

Range of Application

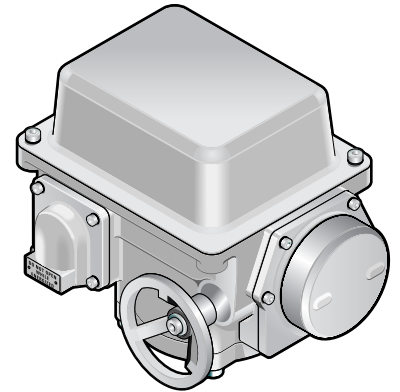
Actuator for 100% control of ball, butterfly and plug valves.

Quality Assurance

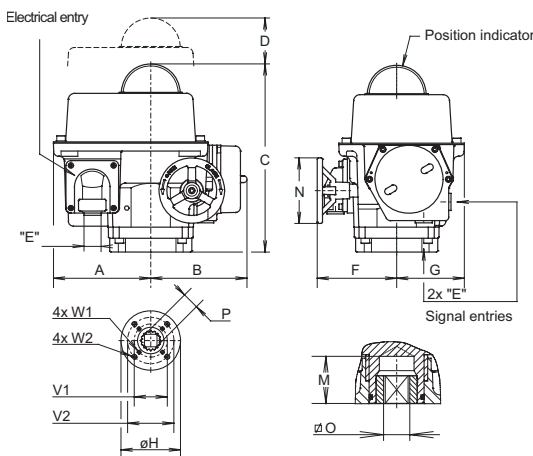
ISO 9001, 5211 and CE-marked.

Material Specification

	Detail	Material	Surface treatment
1	Body	Aluminium	Two component polyurethane
2	Cover	Steel	Galvanized and two component polyurethane
3	Fastenings	Stainless steel	



AT 3852



Dimension and Weight

Fig. no.	A	B	C	D	F	G	H	M	N	O min	O max	P	V1	V2	W1	W2	W kg
AT3852ELQ100	148	147	287	100	118	103	125	50	100	19	19,11	25,2	70	102	M8x13	M10x16	13
AT3852ELQ200	148	147	287	100	156	103	125	50	180	19	19,11	25,2	70	102	M8x13	M10x16	14
AT3852ELQ300	148	147	287	100	156	103	125	50	180	22	22,13	28,2	70	102	M8x13	M10x16	14,5
AT3852ELQ500	182	187	335	100	219	132	175	60	300	27	27,13	36,2	102	140	M10x16	M16x25	28
AT3852ELQ800	182	187	335	100	256	132	175	60	400	36	36,16	48,2	102	140	M10x16	M16x25	30

Measurements in mm, weight in kg

Function and Design

Standard design

Actuator in 5 sizes for 100% duty service and 0-90 ° motion. Multi-voltage connection for 115, 230 VAC (1-phase) and 400 VAC (2-phase), and 24 VDC. Position preference is adjusted by limit switch, limit stop or electronic adjustable torque switch. Motor hood with dome and underlying protected visual indication. The motor is together with the other electrical components completely separated from the gear housing. The motor is of soft starting type with a self-inhibiting gear box and with high transmission accuracy.

Separate connections for supply and signal voltage. Heaters to keep the motor space free from moist. With manual emergency manoeuvre and hand wheel

which is not rotating at electrical operation. Measurements for connection of the actuator onto valve are acc. to ISO 5211/DIN 3337.

Technical Information

Actuator size	100	200	300	500	800
Torque Nm:	100	200	300	500	800
Speed/90° Sec:					
max load	10	14	18	22	36
no load	6	8	13	17	28
Torque switch	2	2	2	2	2
Limit switch	2	2	2	2	2
Mechanical stop +/-10°	2	2	2	2	2
Visual indicator	yes	yes	yes	yes	yes
Emergency manouvre	yes	yes	yes	yes	yes
ISO/DIN-connetion for	F07/F10	F07/F10	F07/F10	F10/F14	F10/F14

Standard performance

	Actuator size 100-800
Duty cycle	100% ED
Protection class	IP 67
Temperature	-20°C to +70°C
Heating element	10 Watt
Overload protection	Electronic adjustable torque switch
Gear change	Precision ellipse, Harmonic Drive
Limit switch	2xSPDT, micro switch
Torque switch	Electronic adjustable, 50-100%
Voltage range	AC -115,230,(+10%/-6%) 50/60 Hz (L1,N) AC -400V(+10%/-6%) 50/60Hz (L1,L2) DC -24V(+/-10%)
Outside steel parts	Stainless steel

Electrical data

Actuator size	Voltage	100	200	300	500	800	Terminal no..
Current max (A)	115 VAC	1	1	1	1,7	1,7	0-1
	230 VAC	0,5	0,5	0,5	0,9	0,9	0-2
	400 VAC	0,3	0,3	0,3	0,5	0,5	0-3
	24 VDC	4,1	4,3	4,0	5,3	5,1	4-5
Power nom. (W)		98	102	96	130	125	

NOTE control voltage 24VDC.

Dimensioning

Actuator size	100		200		300		500		800	
Valve	Δp , bar									
Ball valve 3-pcs* AT 3502-3552 reduced bore	25	DN	-65	80-100	125-150	200	-			
Ball valve flanged* AT 3580-3585 full bore	16	DN	-50	65-100	125	150	200			
Butterfly valve AT 2310-2344 soft seal	10	DN	50-150	200	250	300	350-400			

*) At high frequency operation the ball valves shall be provided with high-temperature seat rings.

