



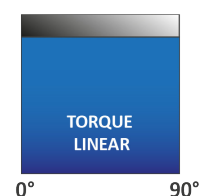
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double- and single-acting	
Material	Body Caps Pistons Pinion shaft Bearings Sealings Screws	Aluminum, powder-coated Aluminum, powder-coated Aluminum Carbon steel, nickel plated POM Standard: NBR Optional: HNBR/FPM/Silicone Stainless steel
Temperature range	Standard	-20°C...+80°C
	Low temperature version	-40°C...+80°C
	High temperature version	-10°C...+150°C
ATEX marking	  II 2 G Ex h IIC T6...T3 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° Adjustable in both end positions +/-5° (optional stroke adjustment up to 100%)	
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

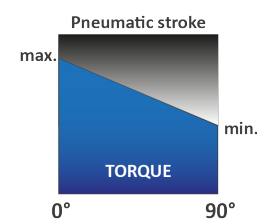
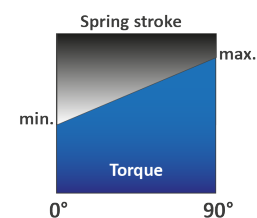
Double-acting

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

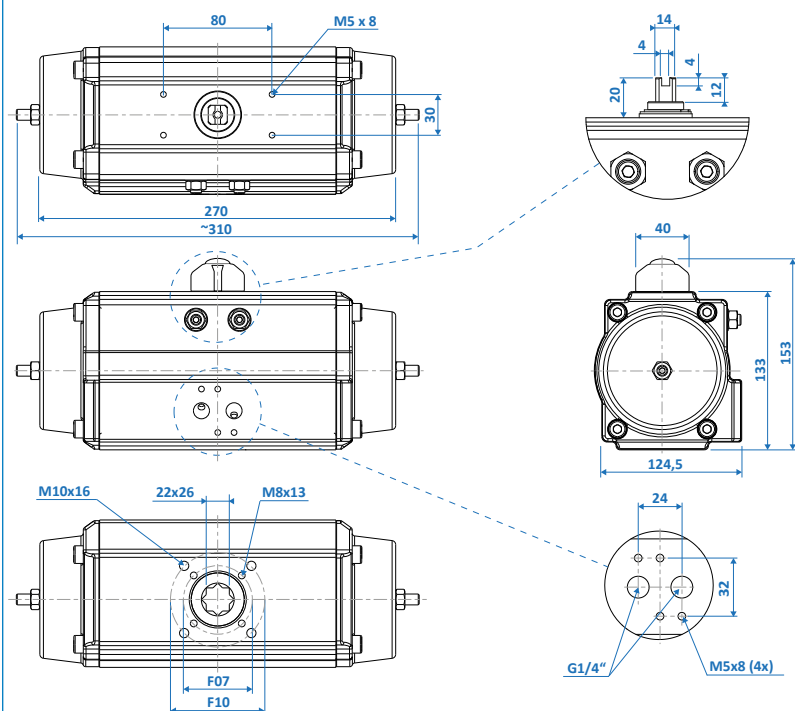


Single-acting

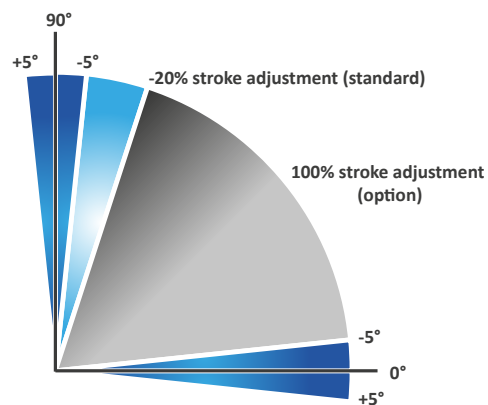
Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions. Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



Dimensions



Angle adjustment



Both end positions 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.

Torques double-acting

Control pressure in bar (g)	2	2,5	3	3,5	4	4,5	5	5,5	6	7	8
Torque in Nm	65	81	98	114	130	146	163	179	195	228	260

Torques single-acting

				Control pressure in bar (g)																	
Torque spring stroke in Nm				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	48	33	64	49	80	65	97	82	113	98	129	114	145	130	162	147	194	179	227	212
	6	58	40	57	39	74	56	90	72	106	88	122	104	139	121	155	137	187	169	220	202
	7	68	47	51	30	67	46	83	62	99	78	116	95	132	111	148	127	181	160	213	192
	8	77	53	44	20	60	36	77	53	93	69	109	85	125	101	142	118	174	150	207	183
	9	87	60			54	27	70	43	86	59	102	75	119	92	135	108	167	140	200	173
	10	97	67			47	17	63	33	79	49	96	66	112	82	128	98	161	131	193	163
	11	106	73					57	24	73	40	89	56	105	72	122	89	154	121	187	154
	12	116	80					50	14	66	30	82	46	99	63	115	79	147	111	180	144

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	6,8	1,83
single-acting	6,9	0,95

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	5,49	6,41	7,32	8,24	9,15	10,07	10,98	12,81	14,64
single-acting	2,85	3,33	3,80	4,28	4,75	5,23	5,70	6,65	7,60