

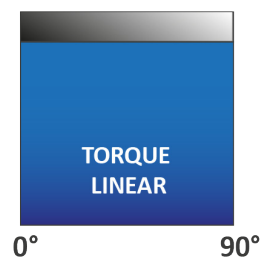
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Housing	Anodised aluminum ASTM 6083, UNI 4522
	Caps	Aluminum UNI 5076, epoxy resin coated
	Pistons	Aluminum UNI 5076
	Pinion	Steel, nickel-plated (optional: stainless steel)
	Bearings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

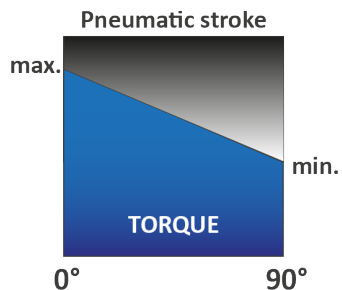
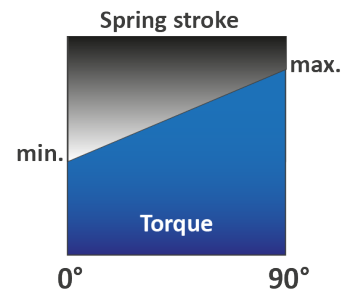
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



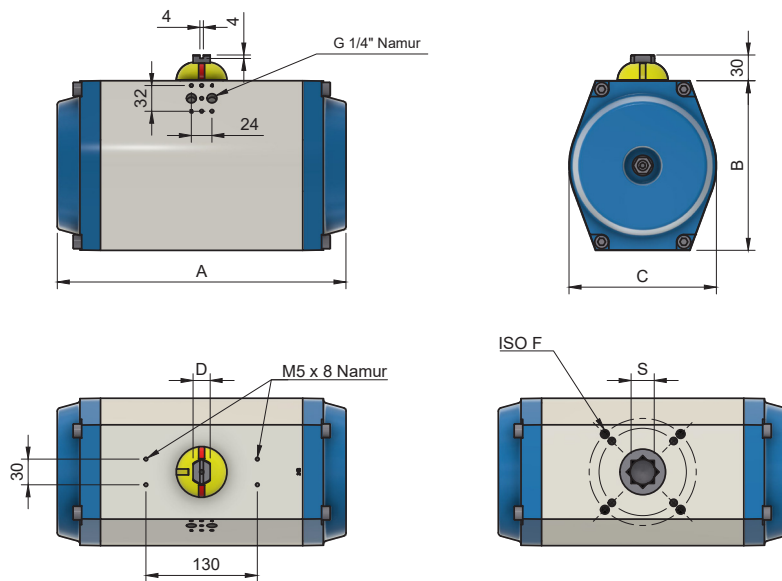
Single-acting

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.

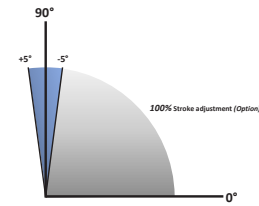


Dimensions



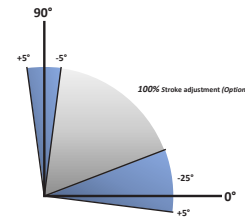
Angle adjustment

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
468	544	696	255	224	32	36	F14

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
8,00	15,00	17,00	21,50	39,60	31,80	37,40	49,20

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	480	600	720	840	959	1080	1200	1344	1440	1560	1680	1920

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	160	114	362	315	602	555	842	795	1082	1034	1226	1178	1322	1274	1562	1514	1802	1754
	4	321	228	245	149	485	389	725	629	965	869	1109	1016	1205	1109	1445	1349	1685	1589
	6	482	342	-	-	367	224	607	464	847	704	991	847	1097	943	1327	1183	1567	1423
	8	642	456	-	-	250	58	490	298	729	538	873	682	969	778	1209	1018	1449	1258
	10	803	571	-	-	-	-	372	133	612	373	756	517	852	613	1092	852	1332	1092
	12	964	685	-	-	-	-	-	-	494	207	638	351	734	447	974	687	1214	927