

Internet_Variants

Range of Application

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

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

Actuator AT 3830 Pneumatic, double 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).

Mounting flange and stem square drilled acc. to ISO 5211 and DIN 3337.

CE-marking

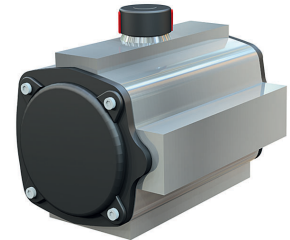
The actuators meet the demands from PED, AFS 1999:4 §8, The Pressure Equipment Directive and the machine directive, MD 2006/42/EG and ATEX 94/9/EC.

Actuators in the sizes 10 to 300 are classified as category SEP in accordance with the demands from PED 97/23/EC.

Actuators in the sizes 500 to 4000 are classified as category 1.

All Actregs 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).

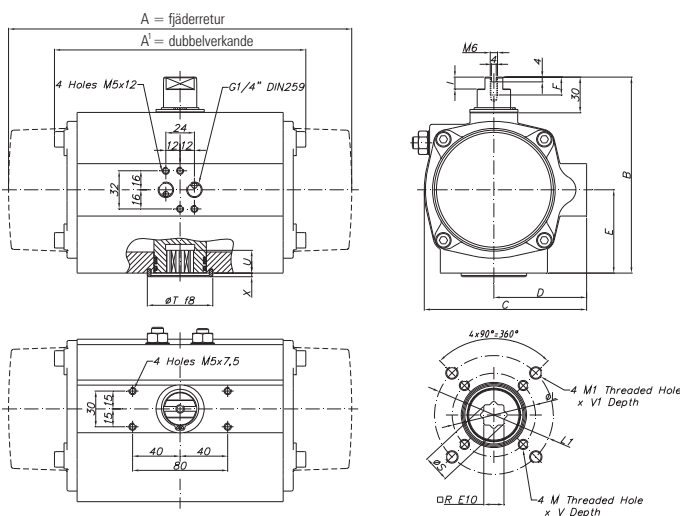
Certificate from Germanischer Lloyd (GL). Lloyd's register of shipping can be delivered as an option.



AT 3830

Material Specification

	Detail	Quantity	Material	Surface treatment
1	Body	1	Aluminium	Anodized C3 according to EN-ISO 12944-2
2	Wing	1	Steel	Electroless nickel plated.
3	Springs	2-8	Spring steel	Pre-stressed
4	End caps	2	Aluminium	Epoxy coated



Dimension and weight

Actuator size	3830	3831						
	A	A'	B	C	D	E	F	I
10	100		76	56	33	23	9	6
20	145	163	96	76	48	34	9	6
40	158	195	115	91	56	45	9	6
80	177	217	137	111	66	55	12	12,5
130	196	258	147	122	71	60	15	8
200	225	299	165	135,5	78	70	15	10
300	273	348,5	182	152,5	86	80	16	12
500	304	397	199	173	96	85	17	15
850	372	473	221	191,5	106	98	15	15
1200	439	560	249	212,5	116	114	16	15
1750	461	601	280	242,5	131	130	16	15
2100	504	698	313	276,5	148	147	16	15
2500	518	738	383	356	177,5	176,5	16	15
4000	630	940	434	415	213	201	16	15

Measurements in mm, weight in kg

Dimension and weight

Actuator size									Weight	
	R	ØS	ISO	ØL	MxV	ØT	X	U	3830	3831
10	9	12,5	F03	36	M8x5	-	-	2	0,64	
1								1		
20	1	14,7	F04	42	M5x10	30	3	7	1,4	1,54
1								1		
40	1	14,7	F04	42	M5x10	30	3	7	2,1	2,32
1								1		
80	7	22,5	F05/07	50	M6x10	55	3	9	3	3,65
1								2		
130	7	22,5	F05/07	70	M6x10	55	3	2	3,8	4,8
1								2		
200	7	22,5	F07/10	70	M10x16	55	3	3	5,6	7,3
2								2		
300	2	28,5	F07/10	70	M8x14	70	3	9	8,5	10,8
2								3		
500	2	28,5	F10	102	M10x16	70	3	2	11,21	15,36
2								4		
850	7	36,5	F10/12	102	M10x17	85	3	0	16,9	22,2
3								4		
1200	6	48,5	F10/14	102	M10x17	100	4	9	25,8	34,3
3								5		
1750	6	48,5	F14	140	M16x26	100	4	0	32,5	46
4								5		
2100	6	60,2	F16	165	M20x26	130	4	0	49,7	68
4								5		
2500	6	60,2	F16	165	M20x29	130	4	8	69,6	99,9
5								6		
4000	5	72,5	F16/25	165	M20x30	200	4	0	129,4	182,9

Measurements in mm, weight in kg

Rätten till ändringar utan föregående meddelande förbehålls.
 Armatec ansvarar inte för eventuella tryckfel eller misstänksänd.
 Dokumentet får kopieras endast i sin helhet.

