


PR052

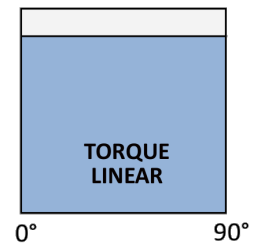
Design	Pneumatic double-piston rotary actuator in rack and pinion design
Function	Double- and single-acting execution
Standards	Interface actuator/feedback-unit - VDI/VDE 3845 (NAMUR) Interface actuator/control media - VDI/VDE 3845 (NAMUR) Interface actuator/valve - ISO5211 / DIN 3337
Temperature range	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	 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

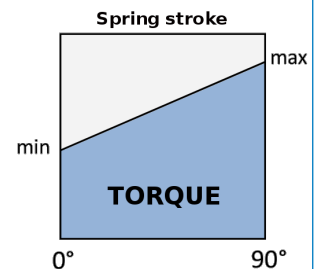
Double-acting

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

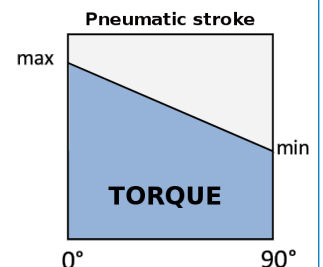


Single-acting

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.

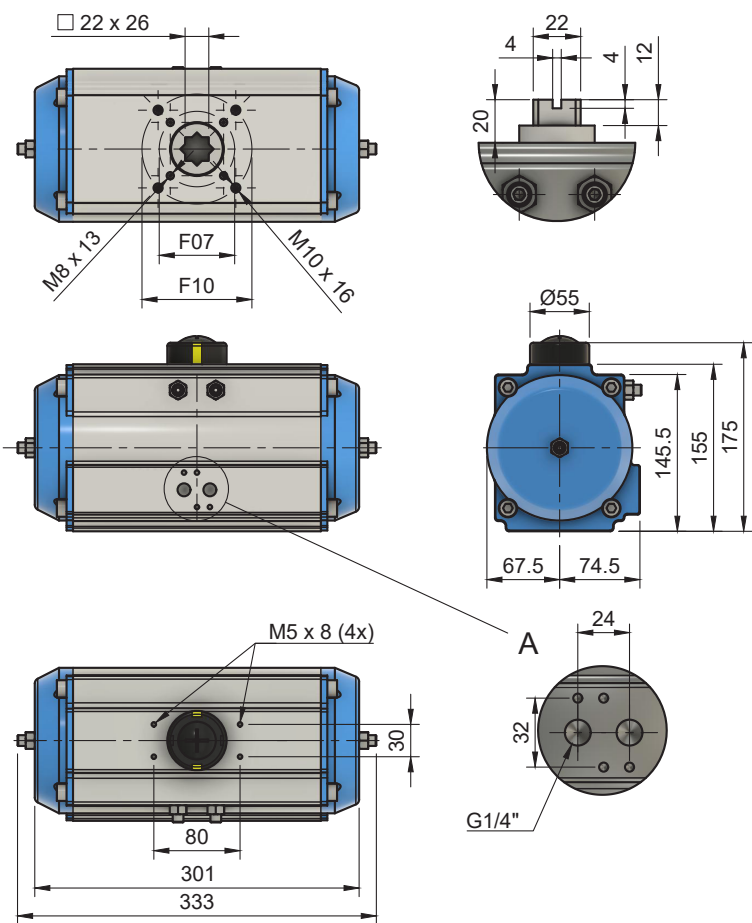


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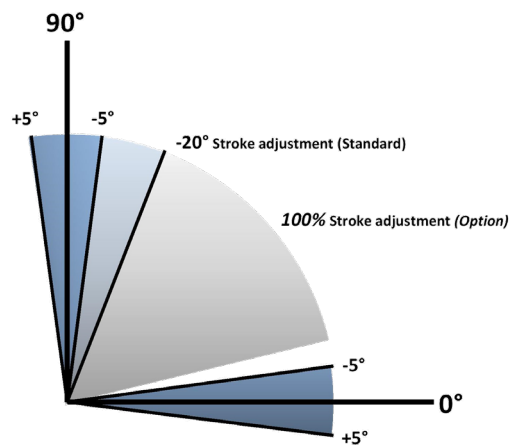
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Dimensions



Angle adjustment



Both end positions can be adjusted by +/-5° 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	103	128	154	179	205	230	256	281	307	332	358	383	409

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	79	52	98	72	123	97	148	122												
	6	94	63	88	56	113	82	138	107	163	132	188	157								
	7	110	73	77	40	102	65	127	90	153	116	178	141								
	8	125	84	67	25	92	50	117	75	142	100	167	125	192	151	217	176	268	226		
	9	141	94			82	34	107	59	132	84	157	109	182	134	207	159	257	210		
	10	157	105					96	44	121	69	146	94	171	119	196	144	247	194	297	245
	11	173	115							111	53	136	78	161	103	186	128	236	178	286	228
12	188	125									125	63	151	88	176	113	226	163	276	213	

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