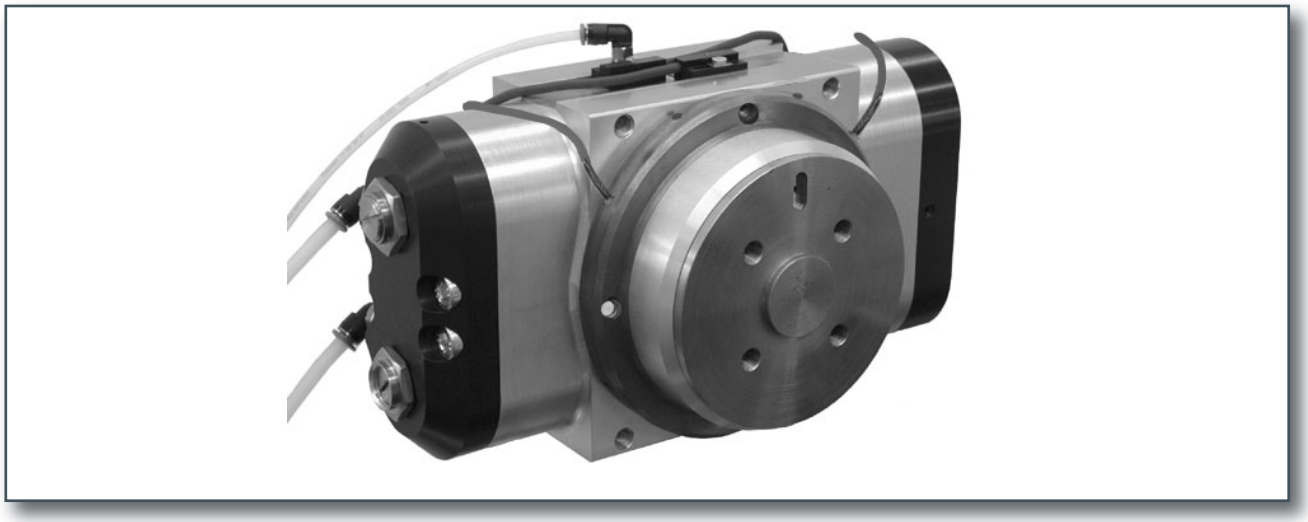
Hydraulic-Pneumatic Multi-Position Cylinder

HPAD 3000

Rotary Switching Drive



Our well-proven Hydraulic-Pneumatic Rotary Actuator HPA 3000 is an outstanding, position-precise, multi-position drive, and a rotary switching drive, which works by means of an additional structure which accepts the blocking and interlocking functions of the drive shaft. The turntable does not lift during the pivoting and switching operation, unlike traditional rotary indexing tables, therefore there is no change in the height position.

Special advantages are:	– The large torque in relation to weight and construction size. – The torque is 3000 Ncm. – The pivot angle steps are either 45 degrees or 90 degrees. – All step variants (forward or back-infinite) are possible. – The weight is only approx. 7,5 kg, and approx. 8,5 kg. – Position precision <0,01° – No lifting of the switching table. – The pivot speed is exactly adjustable. – The adjustable pivot times extend from min. 0,5 sec. to several minutes. – The end-position damping is progressive and adjustable. – The drive is maintenance free. – No functional disturbances through dirt accumulation, drive elements are encased.
ATTENTION:	– Before the pivoting of the turntable, the engaging jaw at the connection e2/P3 -> LED 1 must have compressed air applied. Vent for interlocking. For the cycle forward-switching it is necessary to run the drive back beforehand with vented engaging jaw e2/P3 -> LED 2 .

All advantages of our well known HPA design series, which have been well proven over a long time, have been taken over. (see catalog page 16-19)

