

Three Position Torque Cylinder

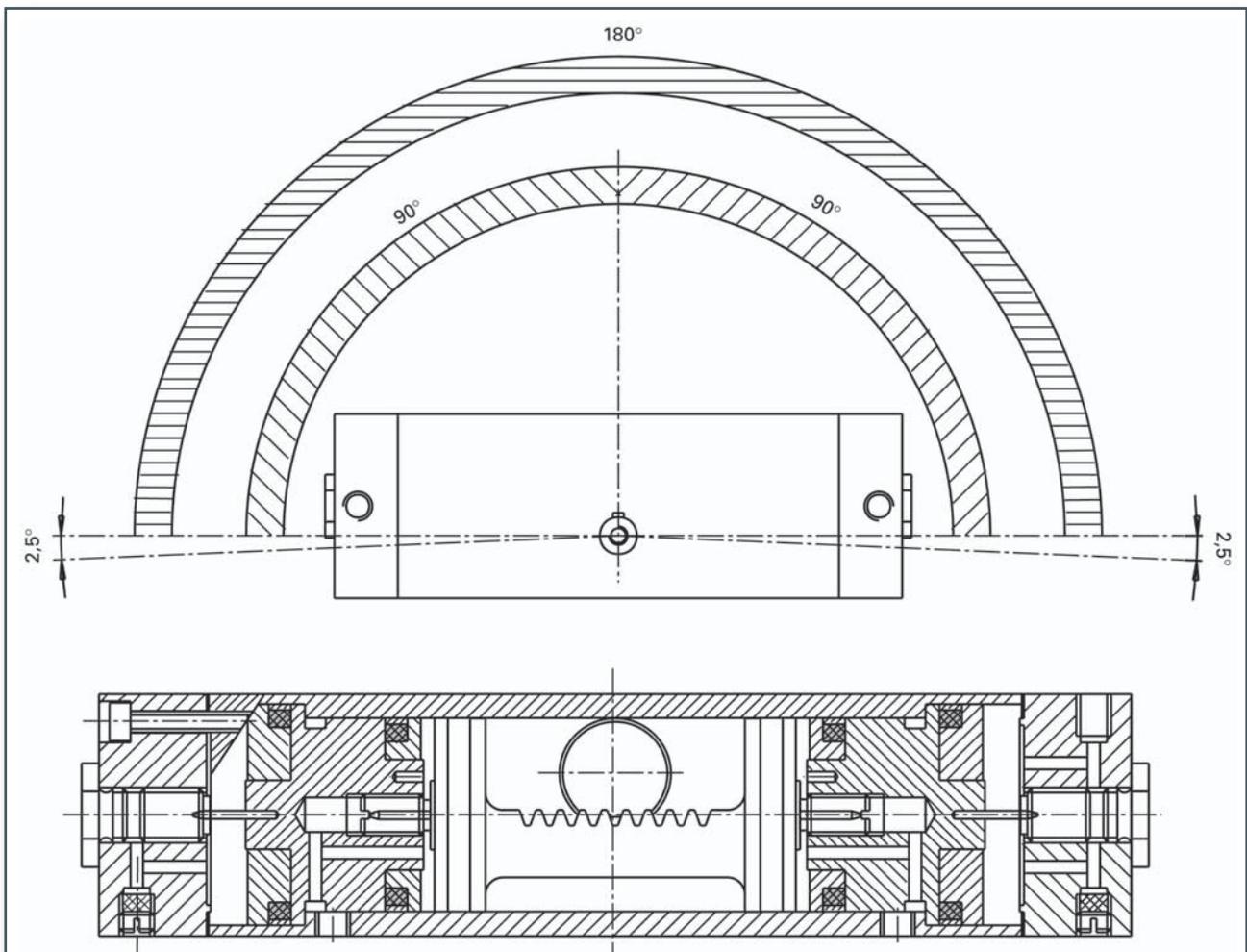
Keyword : Mid position



Actuators with an exactly defined mid position (Attention: Backlash !) are based on three piston units. The two external pistons push the piston with the rack into the mid position. If the two cylinders on both sides are without pressure and only the center piston is pressurized, the pinion will turn around the complete angle. The speciality of this construction is, that in spite of the small construction all pistons have end position damping. Field tests did prove, that this pneumatic end position damping is superior to the normally used miniature shock absorbers.

