

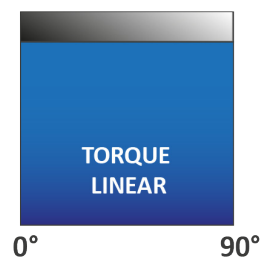
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Housing	Anodised aluminum ASTM 6083, UNI 4522
	Caps	Aluminum UNI 5076, epoxy resin coated
	Pistons	Aluminum UNI 5076
	Pinion	Steel, nickel-plated (optional: stainless steel)
	Bearings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

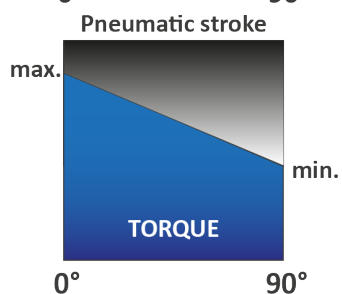
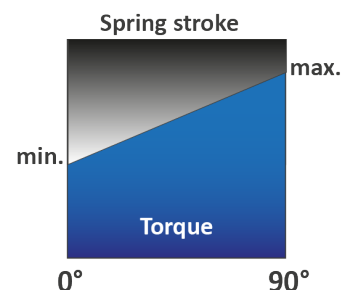
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



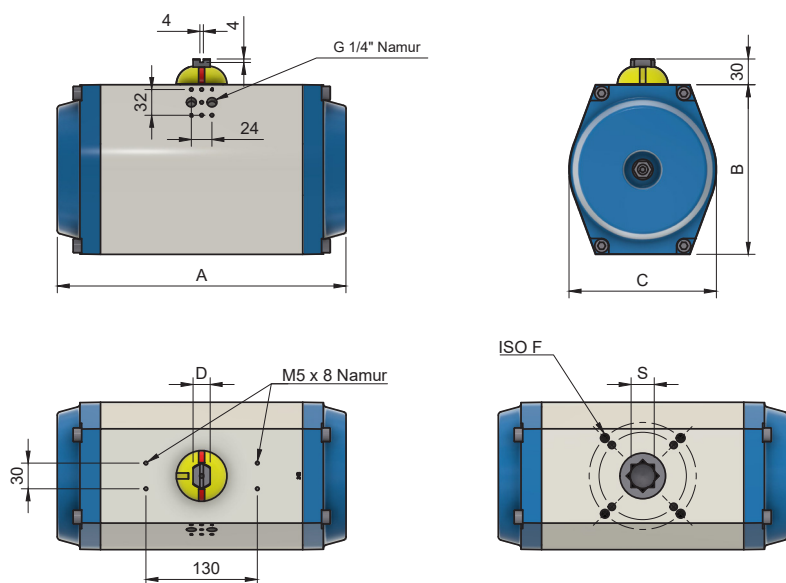
Single-acting

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.

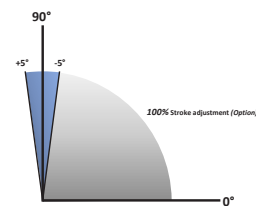


Dimensions



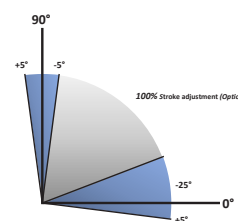
Angle adjustment

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
609	711	911	302	272	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
14,00	27,00	31,50	41,00	70,60	55,50	66,50	79,80

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	920	1150	1380	1610	1840	2070	2300	2576	2760	2990	3220	3680

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	321	238	675	589	1135	1049	1595	1509	2055	1969	2331	2245	2515	2429	2975	2889	3435	3349
	4	643	476	430	258	890	718	1350	1178	1810	1638	2086	1914	2270	2098	2730	2558	3190	3018
	6	964	714	-	-	644	387	1104	847	1564	1307	1840	1583	2024	1767	2484	2227	2945	2687
	8	1285	953	-	-	-	-	859	516	1319	976	1595	1252	1779	1436	2239	1896	2699	2356
	10	1607	1191	-	-	-	-	614	185	1074	645	1350	921	1534	1105	1994	1565	2454	2025
	12	1928	1429	-	-	-	-	-	-	829	314	1105	590	1289	774	1749	1234	2209	1694