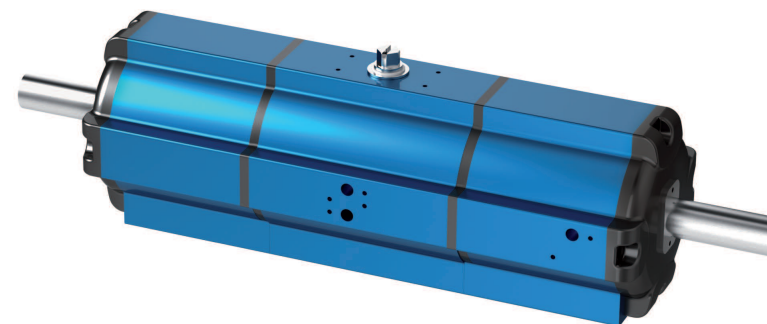


DOUBLE-PISTON QUARTER TURN ACTUATORS

TYPE DAD / DAF 90°

Technical Data

Design :	Pneumatic double-piston quarter turn actuator with dosing mode
Design features :	Rack-and-pinion system, piston guide via guide rods
Angle of rotation :	Fixed rotation angle 0° to 90° (normal operation) Adjustable at any position between 0° and 90° (dosing mode) Also suitable for Partial Stroke application
Air pressure supply :	mind. 2 bar, max. 8 bar
Operating medium :	Dry and filtered compressed air
Ambient temperature :	-25°C to +80°C
Mounting position :	any
Resistance to corrosion :	Industrial atmosphere
Lubrication :	Life time lubrication with grease ISO 51825-K2K-30
Seals :	NBR-O-Rings, 70 Shore
Coatings :	Housing anodized and colour sealed End caps - CED Cathodic electrodeposition
Maintenance and inspection :	AMG actuators are free of maintenance within the life time. Provided that: <ul style="list-style-type: none">• the actuator is properly mounted• the operating medium used is clean and non-aggressive• the actuator is operated under normal ambient conditions• the actuator is used in compliance with the intended use (see assembly and maintenance manual)
Applied standard :	DIN EN ISO 5211, DIN EN 15714-3, VDI / VDE 3845, DIN 79