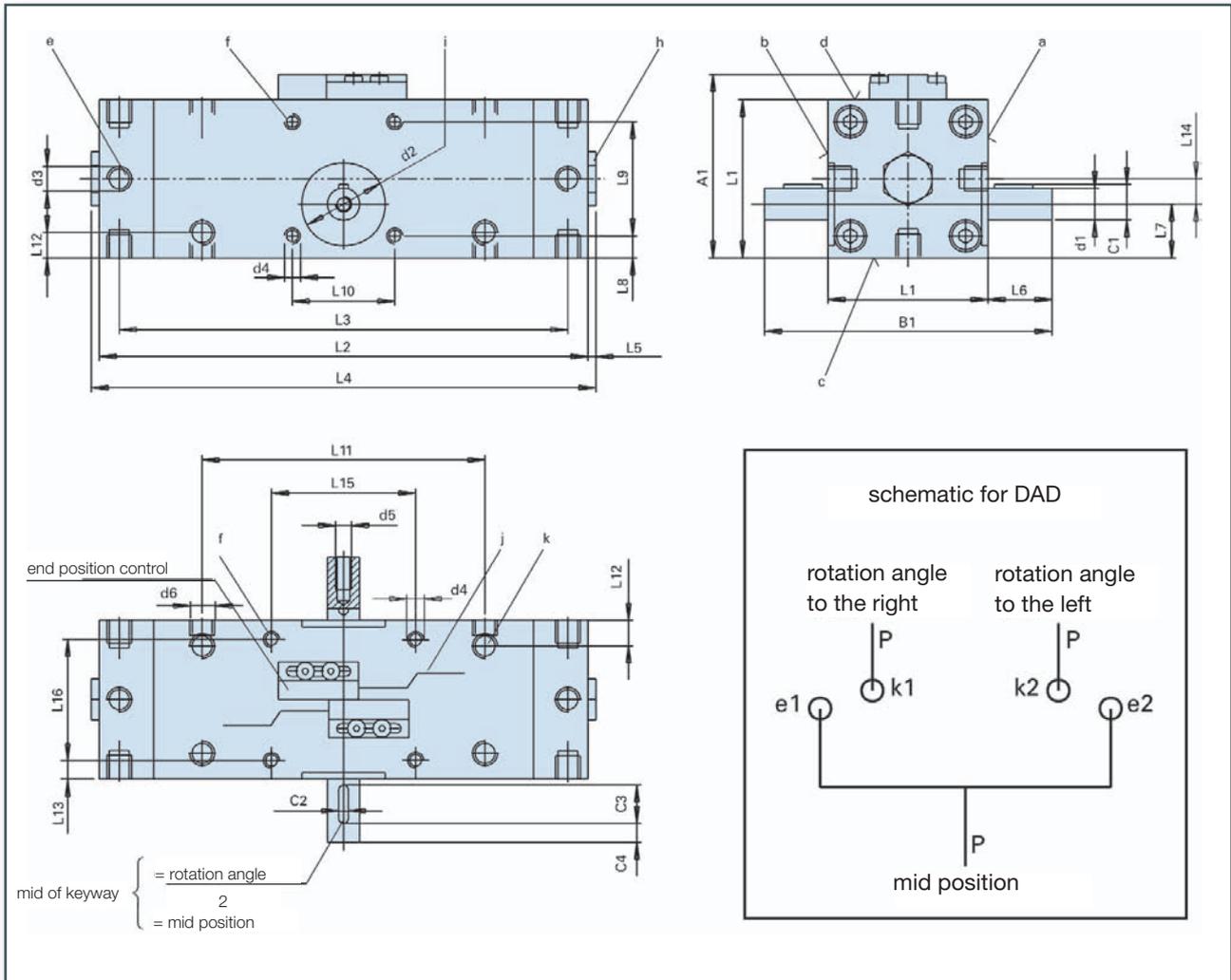
Actuators with mid position are available with torque of 50 Ncm, 200 Ncm and 500 Ncm. The standard models have rotation angles of 180° or 90°. Other angles on request.

For other details please consult the data sheets for Three Position Torque Cylinder DAD 0050, DAD 0200 and DAD 0500.



