

PR015

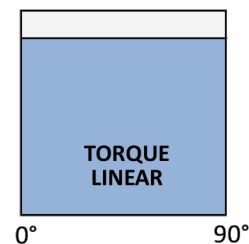
Design	Pneumatic double-piston rotary actuator in rack and pinion design
Function	Double- and single-acting execution
Standards	Interface actuator/feedback-unit - VDI/VDE 3845 (NAMUR) Interface actuator/control media - VDI/VDE 3845 (NAMUR) Interface actuator/valve - ISO5211 / DIN 3337
Temperature range	Standard: -20°C ... +80°C Low temperature version: -40°C ... +80°C High temperature version: -10°C ... +150°C
Nominal angle	90°
Angle adjustment	Adjustable in both end positions +/-5° Optional stroke adjustment up to 100%
ATEX marking	CE  II 2 G Ex h IIC T6...T3 Gb II 2 D Ex h IIIC 170°C Db
Control Pressure	2 up to 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
Material	Body: Aluminium, powder-coated Caps: Aluminium, powder-coated Pistons: Aluminium Pinion shaft: Carbon steel, nickel plated Bearings: POM Sealings: Standard: NBR Optional: HNBR/FPM/Silicone Screws: Stainless steel



Torque diagram

Double-acting

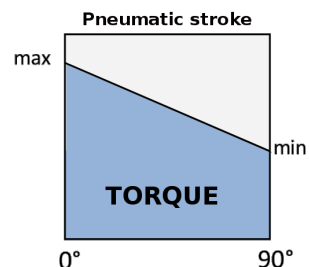
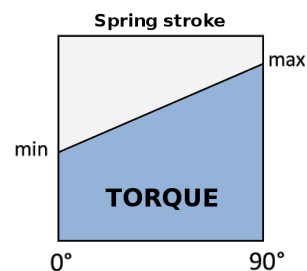
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



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.

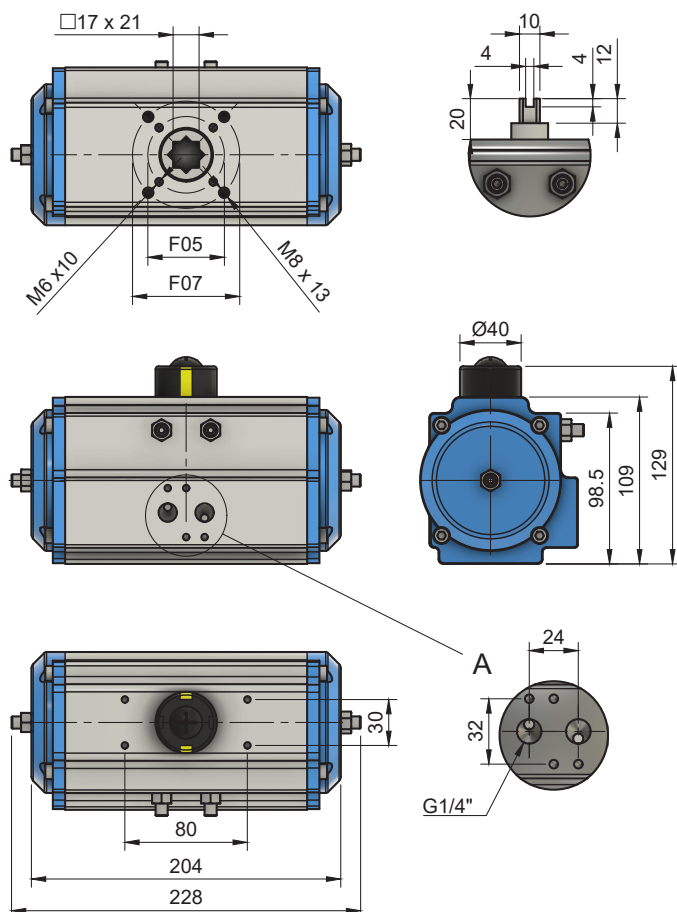


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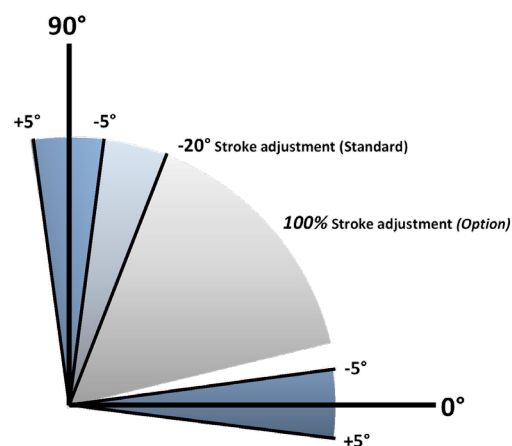
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Dimensions



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	6,5	7	7,5	8
Torque in Nm	30,8	38,5	46,2	53,9	61,6	69,3	77,0	84,7	92,4	100,1	107,8	115,5	123,2

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
Torque in Nm	5	23	16	31	24	39	32	47	40												
	6	28	19	28	19	36	27	44	35	52	43	59	51								
	7	32	22	25	15	33	23	41	31	48	38	56	46								
	8	37	25	22	10	30	18	37	26	45	34	53	42	61	49	69	57	85	73		
	9	41	29			26	13	34	21	42	29	50	37	58	45	66	53	81	68		
	10	46	32					31	17	39	24	47	32	55	40	62	48	78	64	94	79
	11	51	35							36	20	44	28	51	36	59	43	75	59	91	75
	12	55	38									40	23	48	31	56	39	72	55	87	70

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	3,1	0,90
single-acting	3,6	0,43

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	2,70	3,15	3,60	4,05	4,50	4,95	5,40	6,30	7,20
single-acting	1,29	1,51	1,72	1,94	2,15	2,37	2,58	3,01	3,44