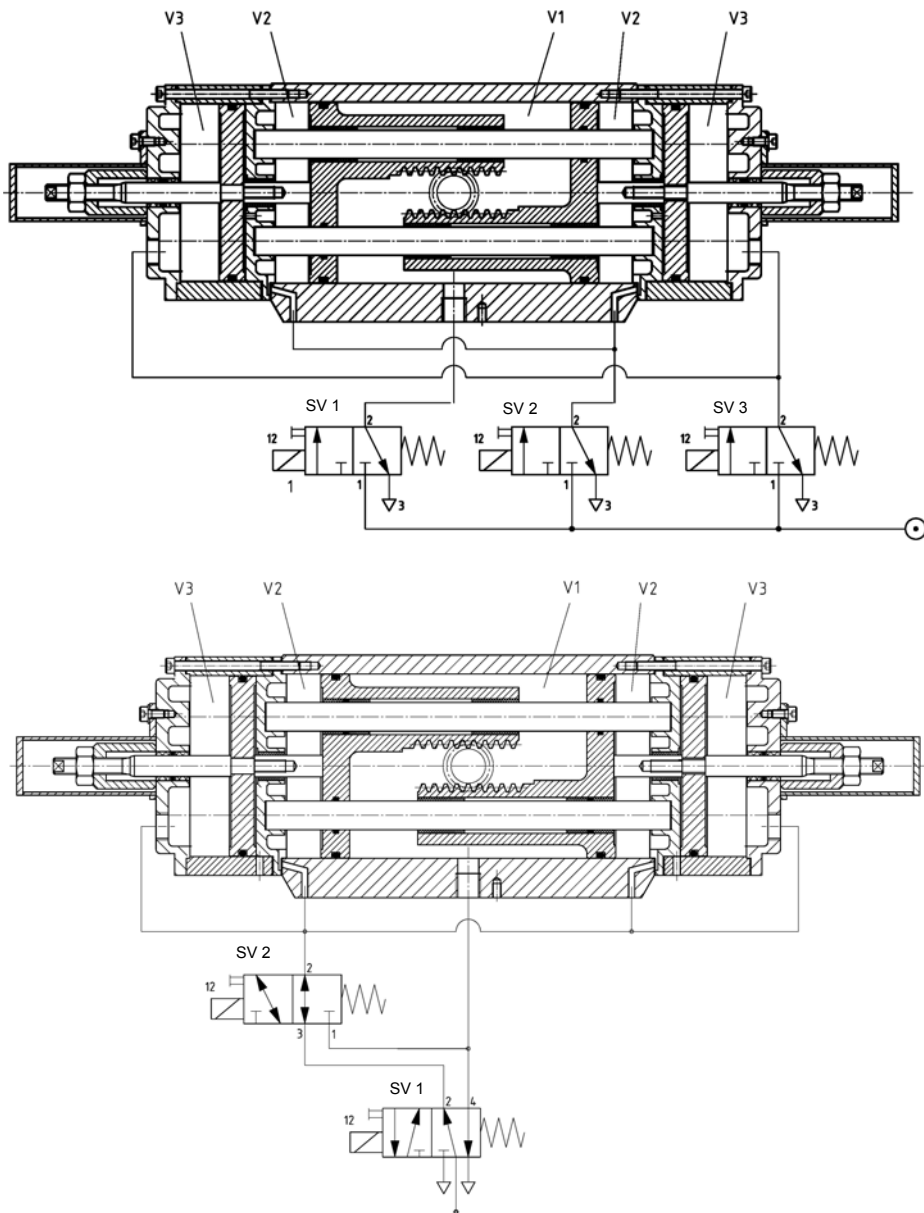


DAD / DAF



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DOUBLE-PISTON QUARTER TURN ACTUATORS
TYPE DAD / DAF 90°



DAD (3x 3/2 Way)	SV 1	SV 2	SV 3
	12	12	12
0° - Intremediate position	1	0	1
Intremediate position - 90°	1	0	0
90° - Intremediate position	0	0	1
Intremediate position - 0°	0	1	1
0° - 90°	1	0	0
90° - 0°	0	1	1

DAD (1x 3/2 & 1x 5/2 Way)	SV 1	SV 2
	12	12
0° - Intremediate position	1	0
Intremediate position - 90°	1	0
90° - Intremediate position	0	0
Intremediate position - 0°	0	1
0° - 90°	1	0
90° - 0°	0	1

(SV 2 switchen after SV 1)

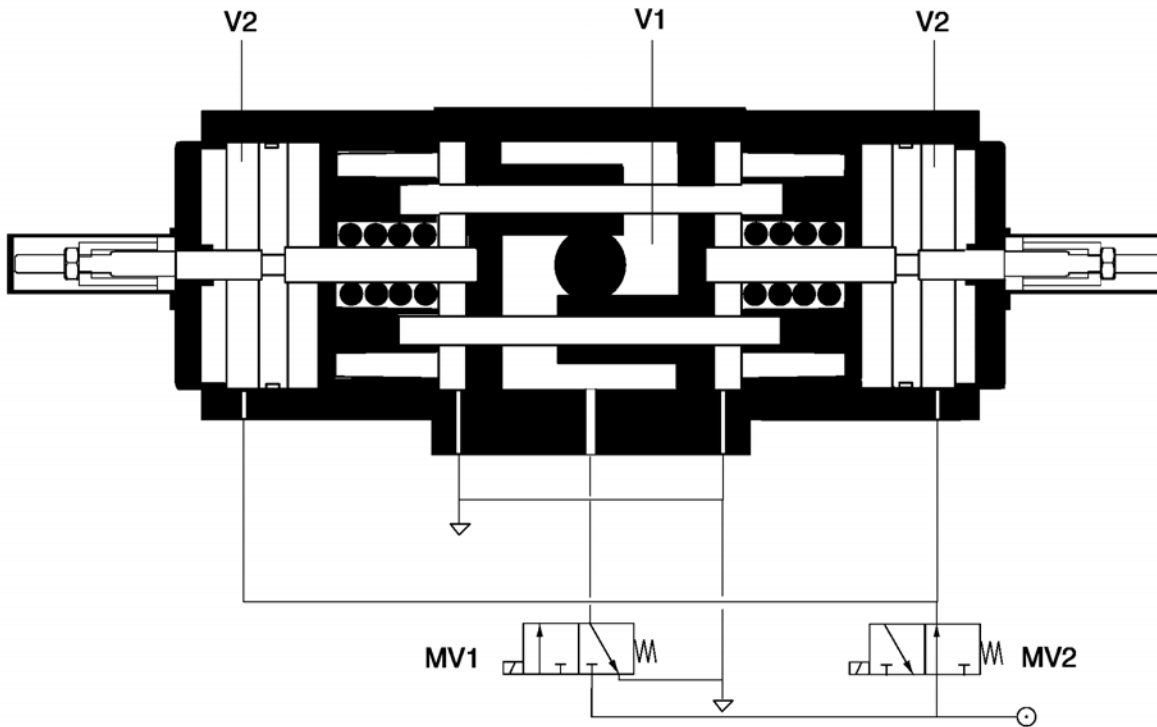
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DOUBLE-PISTON QUARTER TURN ACTUATORS
TYPE DAD / DAF 90°



DAF

The mechanism is actuated using two 3/2 directional valves.

