



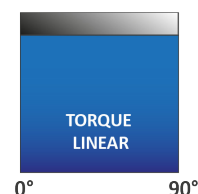
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body	Aluminum, powder-coated
	Caps	Aluminum, powder-coated
	Pistons	Aluminum
	Pinion shaft	Carbon steel, nickel plated
	Bearings	POM
	Sealings	Standard: NBR Optional: HNBR/FPM/Silicone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

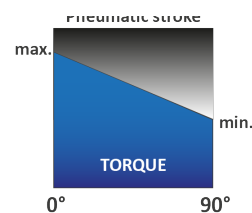
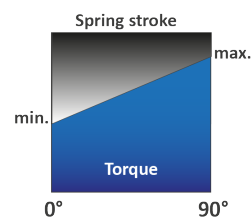
Double-acting

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

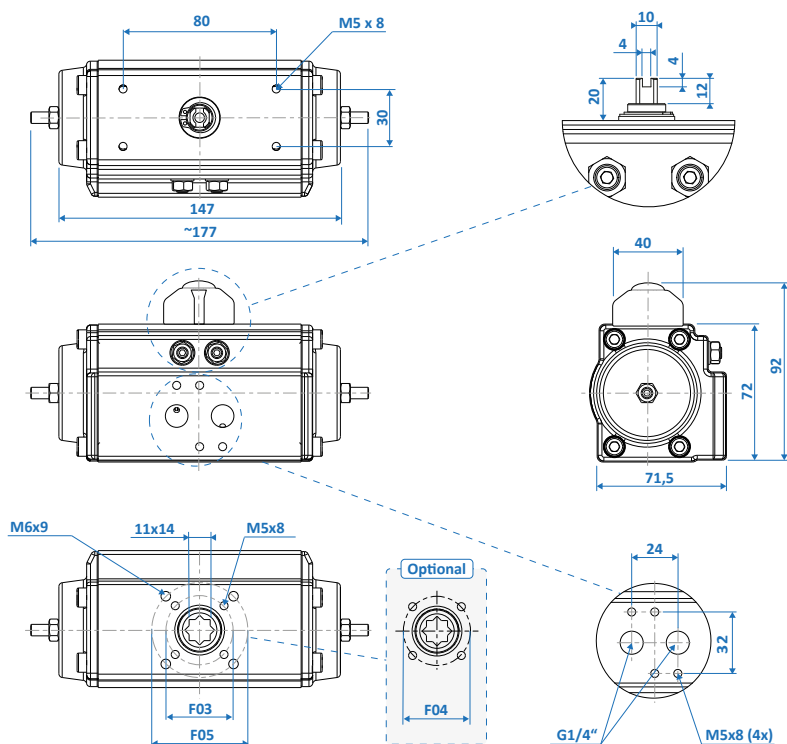


Single-acting

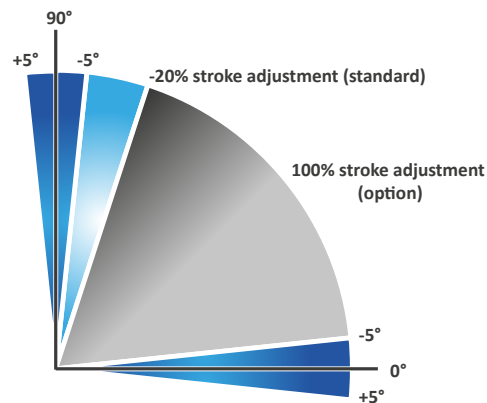
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	8	10	12	14	16	18	20	22	24	28	32

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	5,9	4,1	7,9	6,1	9,9	8	11,9	10	13,9	12	15,9	14	17,9	16	19,9	18	23,9	22	27,9	26
	6	7,1	4,9	7,1	4,9	9,1	6,9	11,1	8,9	13,1	10,9	15,1	12,9	17,1	14,9	19,1	16,8	23,1	20,8	27,1	24,8
	7	8,3	5,7	6,3	3,7	8,3	5,7	10,3	7,7	12,3	9,7	14,3	11,7	16,3	13,7	18,3	15,7	22,2	19,7	26,2	23,7
	8	9,5	6,5	5,4	2,5	7,4	4,5	9,4	6,5	11,4	8,5	13,4	10,5	15,4	12,5	17,4	14,5	21,4	18,5	25,4	22,5
	9	10,7	7,4	4,6	1,3	6,6	3,3	8,6	5,3	10,6	7,3	12,6	9,3	14,6	11,3	16,6	13,3	20,6	17,3	24,6	21,3
	10	11,9	8,2			5,8	2,1	7,8	4,1	9,8	6,1	11,8	8,1	13,8	10,1	15,8	12,1	19,8	16,1	23,8	20,1
	11	13,1	9					7	2,9	9	4,9	11	6,9	13	8,9	15	10,9	19	14,9	23	18,9
	12	14,2	9,8					6,2	1,7	8,2	3,7	10,2	5,7	12,2	7,7	14,2	9,7	18,2	13,7	22,2	17,7

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	1,4	0,28
single-acting	1,5	0,12

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	0,84	0,98	1,12	1,26	1,40	1,54	1,68	1,96	2,24
single-acting	0,36	0,42	0,48	0,54	0,60	0,66	0,72	0,84	0,96