



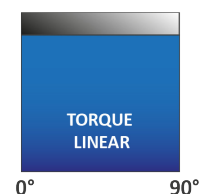
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone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

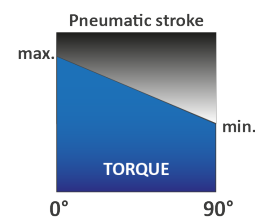
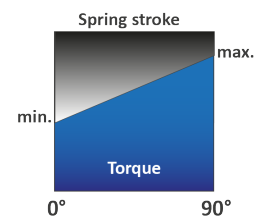
Double-acting

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

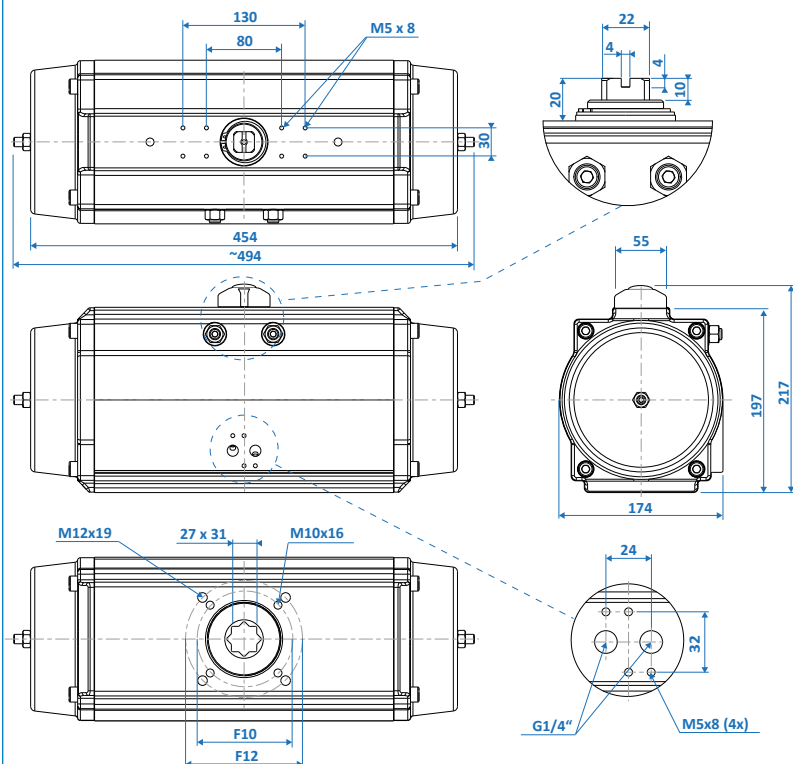


Single-acting

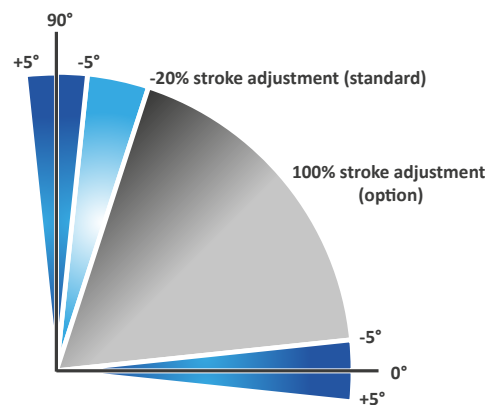
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	264	331	397	463	529	595	661	727	793	925	1058

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	197	136	261	200	327	266	393	332	459	398	525	464	592	530	658	597	790	729	922	861
	6	236	163	234	161	300	227	366	293	432	359	498	425	564	491	631	557	763	689	895	822
	7	275	190	207	121	273	187	339	253	405	320	471	386	537	452	603	518	736	650	868	782
	8	315	217	180	82	246	148	312	214	378	280	444	346	510	412	576	478	709	611	841	743
	9	354	244			219	109	285	175	351	241	417	307	483	373	549	439	681	571	814	704
	10	393	271			192	69	258	135	324	202	390	268	456	334	522	400	654	532	787	664
	11	433	298					231	96	297	162	363	228	429	294	495	360	627	493	759	625
	12	472	325					203	57	270	123	336	189	402	255	468	321	600	453	732	586

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	20,0	6,9
single-acting	24,0	3,7

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	20,7	24,2	27,6	31,1	34,5	38,0	41,4	48,3	55,2
single-acting	11,1	13,0	14,8	16,7	18,5	20,4	22,2	25,9	29,6