



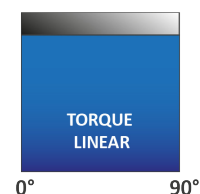
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone
	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	  II 2 G Ex h IIC T6...T3 Gb II 2 D Ex h IIC 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

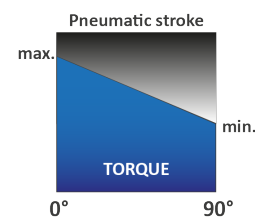
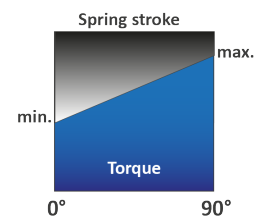
Double-acting

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

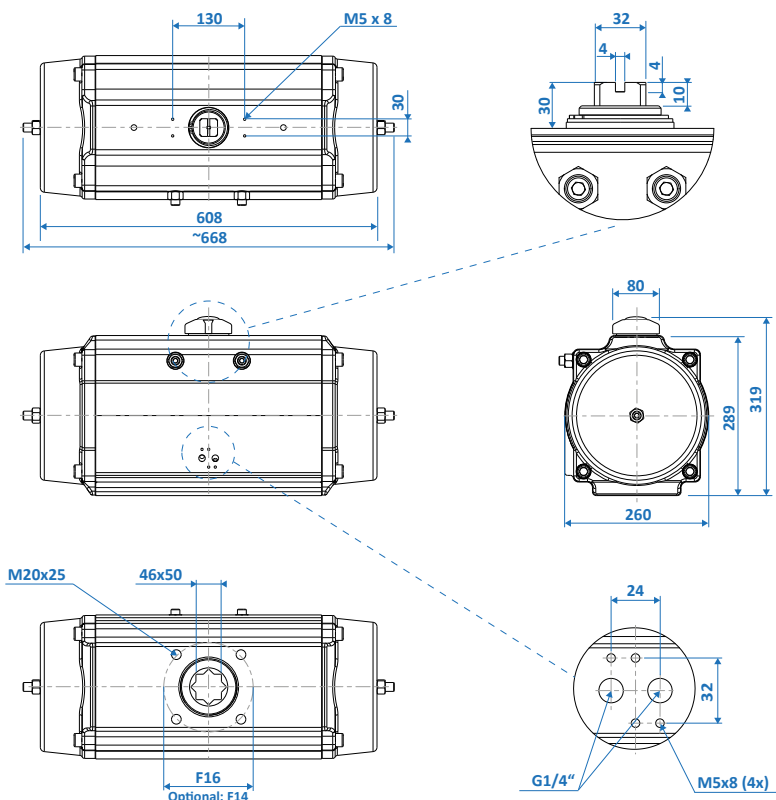


Single-acting

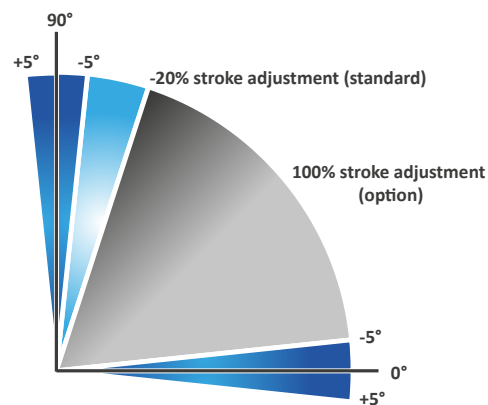
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	765	956	1148	1339	1530	1721	1913	2104	2295	2678	3060

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	
				max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
Spring set																					
Torque in Nm	5	554	410	744	600	937	793	1129	985	1322	1178	1514	1370	1706	1562	1898	1754	2283	2139	2668	2524
	6	665	492	662	489	855	682	1047	874	1240	1067	1432	1259	1624	1451	1816	1643	2201	2028	2586	2413
	7	775	575	580	379	772	572	964	764	1157	957	1349	1149	1541	1341	1733	1533	2118	1918	2503	2303
	8	886	656	498	268	691	461	883	653	1075	845	1267	1037	1460	1230	1652	1422	2037	1807	2422	2192
	9	998	739			608	350	800	542	993	734	1185	926	1377	1119	1569	1311	1954	1696	2339	2080
	10	1108	821					718	431	911	624	1103	816	1296	1009	1488	1201	1872	1586	2257	1970
	11	1219	903							829	513	1021	705	1214	898	1406	1090	1791	1474	2176	1859
	12	1330	985									939	594	1131	787	1323	979	1708	1363	2093	1748

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	67,0	20,0
single-acting	80,0	11,0

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	60,0	70,0	80,0	90,0	100,0	110,0	120,0	140,0	160,0
single-acting	33,0	38,5	44,0	49,5	55,0	60,5	66,0	77,0	88,0