Ordering Code

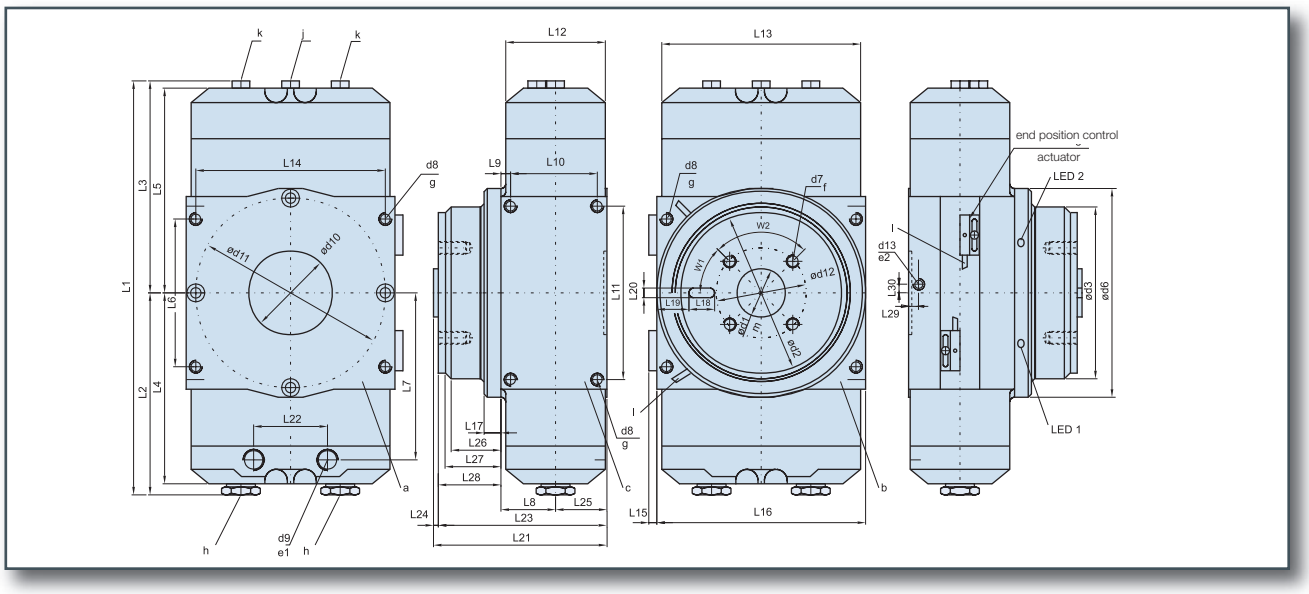
HPAD 3000 - XXX

Torque at 6 bar in Ncm | pivot angle steps 045° / 090°

Ordering Example

You order: HPAD 3000 - 090 —

We deliver: Hydraulic-Pneumatic Multi-Position-Cylinder, Typ HPAD 3000, with pivot angle steps 090°, with end position control for pivoting and interlocking



a, b, c	mounting surfaces		**h**	adjustment screws to limit the rotation angle (fixed setting)
e1	air connections 2x for actuation (forward/back)		**j**	adjustment screw for rotation speed
e2	air connection 1x for engaging jaw (on/off)		**k**	adjustment screws for end position damping
f	threaded bores for mounting 4x		**l**	connection cable for end position control
9	mounting alternatives, 4x threaded bores on mounting surfaces **a, b, c**		**m**	centering shoulder

model	HPAD 3000				
torque	3000 Ncm at 6 bar				
rotation angle	45°-steps	90°-steps		45°-steps	90°-steps
L1	247,6	257,8	d1	ø 30,0 h6	ø 30,0 h6
L2	120,7	125,8	d2	ø 100,0	ø 100,0
L3	126,9	132,0	d3	ø 107,0	ø 107,0
L4	113,8	118,9	d6	ø 130,0	ø 130,0
L5	122,4	127,5	d7	4x M8x17	4x M8x17
L6	92,0	92,0	d8	4x M8x15	4x M8x15
L7	98,9	104,0	d9	R1/4x10	R1/4x10
L8	34,0	34,0	d10	ø 52,0 x 2,0	ø 52,0 x 2,0
L9	6,0	6,0	d11	ø 118,0	ø 118,0
L10	54,0	54,0	d12	ø 56,0	ø 56,0
L11	108,0	108,0	d13	M5x5	M5x5
L12	62,0	62,0			
L13	123,8	123,8	W1	45°	45°
L14	118,0	118,0	W2	4x90°	4x90°
L15	5,0	5,0			
L16	130,0	130,0			
L17	10,5	10,5			
L18	16,0	16,0			
L19	20,0	20,0			
L20	6,0 N9	6,0 N9			
L21	108,0	108,0			
L22	46,0	46,0			
L23	105,0	105,0	F_A axial N	5000	5000
L24	3,0	3,0	C_0 radial N	15000	15000
L25	32,0	32,0	weight kg	ca. 7,5	ca. 8,5
L26	31,0	31,0			
L27	34,8	34,8			
L28	39,0	39,0			
L29	10,0	10,0			
L30	10,0	10,0			

LED 1 LED – signal engaging jaw ON, turntable unlocked, ready for pivoting

LED 2 LED – signal engaging jaw OFF, turntable locked

ATTENTION:
Before the pivoting of the turntable, the engaging jaw at the connection e2/P3 must have compressed air applied.
Vent for interlocking.

For the cycle forward-switching it is necessary to run the drive back beforehand with vented engaging jaw e2/P3.

All dimensions in mm