


PR587

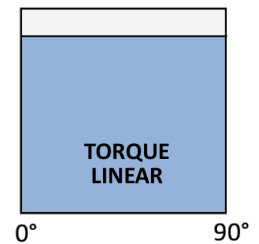
Design	Pneumatic double-piston rotary actuator in rack and pinion design
Function	Double- and single-acting execution
Standards	Interface actuator/feedback-unit - VDI/VDE 3845 (NAMUR) Interface actuator/control media - VDI/VDE 3845 (NAMUR) Interface actuator/valve - ISO5211 / DIN 3337
Temperature range	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

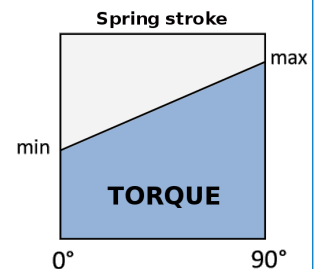
Double-acting

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

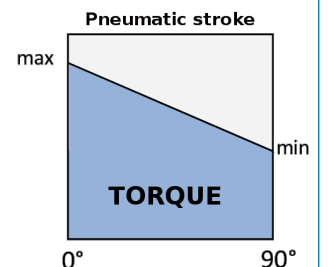


Single-acting

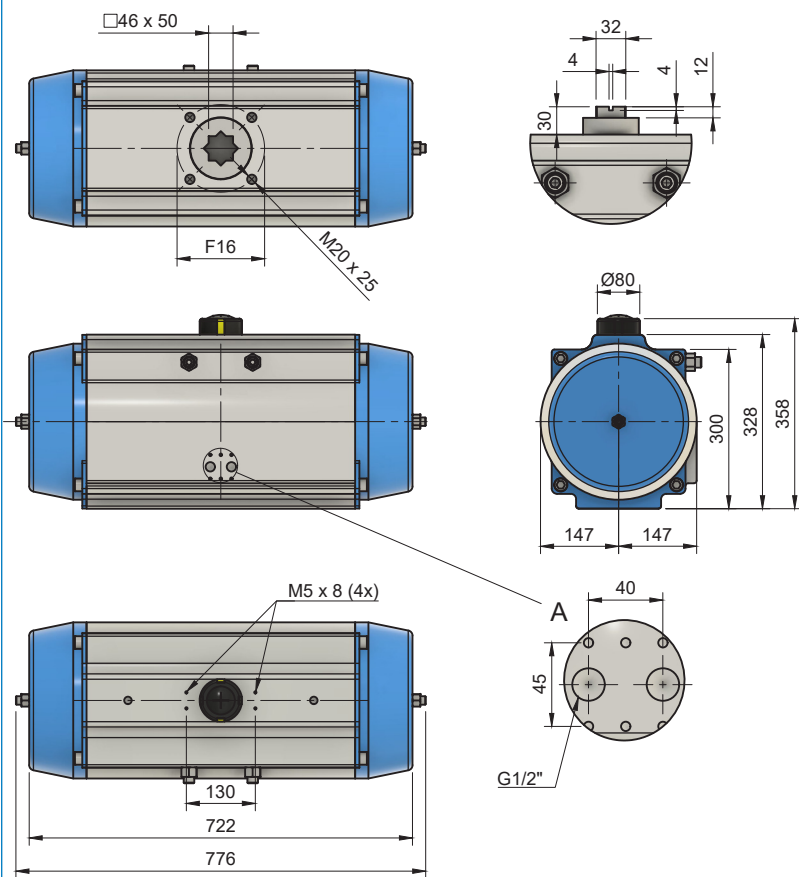
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions.



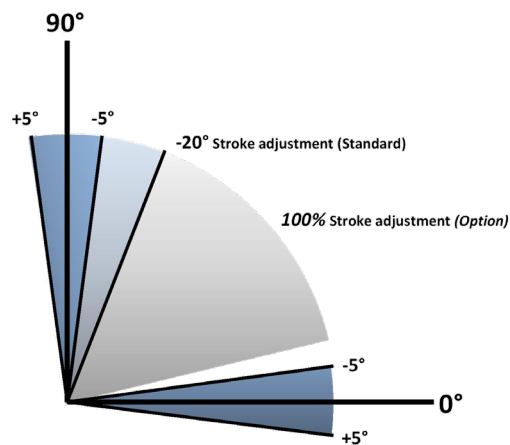
Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



Dimensions



Angle adjustment



Both end positions can be adjusted by +/-5° 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	1174	1468	1761	2055	2348	2642	2935	3229	3522	3816	4109	4403	4696

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	787	560	1195	968	1487	1260	1779	1552												
	6	943	672	1083	811	1375	1104	1667	1396	1960	1689	2252	1981								
	7	1101	783	972	654	1264	946	1556	1238	1849	1531	2141	1823								
	8	1258	895	860	497	1152	789	1444	1081	1737	1374	2029	1666	2322	1959	2614	2252	3199	2836		
	9	1416	1007			1040	630	1332	923	1625	1216	1917	1509	2210	1802	2502	2094	3087	2678		
	10	1572	1119					1220	767	1513	1060	1805	1352	2098	1645	2390	1937	2974	2521	3560	3107
	11	1730	1231							1220	767	1693	1194	1986	1487	2278	1779	2862	2364	3448	2949
12	1887	1342									1582	1037	1875	1330	2167	1623	2751	2207	3336	2792	

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	97,0	31,0
single-acting	118,0	17,0

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	93,0	108,5	124,0	139,5	155,0	170,5	186,0	217,0	248,0
single-acting	51,0	59,5	68,0	76,5	85,0	93,5	102,0	119,0	136,0