



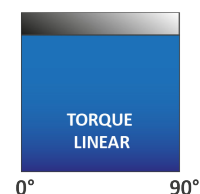
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone
Temperature range	Screws	Stainless steel
	Standard	-20°C...+80°C
	Low temperature version	-40°C...+80°C
ATEX marking	High temperature version	-10°C...+150°C
	CE	II 2 G Ex h IIC T6...T3 Gb II 2 D Ex h IIC 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

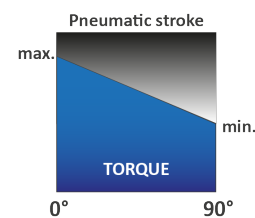
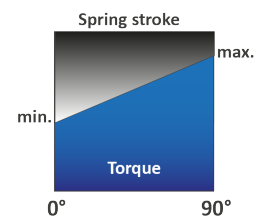
Double-acting

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

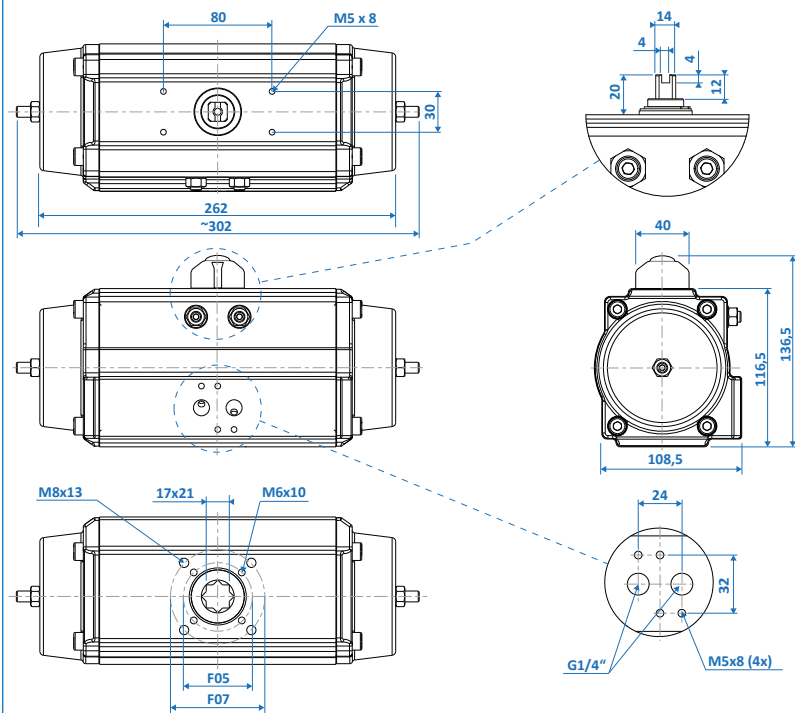


Single-acting

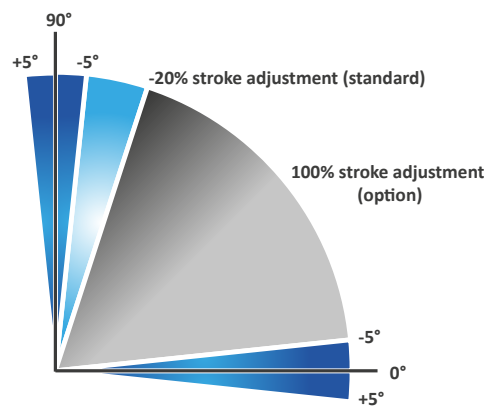
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	45	56	67	79	90	101	112	124	135	157	180

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	33	23	44	34	56	45	67	56	78	68	89	79	101	90	112	101	134	124	157	146
	6	40	28	40	27	51	39	62	50	73	61	85	72	96	83	107	95	130	117	152	140
	7	47	32	35	21	46	32	58	43	69	54	80	66	91	77	103	88	125	110	147	133
	8	54	37	31	14	42	25	53	36	64	48	75	59	87	70	98	81	120	104	143	126
	9	60	41	26	7	37	18	48	30	60	41	71	52	82	63	93	75	116	97	138	120
	10	67	46			33	12	44	23	55	34	66	45	77	57	89	68	111	90	134	113
	11	74	51					39	16	50	28	62	39	73	50	84	61	107	84	129	106
	12	80	55					35	10	46	21	57	32	68	43	80	55	102	77	124	99

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	4,6	1,37
single-acting	5,2	0,64

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	4,11	4,80	5,48	6,17	6,85	7,54	8,22	9,59	10,96
single-acting	1,92	2,24	2,56	2,88	3,20	3,52	3,84	4,48	5,12