Function and Design

Actuator with linear torque curve. Three point controlled of the pistons for low friction between the body and pistons. Mounting holes according to ISO 5211 and DIN 3337, for standardized mounting to the valve. End caps with adjustable screws for stroke length (5°). Mechanic end points as a standard. The piston force is transferred through the rotary axle to the valve stem (90° + 1°-0,5°). Actuator top and solenoid valve connection according to NAMUR (VDE/VDI 3845).

Actuators Actreg AT 3831 single acting:

The actuator is provided as a standard with spring closing function. If a spring opening function is required this has to be stated when ordering.

Technical Information

Pressure:	Supply pressure max 8 bar (e). Higher pressures on request.
Temperature:	-30°C to +100°C. Other ranges on request.
Operational medium:	Air or inert gases, purity at least 40 micron. (No requirements of mist lubrication). Oil or water.

Torque (Nm) AT 3830 double acting

Actuator	Pressure (bar)					
	3	4	5	6	7	8
AT 3830-10	6	9	11	12	13	14
AT 3830-20	9,7	13	16,2	19,5	23	26
AT 3830-40	20,3	27,1	33,9	41	47	54
AT 3830-80	38,5	51,3	64,1	77	90	103
AT 3830-130	59,1	78,7	98,4	118	138	157
AT 3830-200	88	117	146	175	205	234
AT 3830-300	145	194	242	291	339	388
AT 3830-500	217	289	361	433	505	577
AT 3830-850	359	479	598	718	837	957
AT 3830-1200	519	692	865	1038	1211	1384
AT 3830-1750	707	942	1178	1413	1649	1884
AT 3830-2100	1086	1448	1810	2172	2534	2896
AT 3830-2500	1730	2307	2884	3461	4038	4614
AT 3830-4000	2408	3210	4013	4816	5618	6421

Air consumption

Actuator	Operating time in s. at 8 bar ADA/ASR		Cylindervolume in liters	
	Open	Close	Open	Close
10	0,03	0,07	0,035	0,028
20	0,04 / 0,12	0,09 / 0,18	0,13	0,09
40	0,08 / 0,2	0,08 / 0,29	0,27	0,23
80	0,11 / 0,27	0,1 / 0,4	0,64	0,47
130	0,15 / 0,32	0,15 / 0,5	0,77	0,76
200	0,15 / 0,5	0,22 / 0,6	1,19	1,2
300	0,3 / 0,7	0,4 / 0,85	1,96	1,73
500	0,4 / 0,9	0,5 / 1,1	2,95	2,74
850	0,8 / 2,2	0,9 / 2,6	4,7	3,86
1200	1,2 / 2,3	1,5 / 2,8	6,95	4,64
1750	1,8 / 2,8	2 / 3,2	9,8	9,3
2100	2,3 / 3,3	2,6 / 3,7	11,6	10,2
2500	2,8 / 3,8	3,1 / 4,2	32	25
4000	3 / 4,3	3,5 / 5	33,2	27,5

The current air consumption is obtained through multiplying the cylinder volume stated above with the available operational pressure in bar.

Dimensioning AT 3830 double acting

Actuator size	10	20	40	80	130	200	300	500	850	1200	2100	2500	4000
Ball valve													
AT 3502-3552	DN 8-25	25-32	40-50	65	80		100-150	200	200				
AT 3533A-3534A	DN		10-15	20-25			32	40					
AT 3535A	DN 15-25		32-50		65								
AT 3580-3587	DN 15	20	25-40	50	65	80	100-125	150	200		250	300	
Butterfly													
AT 2282	DN					80	100-125	150-200	250	300	350	400	500
vid Δp 10 bar													
AT 2310-2344	DN			50-125	150		200		250-350	400	5-600	700	800
vid Δp 10 bar													

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.

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

Actuator

Actreg, Pneumatic

AT 3830

The repair kit includes the necessary soft parts.

Marking

Article no., series no., max allowed working pressure.

Manufacturer

CE-marking

How to order

Example: AT 3830-40	
AT 3830	40
Fig. nr	Size