Accessories and Options

Performance	Fig. no.
- Extra limit switch at voltage > 24V	-QES101
- Speed control	-QSC102
- Feedback potentiometer, 10 k Ω	-QPOT103
- Position indicator 4-20mA	-QPT104
- Positioner 4-20 mA, digital	-QMOD106
- Local operating switch (local/remote), EEX	-QLC107
- Status module	-QSTM110
- ProfiBus	-QFB111
- Foundation FieldBus	-QFFB112
- Protection class, IP 68	

EX-execution AT 3852EX

EX-class II2G	EEx d IIB (also for local operating switch QLC 107)
Certificat no.	KEMA 03ATEX 2128X
For actuator size	100 - 800
Voltage	115, 230 och 400 VAC 24 VDC
Technical data	acc. to standard actuator AT 3852
Electrical data	acc. to standard actuator AT 3852
Dimensioning	acc. to standard actuator AT 3852

EEX d-design of control device allows all standard accessories to be mounted in the motor-space.

Installation

During all work with the actuator the power must be disconnected.

Check that the actuator opens the valve counter-clockwise and closes the valve clockwise, and that the mounting is properly done. The actuator must be connected as per the wiring diagram.

Check that the requested supply voltage is connected to the right block numbers. Installation with motor downwards should be avoided.

Turn the valve with the control unit's hand wheel to centre position. See indication on top of actuator.

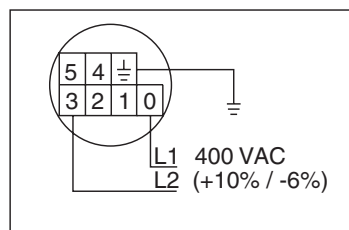
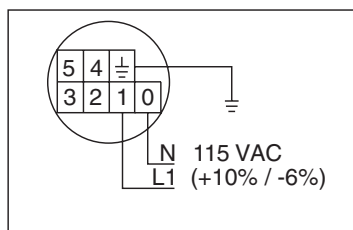
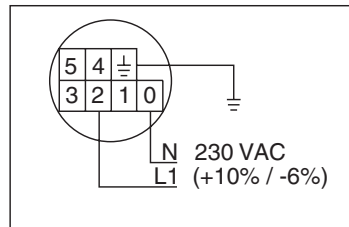
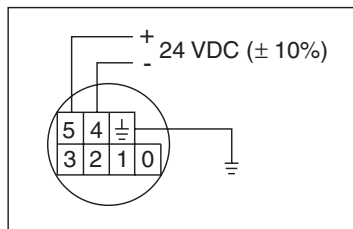
Cable entries must comply at least to the lowest protection class of devices.

EX actuator must be connected as per applicable standards.

Min. 5 threads, min. 8 mm.

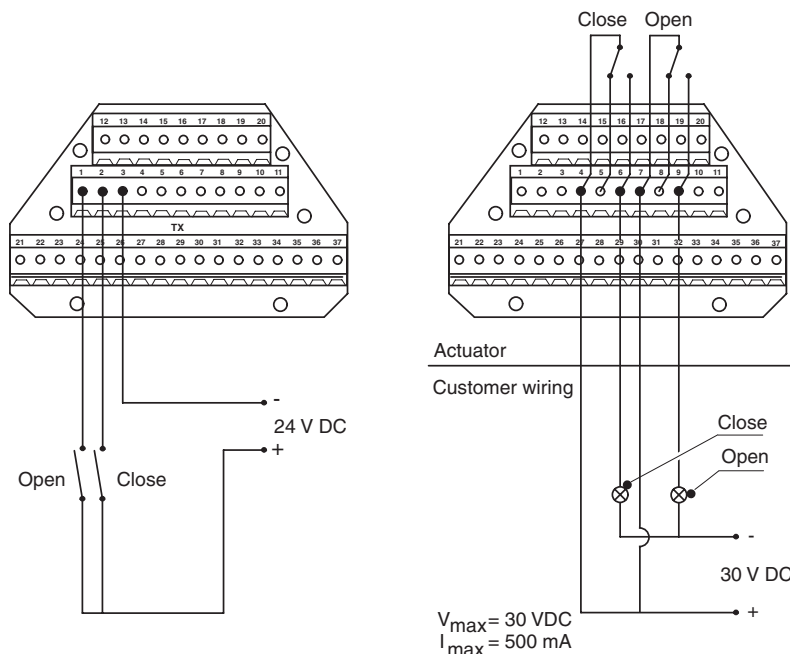
Supply voltage

ELQ is available with different supply voltages AC/DC, see chart below.



Control Signal and limit switches

24VDC signal to terminals 1 and 3 generate a counter-clockwise motion on the drive shaft, the valve opens. 24VDC signal on terminals 2 and 3 generate a clockwise motion, the valve closes. Limit switches indicating open / closed position is available as changing switches, NO and NC. Diagram shows switches in neutral position.



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

Actuator

ELQ, electrical

AT 3852

Marking

Article no., manufacturer, model, serial no., voltage and current ratings.

EX-device also with EExd IIB T4, certificate no. and test station.

Wiring diagram is located in motor space.

How to order

Example: AT 3852-100QPOT103		
AT 3852	-100Q	POT103
Fig. no.	Actuator size	Accessories