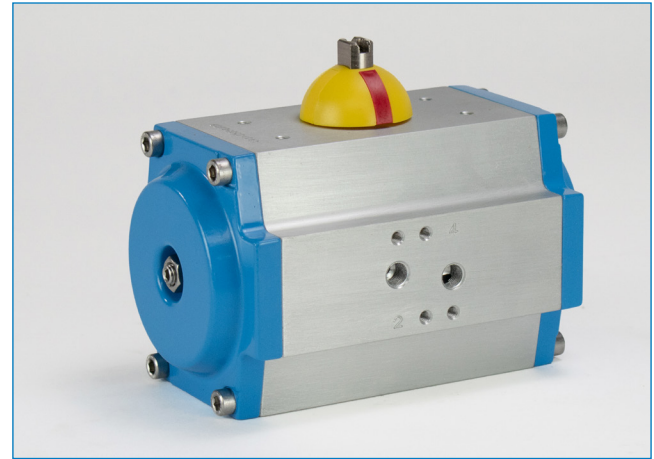


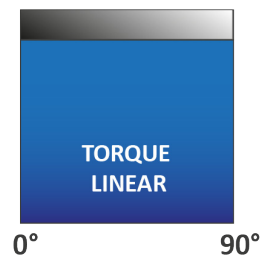
<b>Design</b>	Pneumatic double-piston rotary actuator in rack and pinion design	
<b>Function</b>	Double- and single-acting	
<b>Material</b>	<b>Housing</b>	Anodised aluminum ASTM 6083, UNI 4522
	<b>Caps</b>	Aluminum UNI 5076, epoxy resin coated
	<b>Pistons</b>	Aluminum UNI 5076
	<b>Pinion</b>	Steel, nickel-plated (optional: stainless steel)
	<b>Bearings</b> <b>Sealings</b>	POM NBR, optional: FKM or silicone
<b>Temperature range</b>	<b>Standard (NBR)</b>	-50°C...+70°C
	<b>High temperature (Viton)</b>	-15°C...+160°C
	<b>Extended temperature (Silicone)</b>	-60°C...+200°C
<b>ATEX marking</b>		II 2 G Ex h IIC T5...T2 Gb II 2 D Ex h IIIC 170°C Db
<b>Control pressure</b>	2...8 bar	
<b>Control media</b>	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	
<b>Mounting position</b>	Any mounting position	
<b>Nominal rotation angle</b>	90°, 120°, 180° resp. 240° Adjustable in one end position +/-5° (optional 100% stroke adjustment) Version BE: Adjustable in both end positions	
<b>Standards</b>	<b>Interface actuator/ feedback-unit</b>	VDI/VDE 3845 resp. NAMUR
	<b>Interface actuator/ control media</b>	VDI/VDE 3845 resp. NAMUR
	<b>Interface actuator/ valve</b>	ISO 5211 and DIN 3337



### Torque diagram

#### Double-acting

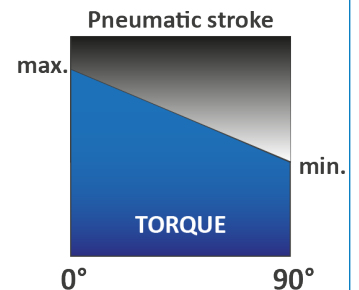
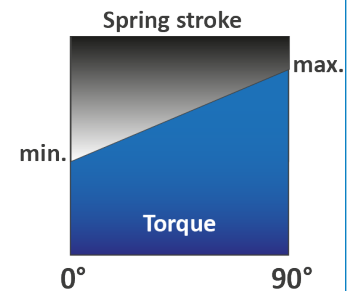
Provides a linear and constant torque through the complete pivoting angle in both pivoting directions.



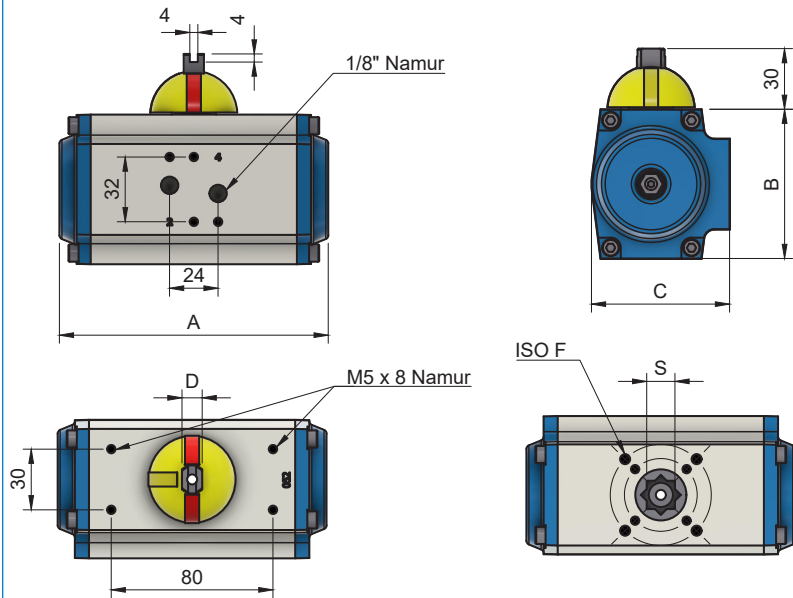
#### Single-acting

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.

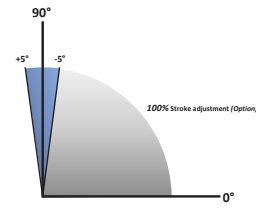


## Dimensions



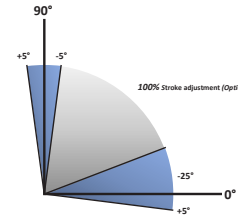
## Angle adjustment

### Variant „Standard“



The switch position can be adjusted by +/-5° 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								
	A			B	C	D	S	ISO-F
	90°	120°	180°					
	133	151	195	74	68,50	10	14	F03/F05

## 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
0,13	0,25	0,28	0,46	1,00	0,90	1,10	1,30

## 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	7,8	9,7	11,7	13,6	15,6	17,5	19,5	21,8	23,4	25,3	27,3	31,2

## 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	3,2	1,9	5,8	4,5	9,7	8,4	13,6	12,3	17,5	16,2	19,9	18,6	21,4	20,1	25,3	24,0	29,2	27,9
	4	6,4	3,8	3,9	1,3	7,8	5,2	11,7	9,1	15,6	13,0	17,9	15,3	19,5	16,9	23,4	20,8	28,3	24,7
	6	9,6	5,7	-	-	5,8	1,9	9,7	5,8	13,6	9,7	16,0	12,1	17,5	13,6	21,4	17,5	25,3	21,4
	8	12,8	7,6	-	-	-	-	7,8	2,6	11,7	6,5	14,0	8,8	15,6	10,4	19,5	14,3	23,4	18,2
	10	15,9	9,6	-	-	-	-	-	-	9,7	3,2	12,1	5,6	13,6	7,1	17,5	11,0	21,4	14,9
	12	19,1	11,5	-	-	-	-	-	-	-	-	10,1	2,3	11,7	3,9	15,6	7,8	19,5	11,7