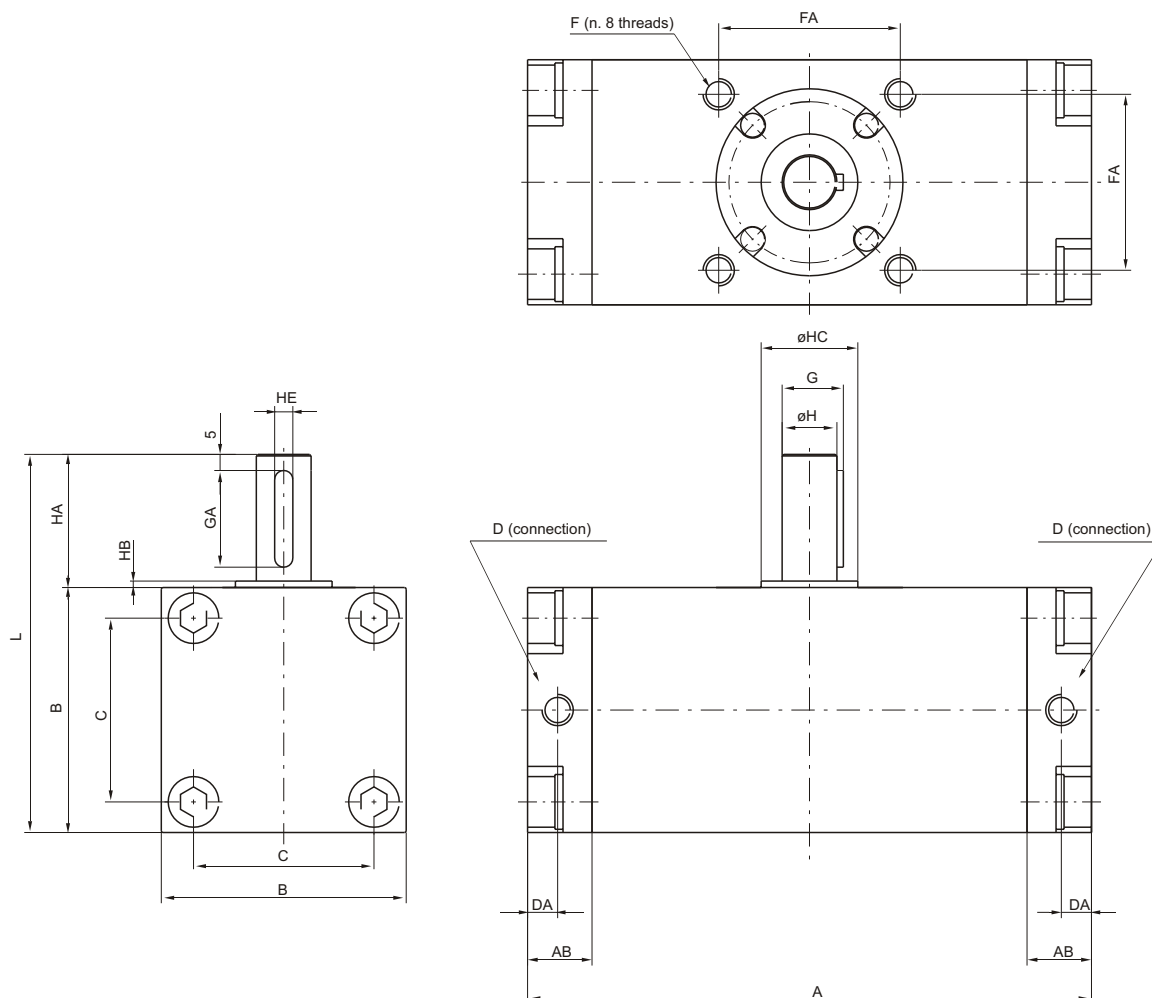
**NOTE :** Magnetic sensors see page 4.10

### Construction characteristics

Body	aluminium alloy
Piston	aluminium
End plate	aluminium
Piston seal	NBR rubber
Pinion	steel
Rack	steel

### Technical characteristics

Fluid	filtered and non lubricated air
Max. pressure	10 bar
Working temperature	-5°C ÷ +70°C



