


PR216

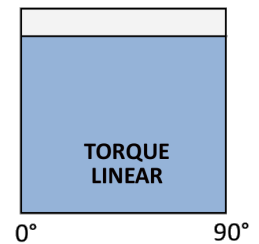
Design	Pneumatic double-piston rotary actuator in rack and pinion design
Function	Double- and single-acting execution
Standards	Interface actuator/feedback-unit - VDI/VDE 3845 (NAMUR) Interface actuator/control media - VDI/VDE 3845 (NAMUR) Interface actuator/valve - ISO5211 / DIN 3337
Temperature range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

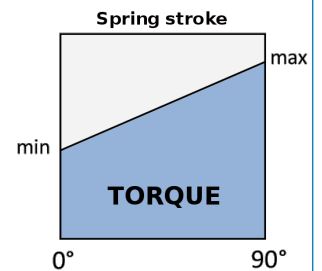
Double-acting

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

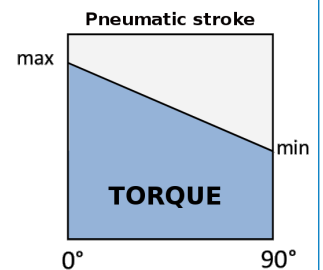


Single-acting

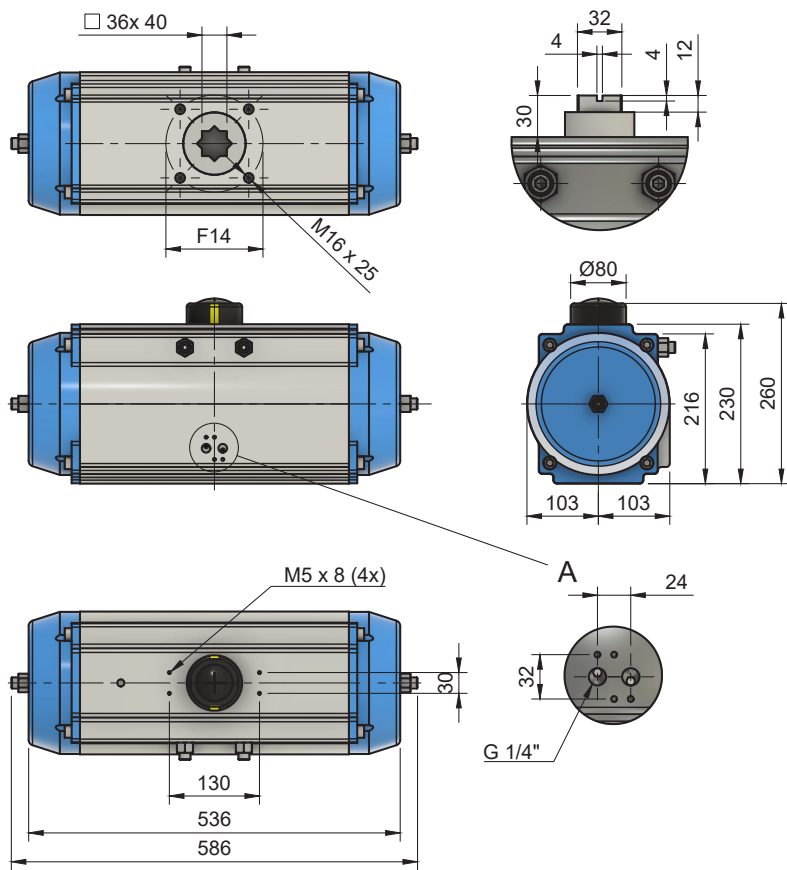
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions.



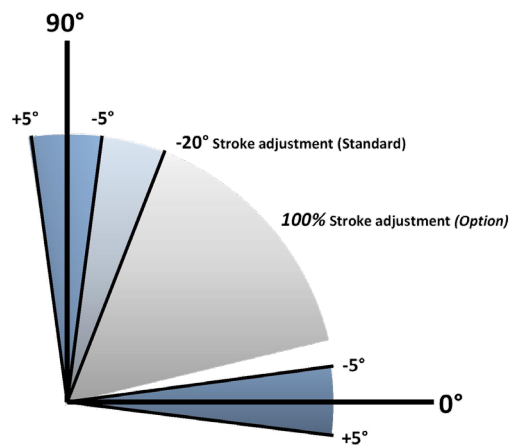
Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	431	538	646	753	861	968	1076	1183	1291	1398	1506	1613	1721

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	309	200	438	329	545	436	651	542												
	6	371	240	398	267	505	374	611	480	718	587	824	693								
	7	433	280	358	205	465	312	571	418	678	525	784	631								
	8	495	320	318	143	425	250	531	356	638	463	744	569	851	676	957	782	1169	995		
	9	557	360			385	189	491	295	598	401	704	507	811	614	917	720	1130	933		
	10	618	400					451	233	558	340	664	446	771	552	877	658	1090	871	1302	1084
	11	680	440					411	171	518	278	624	384	731	491	837	597	1050	809	1263	1022
	12	742	480							478	216	584	322	691	429	797	535	1010	748	1223	960

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	31,0	11,3
single-acting	35,0	5,9

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	33,9	39,6	45,2	50,9	56,5	62,2	67,8	79,1	90,4
single-acting	17,7	20,7	23,6	26,6	29,5	32,5	35,4	41,3	47,2