Coarse pulse: MV I switches to Position 1 and aerates V₁. MV II remains in Position 1 and de-aerates V₂. The inner piston opens the fitting by 90° in a counter-clockwise direction.

Fine pulse: MV II switches to Position 1 and aerates V₂. V₁ remains aerated. With the support of spring forces, outer pistons move the inner pistons against the aerated V₁ chamber until the completely reproducible, fixed middle position, which is set using the outer adjusting nuts, has been reached. The fitting is closed in a clockwise direction until it reaches the middle position.

Blocking pulse: MV I and MV II switch to Position 0. V₁ and V₂ are de-aerated. The released spring forces close the fitting.

Note: If V₂ is not de-aerated, it can be moved between the "CLOSED" and "Dosing" positions.

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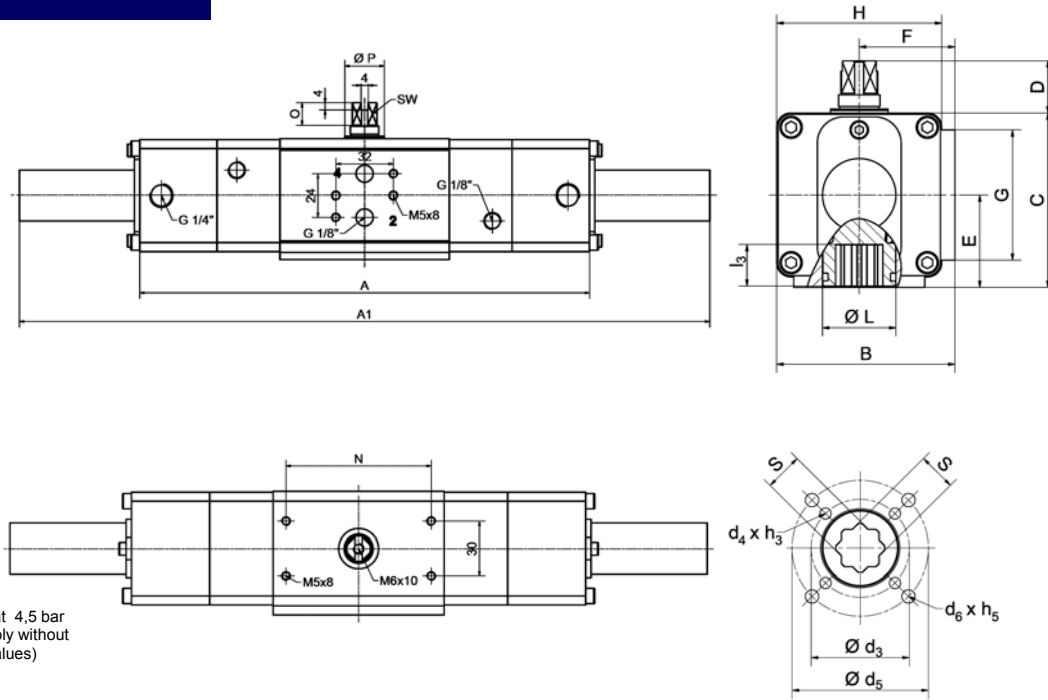
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DOUBLE-PISTON QUARTER TURN ACTUATORS
TYPE DAD / DAF 90°

Size	07
Weight [kg]	
Type DAD	2,3
Stroke volume [dm ³]	
Type DAD	0,2
Operating times [sec.] ¹⁾	
Type DAD OPEN	0,1
Type DAD CLOSE	0,1

1) operating times at 4,5 bar air pressure supply without load (standard values)



Type	number of springs n	spring-torque Ms [Nm]	air torque Ma [Nm] at operating pressure pe [bar]																									
			2 bar		2,5 bar		3 bar		3,5 bar		4 bar		4,5 bar		5 bar		5,5 bar		6 bar		6,5 bar		7 bar		7,5 bar		8 bar	
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
DAD 07	-	-	7,3		9,3		11,3		13,4		15,4		17,4		19,5		21,5		23,5		25,6		27,6		29,6		31,7	

Design	DAD
Size	07
A	251
A1	385
B	68
C	67
D	20
E	35,5
F	36,5
G	50
H	63
K	-
Ø L	28
J	-
Ø M	-
N	80
O	12
Ø P	22
SW	12
Connection ISO 5211	F03 / F05
Ø d ₅	50
Ø d ₃	36
d ₄ x h ₃	M5x10
Number of screws	4
d ₆ x h ₅	M6x10
l ₃	16
s	14

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