



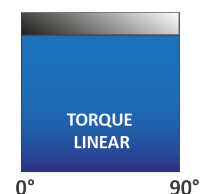
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone
	Screws	Stainless steel
Temperature range	Standard	-20°C...+80°C
	Low temperature version	-40°C...+80°C
	High temperature version	-10°C...+150°C
ATEX marking	CE	II 2 G Ex h IIC T6...T3 Gb II 2 D Ex h IIIC 170°C Db
Control pressure	2...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	
Mounting position	Any mounting position	
Nominal rotation angle	90° Adjustable in both end positions +/-5° (optional stroke adjustment up to 100%)	
Standards	Interface actuator/ feedback-unit	VDI/VDE 3845 resp. NAMUR
	Interface actuator/ control media	VDI/VDE 3845 resp. NAMUR
	Interface actuator/ valve	ISO 5211 and DIN 3337



Torque diagram

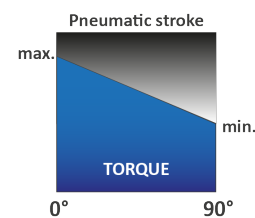
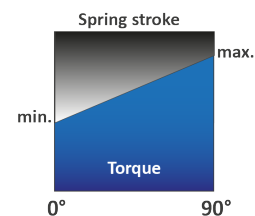
Double-acting

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

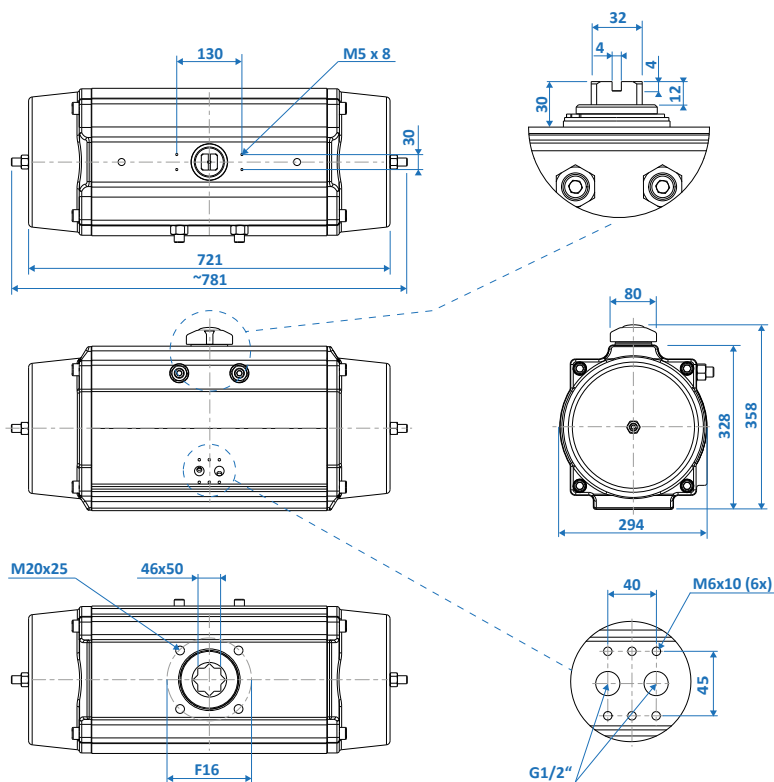


Single-acting

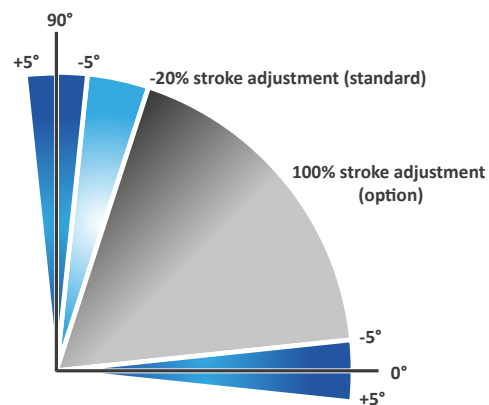
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



Dimensions



Angle adjustment



Both end positions can be adjusted by $\pm 5^\circ$ 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	7	8
Torque in Nm	1162	1453	1743	2034	2324	2615	2905	3196	3486	4067	4648

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	
				min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
Spring set	max.	min.																			
Torque in Nm	5	864	596	1147	879	1438	1169	1728	1460	2019	1750	2309	2041	2600	2331	2890	2622	3471	3203	4052	3783
	6	1037	715	1028	706	1319	996	1609	1287	1900	1577	2190	1868	2481	2158	2771	2449	3352	3030	3933	3611
	7	1210	834	909	533	1200	824	1490	1114	1781	1404	2071	1695	2362	1985	2652	2276	3233	2857	3814	3438
	8	1383	953	790	360	1081	651	1371	941	1661	1232	1952	1522	2242	1813	2533	2103	3114	2684	3695	3265
	9	1555	1072			961	478	1252	768	1542	1059	1833	1349	2123	1640	2414	1930	2995	2511	3576	3092
	10	1728	1191			842	305	1133	596	1423	886	1714	1176	2004	1467	2295	1757	2876	2338	3457	2919
	11	1901	1310					1014	423	1304	713	1595	1004	1885	1294	2176	1585	2757	2166	3338	2746
	12	2074	1429					895	250	1185	540	1476	831	1766	1121	2057	1412	2637	1993	3218	2574

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