

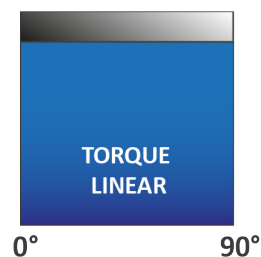
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Housing	Anodised aluminum ASTM 6083, UNI 4522
	Caps	Aluminum UNI 5076, epoxy resin coated
	Pistons	Aluminum UNI 5076
	Pinion	Steel, nickel-plated (optional: stainless steel)
	Bearings	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° 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

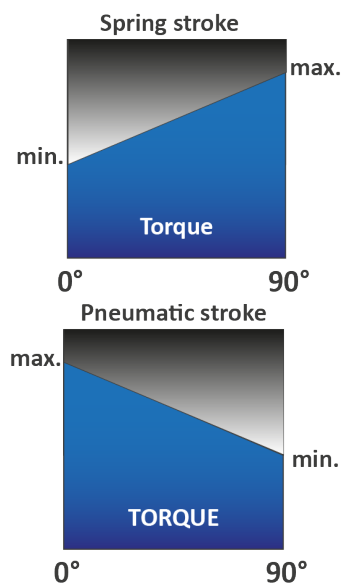
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



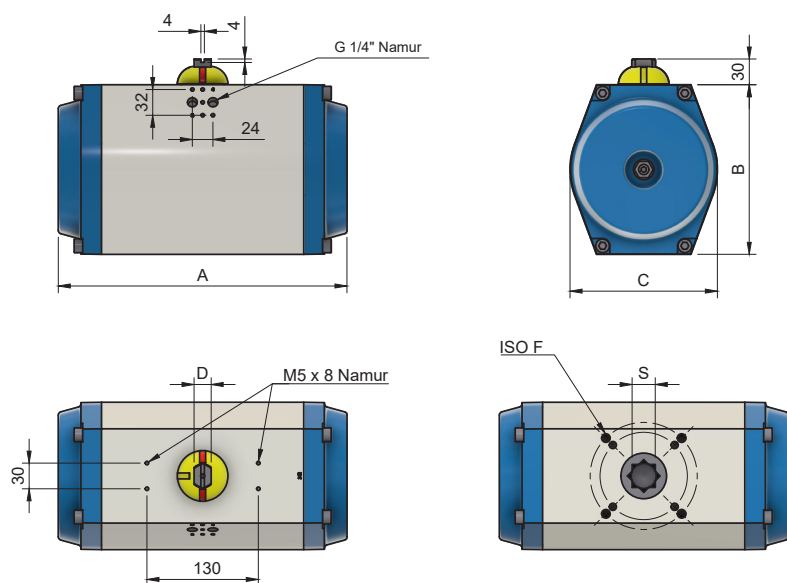
Single-acting

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.

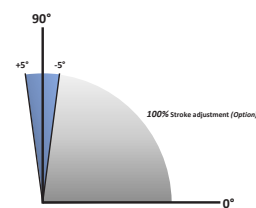


Dimensions



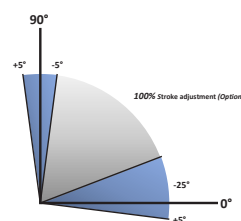
Angle adjustment

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
689	814	-	360	360	32	46	F16

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
25,00	46,00	68,00	-	107,10	92,00	105,00	-

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	1600	2000	2400	2800	3200	3600	4000	4480	4800	5200	5600	6400

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	406	272	1320	1182	2120	1982	2920	2782	3720	3582	4200	4062	4520	4382	5320	5182	6120	5982
	4	812	544	1039	763	1839	1563	2639	2363	3439	3163	3919	3643	4239	3963	5039	4763	5839	5563
	6	1218	817	759	345	1559	1145	2359	1945	3159	2745	3639	3225	3959	3545	4759	4345	5559	5145
	8	1624	1089	-	-	1278	727	2078	1527	2878	2327	3358	2807	3678	3127	4479	3927	5279	4727
	10	2031	1361	-	-	998	309	1798	1109	2598	1909	3078	2389	3398	2709	4198	3509	4998	4309
	12	2437	1633	-	-	-	-	1518	690	2318	149	2798	197	3118	2290	3918	309	4718	3890
	14	2843	1906	-	-	-	-	1237	272	2037	1072	2517	1552	2837	1872	3637	2672	4437	3472
	16	3249	2178	-	-	-	-	-	-	1757	654	2237	1134	2557	1454	3357	2254	4157	3054