



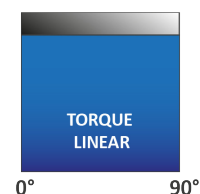
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone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

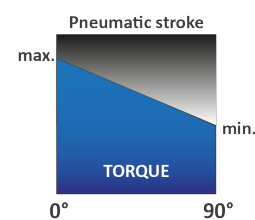
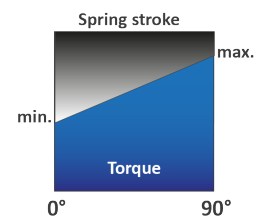
Double-acting

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

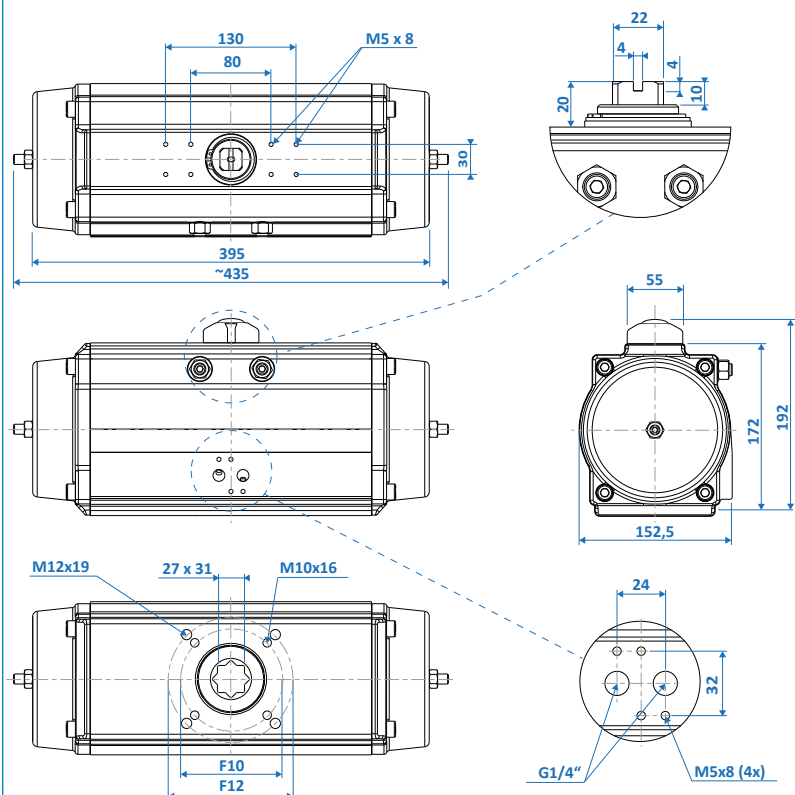


Single-acting

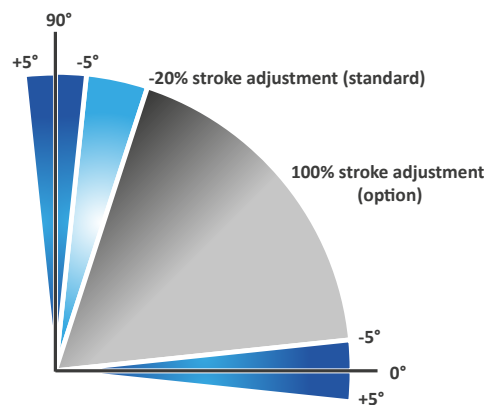
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	174	217	260	304	347	390	434	477	521	607	694

Torques single-acting

				Control pressure in bar (g)																	
Torque spring stroke in Nm				3		3,5		4		4,5		5		5,5		6		7		8	
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	129	89	171	131	215	175	258	218	302	261	345	305	388	348	432	391	518	478	605	565
	6	155	107	154	105	197	149	240	192	284	235	327	279	371	322	414	366	501	452	587	539
	7	181	124	136	80	179	123	223	166	266	210	309	253	353	296	396	340	483	427	570	513
	8	207	142	118	54	162	97	205	140	248	184	292	227	335	271	378	314	465	401	552	487
	9	232	160			144	71	187	115	231	158	274	201	317	245	361	288	447	375	534	462
	10	258	178			126	45	169	89	213	132	256	176	300	219	343	262	430	349	516	436
	11	284	195					152	63	195	106	238	150	282	193	325	236	412	323	499	410
	12	310	213					134	37	177	81	221	124	264	167	307	211	394	297	481	384

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	13,0	4,7
single-acting	15,0	2,5

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	14,10	16,45	18,80	21,15	23,50	25,85	28,20	32,90	37,60
single-acting	7,50	8,75	10,00	11,25	12,50	13,75	15,00	17,50	20,00