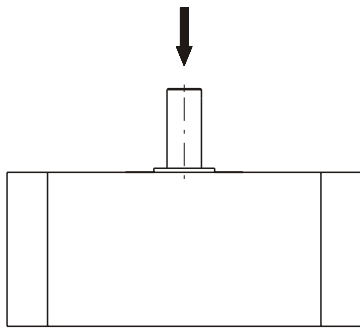
Bore	A	AB	B	C	D	DA	F	FA	G	GA	H	HA	HB	HC	HE	L	Weight (gr.)		
$\phi 50$	156	189	17	62	46	G1/8	8,5	M8x1,25 (useful depth h 8)	48	17	25	15	36	2,5	25	5 <sup>0</sup> <sub>-0,030</sub>	98	1500	1700
$\phi 50$	175	214	20	76	57	G1/8	10	M10x1,5 (useful depth h 12)	60	19,5	30	17	41	2,5	30	6 <sup>0</sup> <sub>-0,030</sub>	117	2500	3000
$\phi 50$	199	243	23,5	92	70	G1/4	12	M12x1,75 (useful depth h 13)	72	22,5	40	20	50	3	35	6 <sup>0</sup> <sub>-0,030</sub>	142	4300	5000
$\phi 50$	259	325	25	112	85	G3/8	12,5	M12x1,75 (useful depth h 14)	85	28	45	25	60	4	40	8 <sup>0</sup> <sub>-0,030</sub>	172	8500	9500
	90°	180°																90°	180°



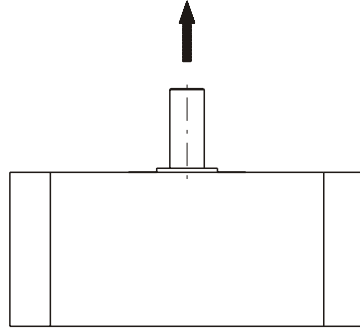
**Allowable Loads**

	Size			
	50	63	80	100
<b>Radial Load (N)</b>	200	300	400	600
<b>Compression Axial Load (N)</b>	500	600	900	1000
<b>Tensile Axial Load (N)</b>	200			