Three Position Torque Cylinder

DAD 0050, DAD 0200, DAD 0500



- a, b, c** mounting surface for model DAD 0050, DAD 0200
- a, b, c, d** mounting surface for model DAD 0500
- e** 4 threaded holes per head plate for air connection (mid position) and mounting alternatives
- f** 4 threaded holes for model DAD 0050 and DAD 0200 on side a and b for mounting alternatives
- f** 4 threaded holes for model DAD 0500 on side a, b, c, and d for mounting alternatives
- h** adjustment screw to limit the rotation angle (under cover screw)
- i** centre bore
- j** connection cable for end position control
- k** 2 threaded holes on side b, c, and d for air connection
- A** model with end position control
- B** model with 2 shaft ends
- C** model with keyway/key

Attention: Leave 0,4 mm (0,0157 in) for assembly insert, included in the scope of delivery.

model	DAD 0050-095	DAD 0050-185	DAD 0200-095	DAD 0200-185	DAD 0500-095	DAD 0500-185
rotation angle	95°	185°	95°	185°	95°	185°
ø d1	6 h6	6 h6	8 h6	8 h6	10 h6	10 h6
ø d2	10 J7 x0,5	10 J7 x0,5	16 J7 x0,5	16 J7 x0,5	26 J7 x0,8	26 J7 x0,8
d3	M5x4,5	M5x4,5	M5x5,5	M5x5,5	R1/8x8	R1/8x8
d4	M3x5	M3x5	M3x7	M3x7	M5x11	M5x11
d5	M3x5,5	M3x5,5	M4x9	M4x9	M5x10	M5x10
d6	M5x4	M5x4	M5x4	M5x4	R1/8x8	R1/8x8
L1	25	25	35	35	50	50
L2	105,9 ±0,5	117 ±0,5	137,5 ±0,5	156,6 ±0,5	191,6 ±0,5	225 ±0,5
L3	95,1 +0,5 -0,3	106,2 +0,5 -0,3	126,7 +0,5 -0,3	145,8 +0,5 -0,3	175,8 +0,5 -0,3	209,2 +0,5 -0,3
L4	111,5 ±0,7	122,6 ±0,7	143,1 ±0,7	162,2 ±0,7	197,2 ±0,7	230,6 ±0,7
L5	2,8	2,8	2,8	2,8	2,8	2,8
L6	9	9	15	15	20	20
L7	8,5	8,5	11,5	11,5	17	17
L8	3	3	3,5	3,5	7	7
L9	19	19	28	28	36	36
L10	14	14	15	15	32	32
L11	48,5	53,6	70,5	80,2	105,6	122,6
L12	4	4	4	4	7	7
L13	—	—	—	—	6	6
L14	—	—	—	—	11	11
L15	—	—	—	—	45	45
L16	—	—	—	—	38	38
A1	33 ±0,4	33 ±0,4	43 ±0,4	43 ±0,4	58 ±0,4	58 ±0,4
B1	43	43	65	65	89,8	89,8
C1	6,8	6,8	8,8	8,8	11,2	11,2
C2	2 N9	2 N9	2 N9	2 N9	3 N9	3 N9
C3	6	6	8	8	12	12
C4	2	2	5	5	6	6
F _A axial N	55	55	180	180	470	470
C _o radial N	220	220	770	770	1900	1900
weight in kg	0,2	0,3	0,6	0,7	1,2	1,3

Attention: end position control only possible in the end positions!

All dimensions in mm

Ordering Code

DAD 0050 - XXX - X - X
DAD 0200 - XXX - X - X
DAD 0500 - XXX - X - X

torque at 6 bar in Ncm rotation angle

Ordering Example

you order:
DAD 0200 - 185 - 1 - 1

we deliver:
Three Position Torque Cylinder model DAD 0200 with rotation angle 185°, end position control, 1 shaft end with keyway/key

- 0 = basic model
- 1 = with end position control (sheet "end position control")
- 0 = 1 shaft end straight, basic model
- 1 = 1 shaft end with keyway/key
- 2 = 2 shaft ends / 1x straight, 1x keyway/key
- 3 = 2 shaft ends / 2x keyway/key
- 4 = 2 shaft ends straight