



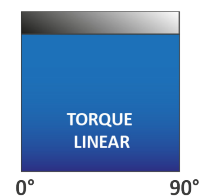
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone
	Screws	Stainless steel
Temperature range	Standard	-20°C ... +80°C
	Low temperature	-40°C ... +80°C
	High temperature	-10°C ... +150°C
ATEX marking	CE Ex Standard and low temperature II 2 G Ex h IIC T6/T5 Gb II 2 D Ex h IIIC 100°C Db High temperature 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

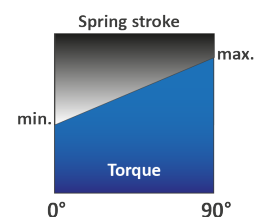
Double-acting

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

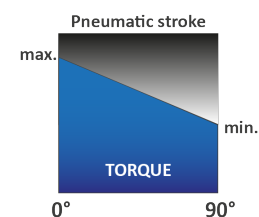


Single-acting

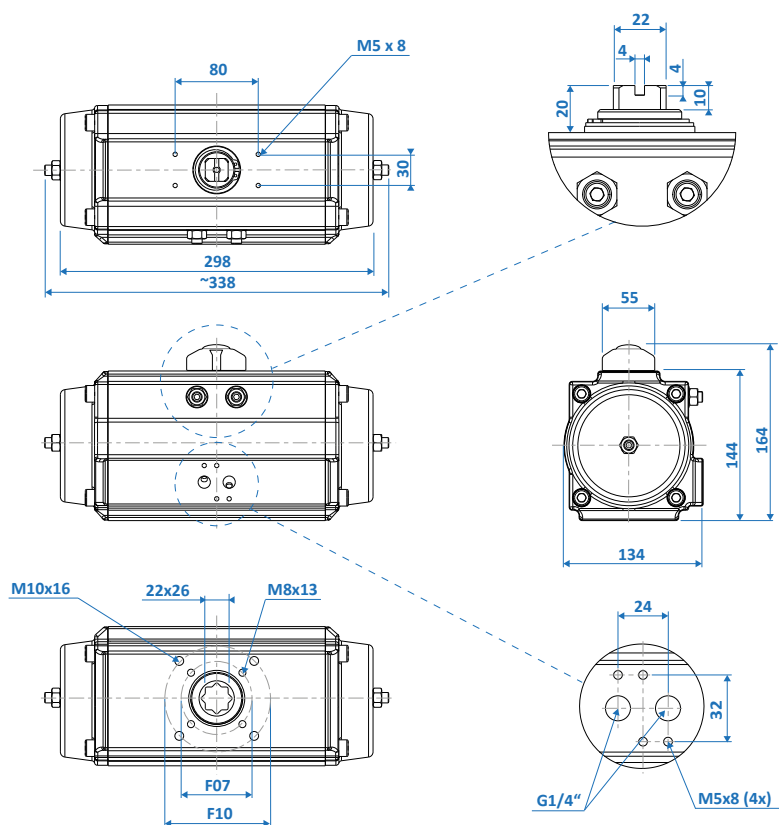
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions.



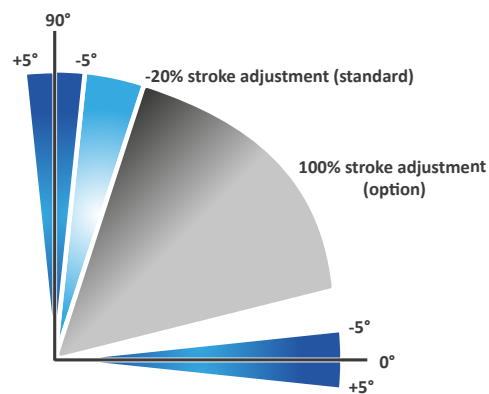
Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	86	108	130	151	173	194	216	238	259	302	346

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	
Torque in Nm	Spring set			max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
	5	65	43	87	65	108	86	130	108	151	129	173	151	194	172	216	194	259	237	302	280
	6	78	52	78	52	99	73	121	95	142	116	164	138	186	160	207	181	250	224	293	267
	7	91	61	69	39	90	60	112	82	133	103	155	125	177	147	198	168	241	211	284	254
	8	104	69	61	26	82	47	104	69	125	90	147	112	169	134	190	155	233	198	276	254
	9	117	78			73	34	95	56	116	77	138	99	160	121	181	142	224	185	259	228
	10	130	87			64	21	86	43	107	64	129	86	151	108	172	129	215	172	259	216
	11	143	95							99	51	121	73	143	95	164	116	207	159	251	203
	12	156	104							90	38	112	60	134	82	156	104	198	146	242	190

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	8,18	2,5
single-acting	9,3	1,3