

Pneumatic actuator

Kinetrol, pneumatic

AT 3840

Internet_Variants

Range of Application

Actuator for on-off and control of ball, butterfly and plug valves or where 90° rotation is demanded. Without spring return.

Program text

UEC.21 actuator for valve, pneumatic two position without spring return

Actuator AT 3840 pneumatic, double acting for on-off and control of ball and butterfly valves or where 90° rotation is required.

Quality Assurance

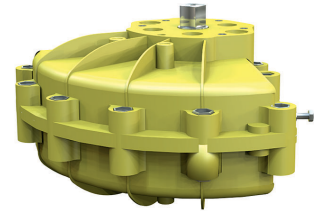
Solenoid valve connection and actuator top acc. to VDE/VDI 3845 (NAMUR), adapter is required.

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

CE-marking

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

All kinetrol pneumatic actuators are classified for use in potentiella explosive environments like group 2, category 2, suitable for zones 1, 2, 21 and 22 in accordance with Annex VIII, directive 94/9/CE (ATEX).



Material Specification

	De tai l	N o	Material	Surface treatment
1	Bo dy	1	Actuator 0-7 ZL16-BSEN1774:1998, larger actuators aluminum LM24	Epoxy anodized C4 according to EN-ISO 12944-2.
2	Wi ng Sp rin	1	Stainless steel	
3	gs	1	Spring steel, Ur type	Pre-stressed

Dimension and weight double acting

Actuator 3840																	3
	0	1	2	3	5	7	8	9	10	11	14	15	16	18	20	0	
A	32	72	91	3	11	13	17	20	22	3	9	38	43	53	68	680	6
B	31	59	76	91	3	6	7	7	9	8	3	30	35	42	55	554	8
C	36	38	50	60	67	0	0	6	1	6	0	5	4	0	620	0	
Weight	0,12	0,29	0,46	0,73	1,28	3,30	2,78	4,16	5,6	6,9	13,4	21,0	37,4	17,4	165,6	7,3	

Measurements in mm, weight in kg

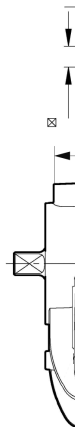
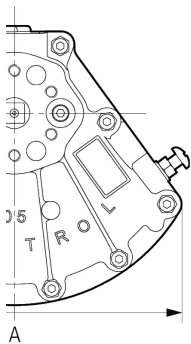
Function and Design

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°).

Technical Information

Pressure:	Supply pressure max 8 bar (e). Higher pressure on demand.
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.



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Torque (Nm) AT 3840 double acting

Actuator	Pressure (bar)				
	3	4	5	6	7
AT 3840-0	0,35	05	0,6	0,75	0,9
AT 3840-1	2,6	3,5	4,5	5,6	6,7
AT 3840-2	4,6	6,4	8,2	40,2	12,1
AT 3840-3	9,6	13,4	17,4	21,3	25,3
AT 3840-5	20,0	27,5	35,0	43	46,5
AT 3840-7	48,5	66,5	85,5	105	124
AT 3840-8	82,3	111,4	140,5	169,0	198,7
AT 3840-9	102,0	140,0	179,0	220	261
AT 3840-10	172	232	294	355	416
AT 3840-14	560	760	975	1180	1375
AT 3840-15	937	1287	1632	1982	2337
AT 3840-16	1310	1750	2200	2650	3100
AT 3840-18	2750	3750	4850	5950	6900
AT 3840-20	5310	7230	9090	10960	12760
AT 3840-30	7695	10845	13635	16440	19140

Air consumption

Actuator size 3840-	Operating time/Consumption by 5,5 bar	
	Time in seconds	Air consumption in liters
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	-	178,9
20	-	337,9
30	-	506,8

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

Dimensioning AT 3840 double acting

Actuator size	3	5	7	8	9	10	12	14	15	18
Ball valve										
AT 3502	DN 8-20	25-50	65	80	100	125-150	200			
AT 3507	DN 8-20	25-40		50-65	80	100		150-200		
AT 3582,3585	DN 15-20	25-40	50-65	80-100	125	150	200		250-300	
AT 3582HT, 3585HT	DN 15-20	25-32	40-65		80	100	125	150		
Butterfly valve										
AT 2282	DN			80-100	125	150-200	250	300-350	400	500
AT 2310-2344	DN	50-100	150	200			250-300	350-500		

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 actuator 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 3840-5	
AT 3840	5
Article no	Size