



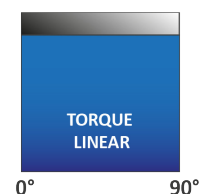
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone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

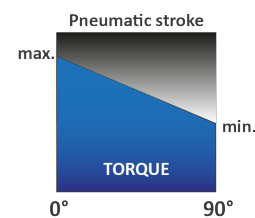
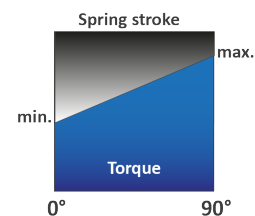
Double-acting

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

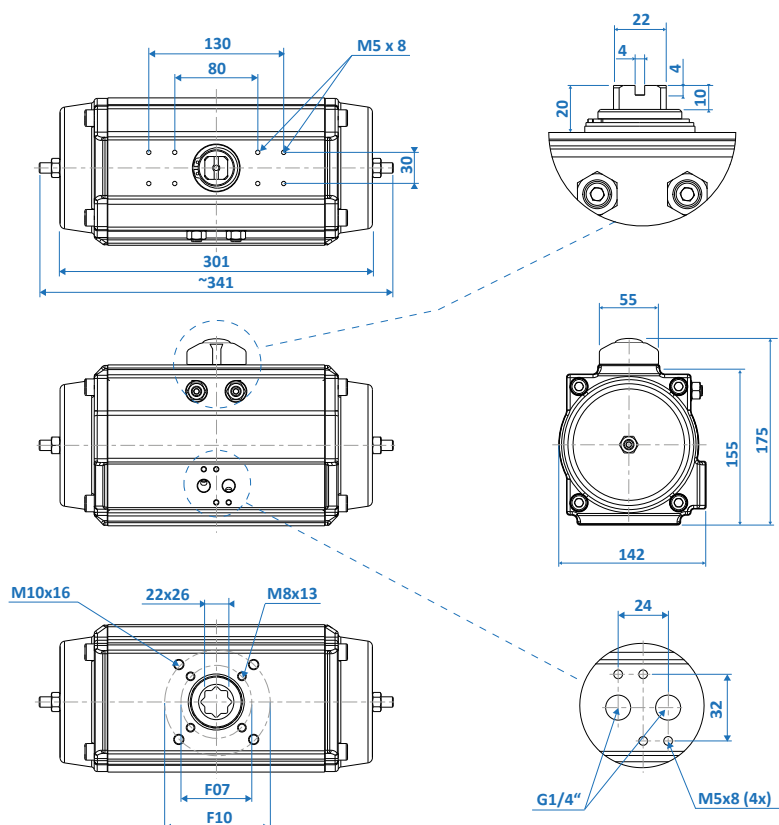


Single-acting

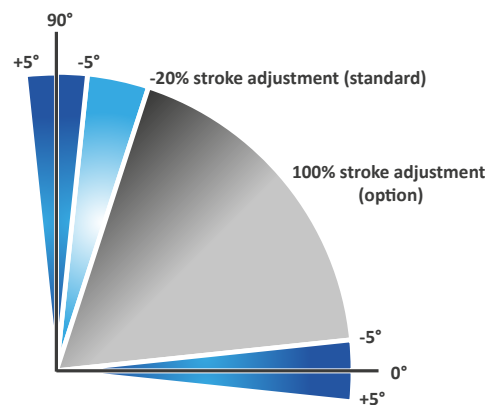
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	101	127	152	178	203	228	254	279	304	355	406

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	
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	75	52	100	77	126	102	151	127	176	153	202	178	227	204	252	229	303	280	354	330
	6	91	62	90	62	115	87	140	112	166	138	191	163	217	188	242	214	293	265	343	315
	7	106	73	79	47	105	72	130	97	155	123	181	148	206	173	232	199	282	249	333	300
	8	121	83	69	31	94	57	120	82	145	108	170	133	196	158	221	184	272	234	323	285
	9	136	94			84	42	109	67	135	92	160	118	185	143	211	169	261	219	312	270
	10	151	104			74	27	99	52	124	77	150	103	175	128	200	153	251	204	302	255
	11	166	114					88	37	114	62	139	88	165	113	190	138	241	189	291	240
	12	181	125					78	22	103	47	129	73	154	98	180	123	230	174	281	225

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	8,9	3,0
single-acting	10,1	1,6

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	9,00	10,50	12,00	13,50	15,00	16,50	18,00	21,00	24,00
single-acting	4,80	5,60	6,40	7,20	8,00	8,80	9,60	11,20	12,80