



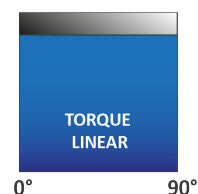
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone
Temperature range	Screws	Stainless steel
	Standard	-20°C...+80°C
	Low temperature version	-40°C...+80°C
Temperature range	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

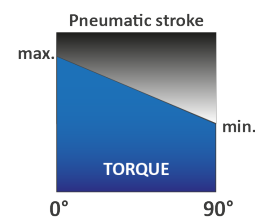
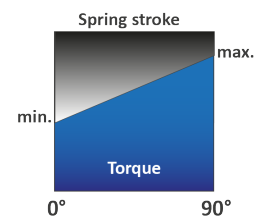
Double-acting

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

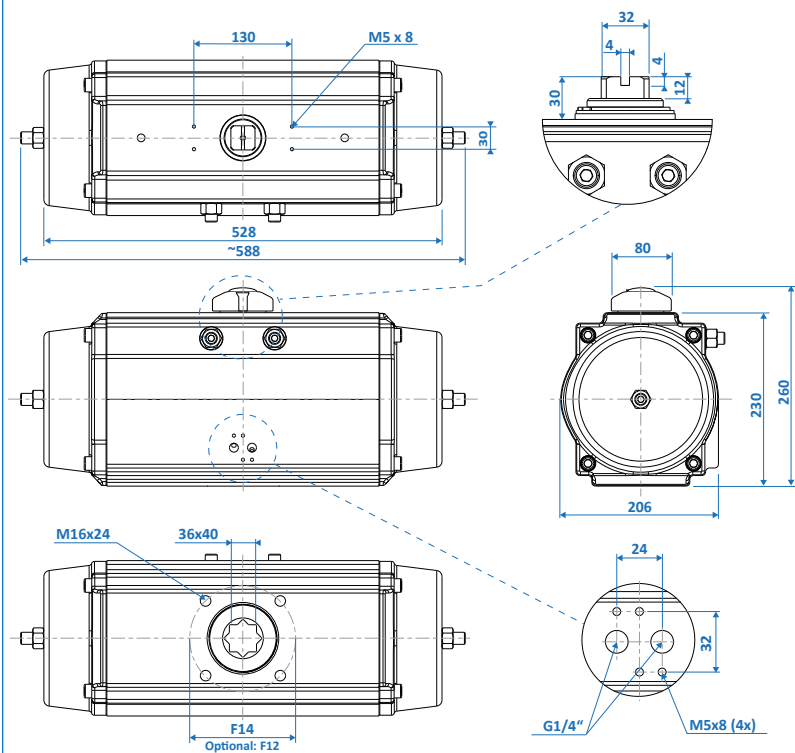


Single-acting

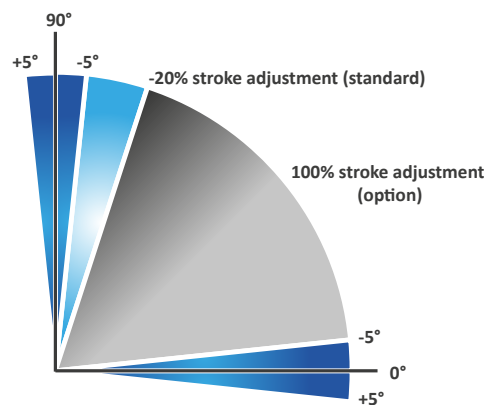
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	426	533	639	746	852	959	1066	1172	1279	1492	1705

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.																			
Torque in Nm	5	317	218	421	322	528	429	634	536	741	642	847	749	954	855	1060	962	1274	1175	1487	1388
	6	380	262	377	259	484	366	590	472	697	579	804	685	910	792	1017	898	1230	1112	1443	1325
	7	444	306	334	196	440	302	547	409	653	515	760	622	866	728	973	835	1186	1048	1399	1261
	8	507	350	290	132	396	239	503	345	610	452	716	559	823	665	929	772	1142	985	1356	1198
	9	571	393			353	175	459	282	566	389	672	495	779	602	886	708	1099	921	1312	1135
	10	634	437			309	112	416	219	522	325	629	432	735	538	842	645	1055	858	1268	1071
	11	697	481					372	155	479	262	585	368	692	475	798	581	1011	795	1225	1008
	12	761	524					328	92	435	198	541	305	648	411	755	518	968	731	1181	944

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	31,0	11,3
single-acting	35,0	5,9

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	33,9	39,6	45,2	50,9	56,5	62,2	67,8	79,1	90,4
single-acting	17,7	20,7	23,6	26,6	29,5	32,5	35,4	41,3	47,2