

Pneumatic actuator

Kinetrol, Pneumatic

AT 3841

Internet_Variants

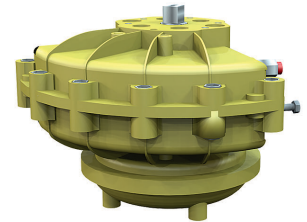
Range of Application

Pneumatic actuator for on-off and control of ball, butterfly and plug valves or where 90° rotation is demanded. With spring opening or closing.

Program text

UEC.22 Actuator for valve, pneumatic, two position with feather return.

Actuator AT3841 pneumatic, single acting for on-off and control of ball valves and butterfly valves or where 90° rotation is required.



Quality Assurance

Solenoid valve connection and actuator top acc. to VDE/VDI 3845 (NAMUR), adapter is required.

Mounting flange and stem square drilled acc. to ISO 5211 and DIN 3337, adapter is required.

CE-marking

The actuators meet the demands from the machine directive, MD 2006/42/EC and ATEX 94/9/EC.

All Kinetrol pneumatic actuators are classified for use in potentially explosive atmospheres as Group II Category 2, suitable for zones 1, 2, 21 and 22 in accordance with Annex VIII of Directive 94/9/CE (ATEX).

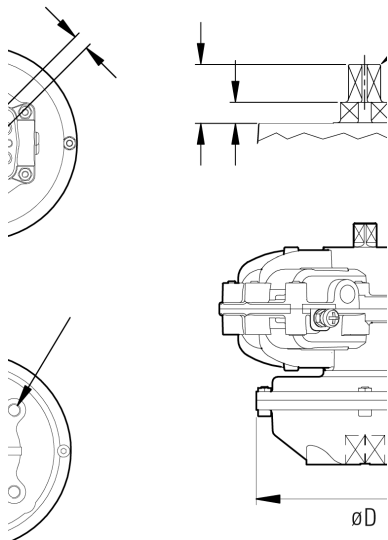
Material Specification

Detail	Quantity	Material	Surface treatment
Body	1	Actuator 0-7 ZL16-BSEN1774:1998, bigger aluminum LM24	Epoxy anodized C4 according to EN-ISO 12944-2
Wiring	1	Stainless steel	
Springs	1	Spring steel, Ur type	Pre-stressed

Dimension and weight

Actuator 3841-												
	3	5	7	8	9	10	12	14	15	16	18	20
□D	10	11	15	17	20	20			40	52	52	
	7	8	2	4	0	6	258	258	0	5	4	524
E	10	11	18	19	21	28			50	48	67	113
	2	7	2	7	8	5	293	337	3	6	2	2
Weight	2,0	2,6	7,2	7,2	10,	14,	27,9	71,2	10	12	24	
	8	3	6	3	3	5	5	5	5	3	0	479

Measurements in mm, weight in kg



Function and Design

The actuator only has one movable part which entails an outstanding operational dependability. The stroke length is adjusted simply with the help of stop screws on the side of the actuator. All actuators are function and tightness tested from a factory which guarantess 4 million operations. The actuators are modular and can be provided with limit switch box, positions, valve positioners and solenoid valve. Mounting holes according to ISO 5211 and DIN 3337, for standardized mounting against the valve.

Headboards with adjustable screws for stroke length (5-10°).

Actuators AT 3841 single acting:

The actuator is delivered as a standard with a spring closing function. If a spring opening function is requested instead, it has to be specified while ordering.

Technical Information

Pressure:	Supply pressure max 8 bar (e). Higher pressure on request.
Temperature:	-20°C to +80°C. Other ranges on request.
Manoeuvre medium:	Air or inert gases, purity at least 40 micron. (No requirements of mist lubrication). Oil or water.

Torque (Nm) AT 3841 singel acting

Actuator Standard spring set	Air Pressure (bar)						Spring return Same as for air
	3,5		4,5		5,5		
	Start	Sto p	Start	Sto p	Start	Sto p	
AT 3831-1	1,5	0,9	1,9	1,5	2,3	1,8	
AT 3831-2	3,0	1,4	3,8	2,4	4,7	3,7	
AT 3831-3	6,3	4,1	8,1	6,4	10,3	8,7	
AT 3831-5	13,0	8,5	16,4	13,0	20,9	17,5	
AT 3831-7	30,5	19,8	40,7	30,5	50,8	42,4	
AT 3831-8	52,7	36,8	67,2	51,4	81,3	65,5	
AT 3831-9	61,0	50,3	81,9	71,2	0	93,8	
AT 3831-10	107	78	136	114	164	143	
AT 3831-12	145	111	191	158	238	204	
AT 3831-14	374	249	479	367	588	478	
AT 3831-15	-	-	835	595	1002	787	
AT 3831-16	864	576	1097	832	1321	1	
AT 3831-18	1875	125	0	184	2954	7	
AT 3831-20	-	-	4514	3	5456	4	
AT 3831-30	-	-	6771	513	8184	669	
				4		6	

Air consumption

Actuator size 3840-	Operating time/Consumption by 5,5 bar	
	Time in seconds	Air consumption
0	-	0,021
1	-	0,141
2	-	0,276
3	0,12	0,550
5	0,19	0,995
7	0,32	2,69
8	0,48	4,16
9	0,66	5,71
10	0,89	9,15
12	1,3	12,4
14	3,0	27,9
15	5,4	52,1
16	-	72,0
18	-	337,9
20	-	337,9
30	-	506,8

To calculate the exact time the valve's torque is required, contact Armatec.

Dimensioning AT 3840 double acting

Actuator size	5	7	8	9	10	12	14	15	16	18	20
Ball valve											
AT 3502	DN 10-25	32-50		65	80	100	125-150	200			
AT 3507	DN 8-20	32-40		50		65	80-100	200			
AT 3582, 3585	DN 15-20	25-40	50-65		80	100	125-150				
AT 3582HT, 3585HT	DN 15	20-40	50	65		80	100-125	150			
Butterfly											
AT 2282	DN				80-100	125	150-250	300	350	400	500
AT 2310-2344	DN 50-65	80-100	125	150	200		250-300	350-400	450-500	600-700	

Accessories and Options

Accessories

- Visual position indicator.
- Emergency gear shift between actuator and valve.
- Internally connected pressurized air tank for emergency operation.
- Block for control timing
- Valve block for air evacuation from the acuator without disassembly of the control air lines.
- Inductive or mechanical limit switch.
- Valve positioner, 4-20mA or 3-15 psi.
- Limit switch box.
- 180° rotation
- "Spring to center"

Installation

The actuator can be installed indoors or outdoors in any position. All though mounting the valve with the air connections upwards should be avoided to minimize the risk of water and dirt to get inside of the valve.

Maintenance and spare parts

The actuator should be disconnected electrically and pneumatically before assembly or disassembly is started. The actuator should be mounted with even spaced distances.

Spare parts

The repair kit includes the necessary soft parts.

Marking

Article number, series number, max allowed operation pressure.

Manufacturer, year of production.

CE-marking, Ex marking including class.

How to order

Example: AT 3841-5	
AT 3841	5
Fig. nr	Size