

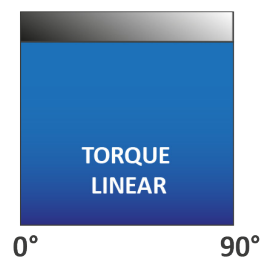
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Housing	Anodised aluminum ASTM 6083, UNI 4522
	Caps	Aluminum UNI 5076, epoxy resin coated
	Pistons	Aluminum UNI 5076
	Pinion	Steel, nickel-plated (optional: stainless steel)
	Bearings	POM
	Sealings	NBR, optional: FKM or silicone
Temperature range	Standard (NBR)	-50°C...+70°C
	High temperature (Viton)	-15°C...+160°C
	Extended temperature (Silicone)	-60°C...+200°C
ATEX marking	 	II 2 G Ex h IIC T5...T2 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°, 120°, 180° resp. 240° Adjustable in one end position +/-5° (optional 100% stroke adjustment) Version BE: Adjustable in both end positions	
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

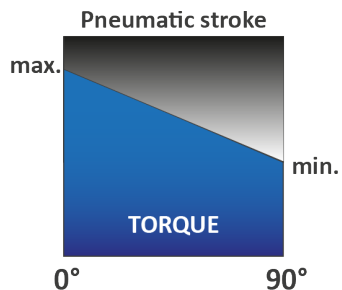
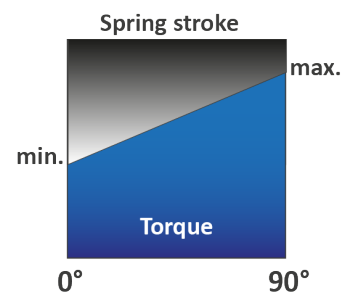
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



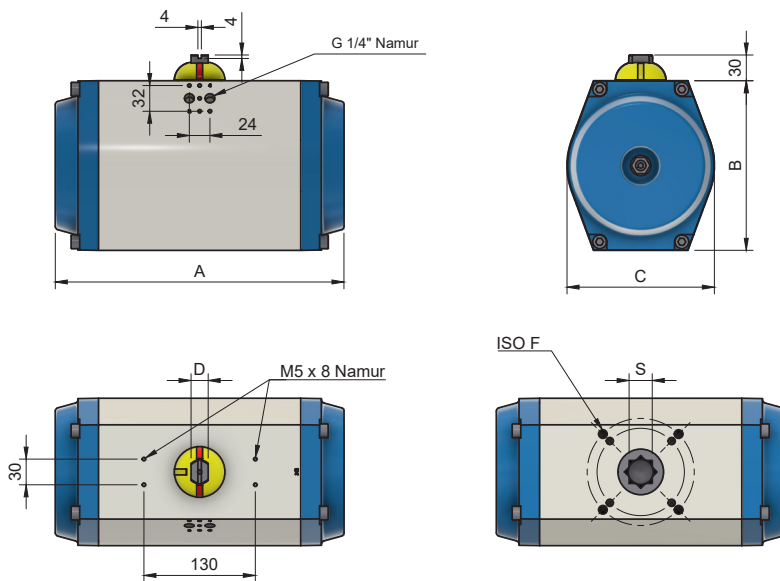
Single-acting

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.

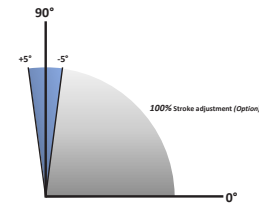


Dimensions



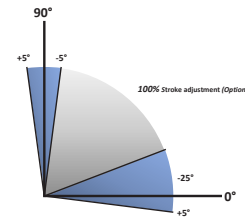
Angle adjustment

Variant „Standard“



The switch position 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.

Variant „BE“



With the “BE” option, both end position can be set independently of one another for fine adjustment.

Dimension table

Dimensions in mm							
90°	A 120°	180°	B	C	D	S	ISO-F
379	444	570	198	172	28	27	F10/F12

Volume, weight

Volume (l)				Weight (kg)			
90° single-acting	90° double-acting	120° double-acting	180° double-acting	90° single-acting	90° double-acting	120° double-acting	180° double-acting
3,80	7,00	8,00	13,00	20,1	16,40	18,80	26,00

Torques double-acting

Control Pressure in bar (g)	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	8
Torque in Nm	230,0	287,5	345,0	402,5	460,0	517,5	575,0	644,0	690,0	747,5	805,0	920,0

Torques single-acting

				Torque pneumatic stroke in Nm at Control Pressure in bar (g)															
Torque spring in Nm				2		3		4		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	2	83	56	172	145	287	260	403	375	518	490	587	559	633	605	748	720	863	835
	4	166	112	115	59	230	174	345	289	460	404	529	473	575	519	690	634	805	749
	6	249	168	-	-	172	89	287	204	402	319	471	388	517	434	632	549	747	664
	8	332	224	-	-	-	-	230	118	345	233	414	302	460	348	575	463	690	578
	10	415	279	-	-	-	-	172	33	287	148	356	217	402	263	517	378	632	493
	12	498	335	-	-	-	-	-	-	230	62	299	131	345	177	460	292	575	407