

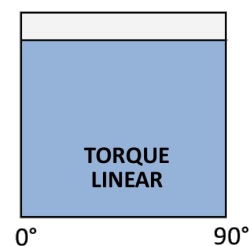
Design	Pneumatic double-piston rotary actuator in rack and pinion design
Function	Double- and single-acting execution
Standards	Interface actuator/feedback-unit - VDI/VDE 3845 (NAMUR) Interface actuator/control media - VDI/VDE 3845 (NAMUR) Interface actuator/valve - ISO5211 / DIN 3337
Temperature range	Standard: -20°C ... +80°C Low temperature version: -40°C ... +80°C High temperature version: -10°C ... +150°C
Nominal angle	90°
Angle adjustment	Adjustable in both end positions +/-5° Optional stroke adjustment up to 100%
ATEX marking	  II 2 G Ex h IIC T6...T3 Gb II 2 D Ex h IIIC 170°C Db
Control Pressure	2 up to 8 bar
Control media	dry, filtered air or inert gases in respect of remaining oil-, dust and water-content according to DIN ISO 8573-1 / class 4, maximum particle diameter 30µm, dew point minimum 10°C below ambient temperature
Material	Body: Aluminium, powder-coated Caps: Aluminium, powder-coated Pistons: Aluminium Pinion shaft: Carbon steel, nickel plated Bearings: POM Sealings: Standard: NBR Optional: HNBR/FPM/Silicone Screws: Stainless steel



Torque diagram

Double-acting

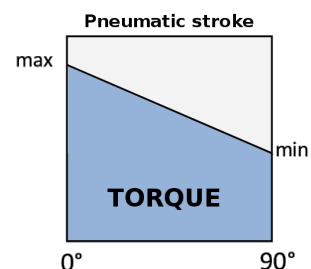
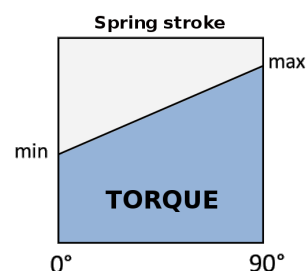
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



Single-acting

Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions.

Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.

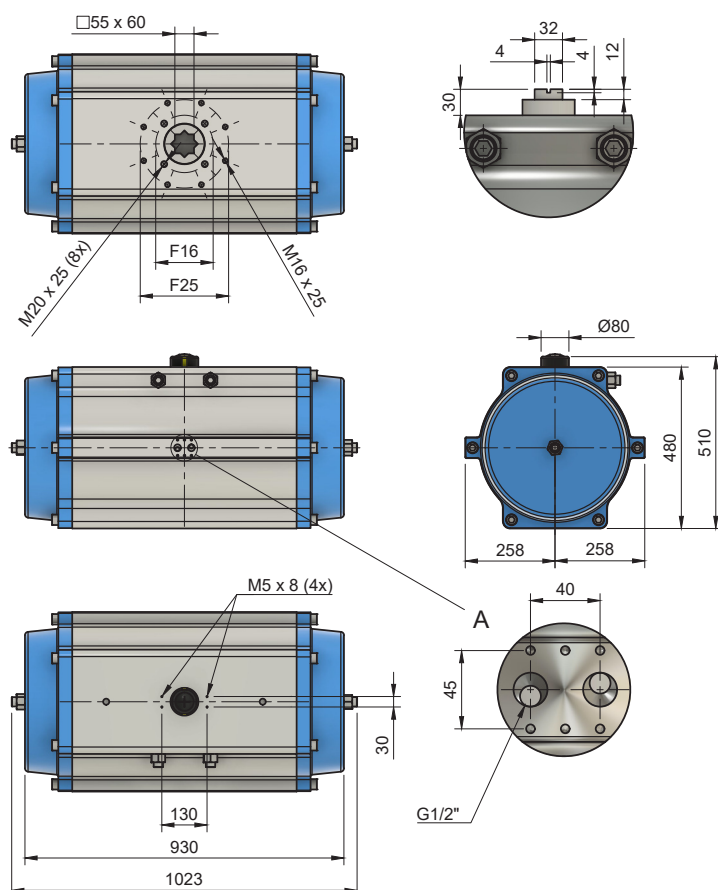


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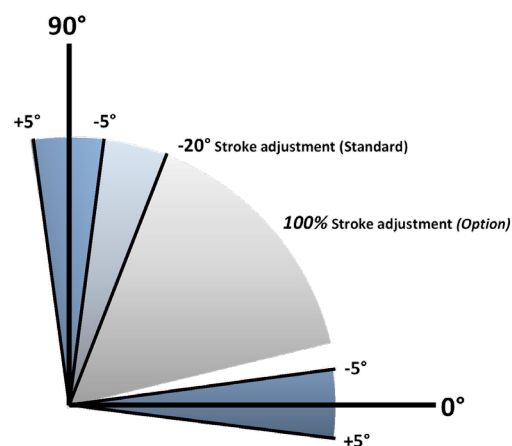
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Dimensions



Angle adjustment



Both end positions can be adjusted by $\pm 5^\circ$ for a precise setting of the final valve position.

The optional stroke adjustment offers a 100% setting of the switched end position.

Torques double-acting

Control pressure in bar (g)	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8
Torque in Nm	3256	4069	4883	5696	6510	7323	8137	8950	9764	10577	11391	12204	13018

Torques single-acting

Torque spring stroke in Nm		Control pressure in bar (g)																			
		3		3,5		4		4,5		5		5,5		6		7		8			
Spring set		max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min
Torque in Nm	5	2056	1311	3423	2596																
	6	2468	1574	3132	2139	3949	2953														
	7	2880	1837	2841	1682	3657	2496	4471	3310												
	8	3292	2100	2550	1225	3365	2039	4179	2853	4993	3667										
	9	3703	2362	2259	768	3073	1582	3887	2396	4701	3210	5515	4024								
	10	4115	2624	1967	311	2781	1125	3595	1939	4409	2753	5223	3567	6036	4381						
	11	4526	2887			2489	668	3303	1482	4117	2296	4931	3110	5745	3924	6559	4738				
	12	4938	3149					3012	1025	3826	1839	4640	2653	5454	3467	6268	4281	7895	5908	9523	7536
	13	5349	3412							3534	1381	4348	2195	5162	3009	5976	3823	7603	5450	9231	7078
	14	5761	3674							3243	924	4057	1738	4871	2552	5685	3366	7312	4993	8940	6621
	15	6172	3937									3765	1281	4579	2095	5393	2909	7020	4536	8648	6164
	16	6584	4199									3473	824	4287	1638	5101	2452	6728	4079	8356	5707

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	289,0	108,6
single-acting	360,0	52,6

Air consumption

Function	Air consumption for pivoting angle 90° at control pressure in bar (g) in litres/cycle								
	3	3,5	4	4,5	5	5,5	6	7	8
double-acting	325,8	380,1	434,4	488,7	543,0	597,3	651,6	760,2	868,8
single-acting	157,8	184,1	210,4	236,7	263,0	289,3	315,6	368,2	420,8