



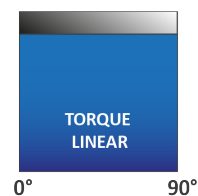
Design	Pneumatic double-piston rotary actuator in rack and pinion design	
Function	Double and single-acting	
Material	Body Caps Pistons Pinion shaft Bearings Sealings Screws	Aluminum, powder-coated Aluminum, powder-coated Aluminum Carbon steel, nickel plated POM Standard: NBR Optional: HNBR/FPM/Silicone Stainless steel
Temperature range	Standard	-20°C ... +80°C
	Low temperature	-40°C ... +80°C
	High temperature	-10°C ... +150°C
ATEX marking	 	Standard and low temperature II 2 G Ex h IIC T6/T5 Gb II 2 D Ex h IIIC 100°C Db High temperature 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

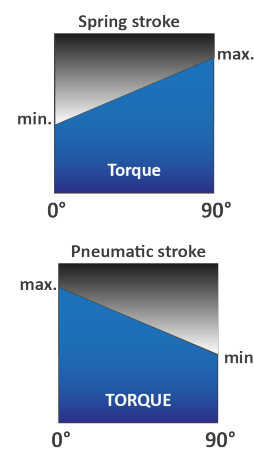
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



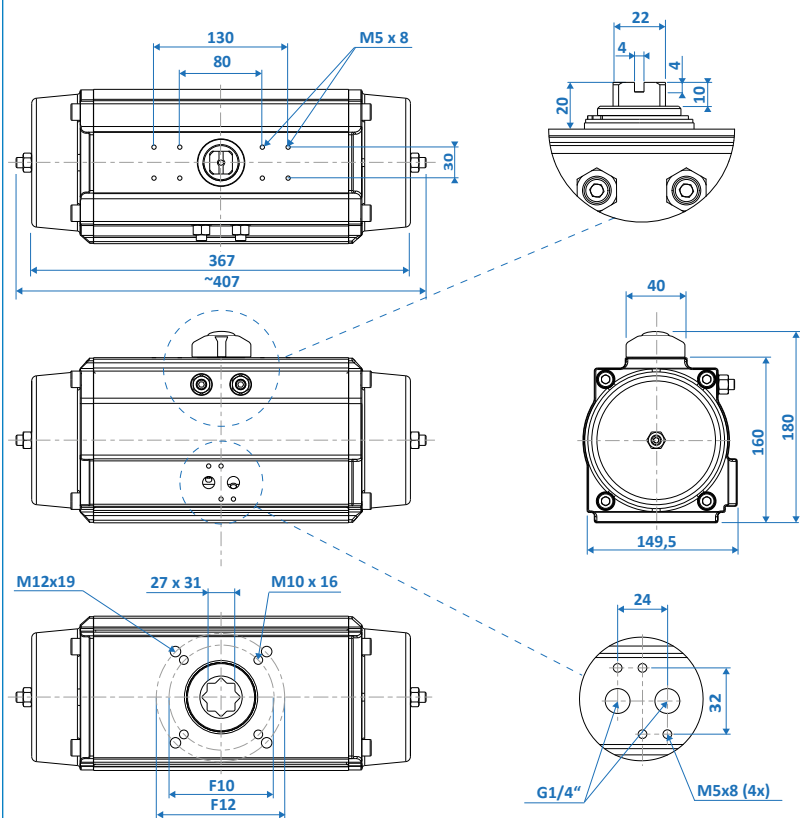
Single-acting

Provides a linearly reducing torque through the complete pivoting angle in both pivoting directions.

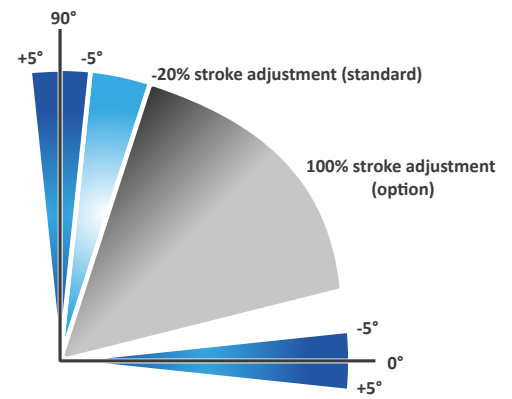
Offers the maximum torque at the beginning of each stroke to overcome the breakaway torque.



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	138	173	208	226	277	312	346	381	416	485	555

Torques single-acting

Torque spring stroke in Nm				Control pressure in bar (g)																	
				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.
Torque in Nm	5	105	66	142	103	176	137	211	172	245	206	280	241	315	275	349	310	418	379	487	448
	6	127	80	128	81	163	116	197	150	232	185	266	219	301	254	335	288	404	357	473	426
	7	148	93	115	60	150	95	184	129	219	164	253	198	288	233	322	267	391	336	460	405
	8	169	107	101	39	136	74	170	108	205	143	239	177	274	212	309	247	378	316	447	405
	9	190	120			123	53	157	87	192	122	226	156	261	191	296	226	365	295	434	364
	10	212	133					144	65	179	100	213	134	248	169	283	204	352	273	422	343
	11	233	147							165	79	199	113	234	148	269	183	338	252	408	322
	12	255	161									185	91	220	126	255	161	324	230	394	300

Weight, volume

Function	Weight (kg)	Volume (l)
double-acting	11,2	4,4
single-acting	13,7	2,3