



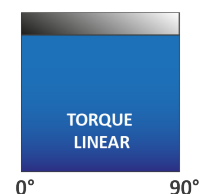
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone
	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 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

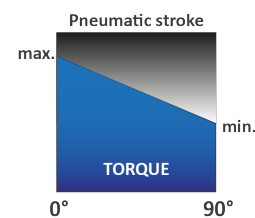
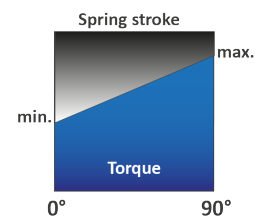
Double-acting

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

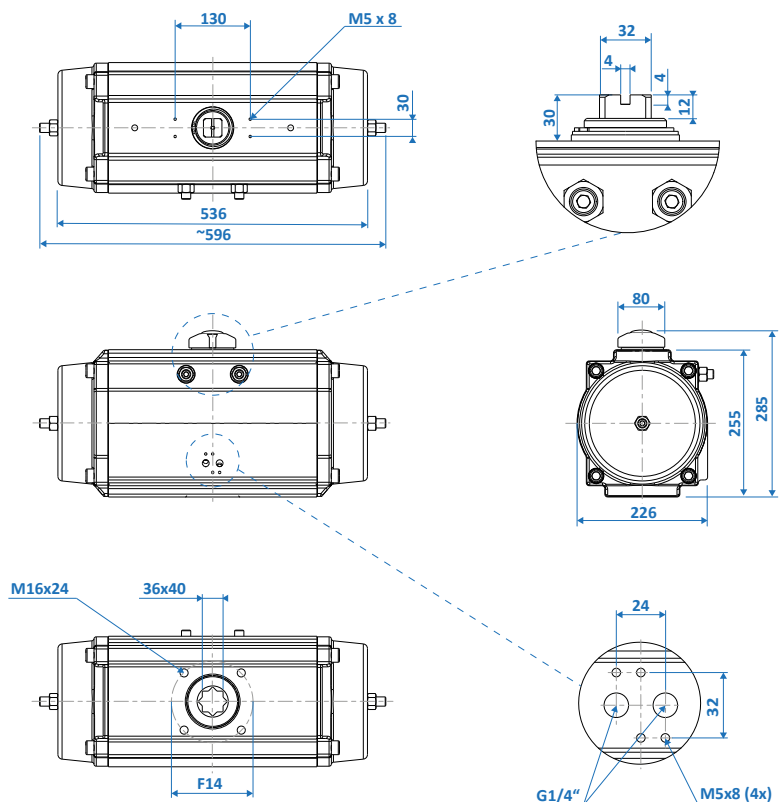


Single-acting

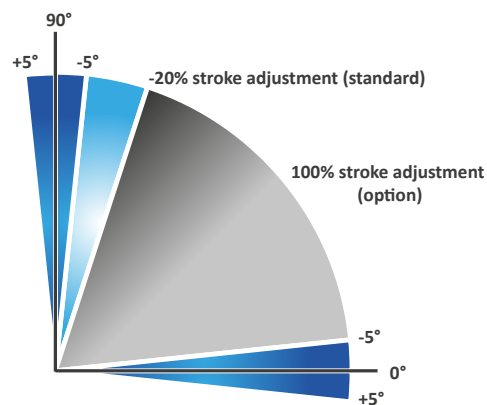
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	521	651	781	911	1041	1171	1302	1432	1562	1822	2082

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		max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
Torque in Nm	5	380	275	523	418	656	551	789	684	922	817	1055	950	1188	1083	1321	1216	1587	1482	1853	1748
	6	456	330	468	342	601	475	734	608	867	741	1000	874	1133	1007	1266	1140	1532	1406	1798	1672
	7	532	385	413	266	546	399	679	532	812	665	945	798	1078	931	1211	1064	1477	1330	1743	1596
	8	608	440	358	190	491	323	624	456	757	589	890	722	1023	855	1156	988	1422	1254	1688	1520
	9	684	495			436	247	569	380	702	513	835	646	968	779	1101	912	1367	1178	1633	1444
	10	760	550					514	304	647	437	780	570	913	703	1046	836	1312	1102	1578	1368
	11	836	605							592	361	725	494	858	627	991	760	1257	1026	1523	1292
	12	912	660									670	418	803	551	936	684	1202	950	1468	1216

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	47,0	15,0
single-acting	55,0	7,5

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	45,0	52,5	60,0	67,5	75,0	82,5	90,0	105,0	120,0
single-acting	22,5	26,3	30,0	33,8	37,5	41,3	45,0	52,5	60,0