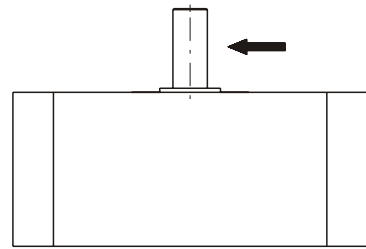
Compression Axial Load



Tensile Axial Load



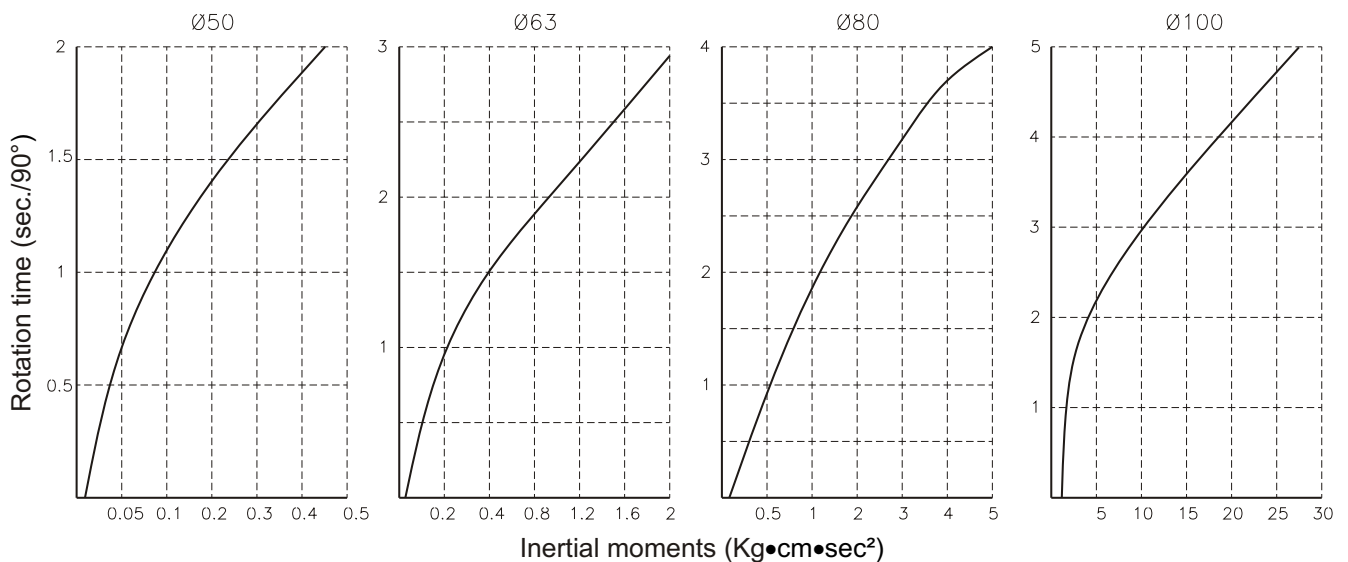
Radial Load



**Kinetic energy (cushioning angle 35°)**

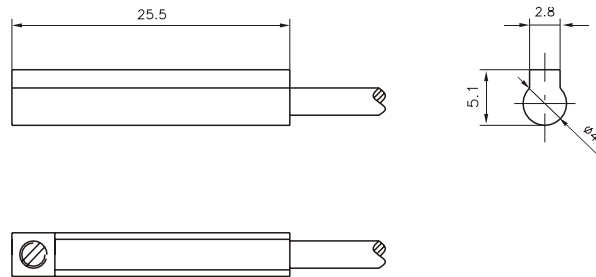
	Size			
	ø50	ø63	ø80	ø100
<b>Max Kinetic energy (Kg•cm)</b>	10	15	20	30

**Rotation time according to inertial moments**





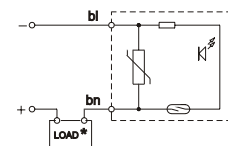
**Sensor c/w 1 m. Cable**



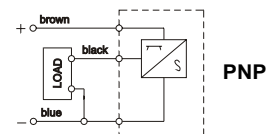
**Ordering codes**

<b>1581.U</b>	Reed bulb sensor with led and 1 m cable
<b>1581.HAP</b>	PNP sensor Hall effect with led and 1 m cable
<b>1581.HAN</b>	NPN sensor Hall effect with led and 1 m cable

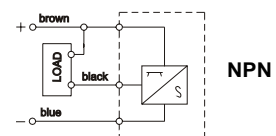
**Diagrams and connection**



With Reed bulb



PNP



NPN

Hall effect

**Technical characteristics**

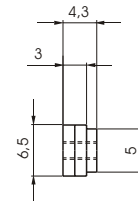
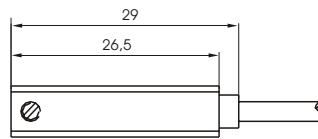
	1581.U	1581.HAP	1581.HAN
Type of contact	N.O.		
Maximum current	100mA	200mA	
Maximum permanent current	10W	6W	
Voltage range	5÷120VDC/AC	5 + 30V DC	
Working temperature	-10° C + 70°C		
Maximum voltage drop	/	0,5V	
Cable section	2, ø2,8	3,ø2,8	
Degree of protection	IP 67		



**Sensor c/w 2,5 m. cable**



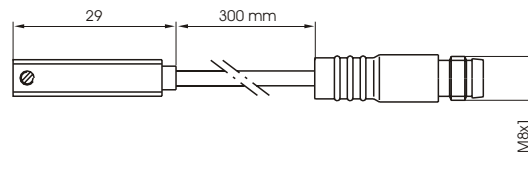
Weight gr. 27



**Sensor c/w M8 connector (300 mm cable)**



Weight gr. 15



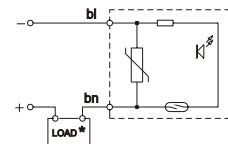
**Ordering codes**

<b>1580.U</b>	Reed bulb sensor with led and 2.5 m cable
<b>1580.HAP</b>	PNP sensor Hall effect with led and 2.5 m cable
<b>MRS.U</b>	Reed bulb sensor with led and connector
<b>MHS.P</b>	PNP sensor Hall effect with led and connector
<b>MC1</b>	M8 in line connector with 2.5 m cable (2 wires)
<b>MC2</b>	M8 in line connector with 5 m cable (2 wires)
<b>MCH1</b>	M8 in line connector with 2.5 m cable (3 wires)
<b>MCH2</b>	M8 in line connector with 5 m cable (3 wires)

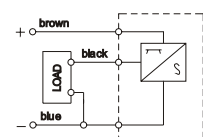
**Technical characteristics**

	1580.U	MRS.U	1580.HAP	MHS.P
Type of contact	N.O.			
Maximum current (pulses of 0.5 sec)	0,1A			0,2A
Maximum permanent current	0,1A			0,2A
Maximum permanent power	6VA			4W
Voltage range A.C.	3 ÷ 30V			/
Voltage range D.C.	3 ÷ 30V			12 ÷ 30V
Working temperature	-20° C + 70° C			
Maximum voltage drop	3V			
Cable section	2x0,14			3x0,14
Degree of protection	IP 65			
Connecting time	0,5 ms			0,8 µs
Disconnecting time	0,1 ms			0,3 µs
Average working period	10 <sup>7</sup>			10 <sup>9</sup>
Repetition of intervention point	± 0,1			

**Diagrams and connection**



With Reed bulb



Hall effect

**NOTE: Pay attention to the connected loads which should not exceed recommendations**

**\*Reed bulb sensor: connection can be done either to negative or positive pole**