

# Electric actuator

AT 3941 (100-800 Nm)

## Internet\_Variants

### Range of Application

Weather-proof actuator for on-off or control of ball- and butterfly valves. Torque 45-150 Nm.

### UEC.11 actuator for valve, electric, two-position, without spring return

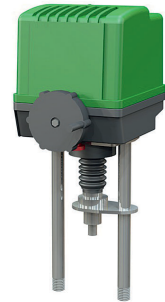
Actuator Bernard Electrical AT 3900 for 90°. Maneuvering of ball-, butterfly- and plug valves.

### Quality Assurance

#### CE-Marking

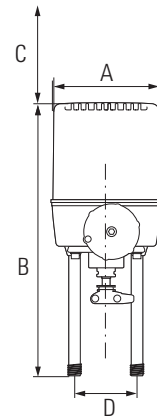
EC Directives 2004/108/EC, 2006 /95 /EC and fulfills the EN 61000-6-4, EN 61000-6-2, EN 60034-1 and EN 60529.

IP 67 rated.



### Material Specification

	Detail	Material	Surface treatment
1	Body	Aluminium	Epoxy painted RAL 2010
2	Cover	Aluminium	Epoxy painted RAL 2010
3	Drive shaft	Steel	Untreated



### Dimension and Weight

Actuator / Fig nr	Standard drive socket	A	B	C	Weight
3941-10		185	225	290	10
3941-15		185	225	290	10
3941-25		225	315	320	13
3941-50		260	350	330	15
3941-80		260	350	330	15

Measurements in mm, weight in kg. \*Possible to get in different sizes.

### Function and Design

#### Standard version

Reversible actuator in four sizes, for 0-90° movement, adjustable through a com-

combination of cams, mechanical end stop and/or torque switch.

The actuator is a compact combination of electric motor with thermal overload protection and self-locking, permanently lubricated worm gear. Standard with manual emergency operation and position indicator.

The actuator mounting-dimensions in relation to the fittings are according to ISO 5211.

Design lifetime 20 000 cycles for On/Off or 300 000 starts for modulating. Tested according to EN 15714-2 class A and B

### Standard performance

Standard performance	
Motor duty	S4-30% ED. 12 (on/off), S4-50% ED. 12 (positioning/modulating)
Enclosures	IP68
Temperature	-20°C to +60°C
Anti condensation heater	Yes
Overload protection	Thermostats
Permanently lubricated gear	Gear
Cable entries	2 st.M20x1,5 for On/Off, 3 pcs for regulating
End position switches	250VAC-5A / 48VDC-2,5A
Torque	Yes. 250Nm and above.
Terminal block	8 connections

### Technical Data

Actuator 3900 on/off	Torque Nm		Operating time s	ISO-5211	230 V AC 50 Hz Ampere			400 V AC 50 Hz Ampere			24 V DC
	Start	Stop			Start	Stop	Kw	Start	Stop	Kw	Operating time
4	45	45	6	F05/07	0,5	0,4	0,02	-	-	-	-
6	60	60	6	F05/07	0,9	0,6	0,03	0,5	0,3	0,03	6
10	100	100	6	F05/07	1,7	1,2	0,06	1,1	0,6	0,10	-
10	100	100	35	F05/07	0,9	0,6	0,03	0,5	0,3	0,03	35
15	150	150	25	F05/07	0,9	0,6	0,03	0,5	0,3	0,03	15

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### Installation

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

The actuator must be connected as per the wiring diagram.

Each actuator must be powered by individual switch or relay contact, minimum 16A, to prevent cross-feed between the actuators.

At outdoor installation, the actuator should be protected by a roof or cap, alternatively choose an actuator with protection class IP67.

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 device.  
Always connect the heater.  
Check that the actuator turns the valve in the desired direction.  
The correct limit switch (open or closed) shall break the motor current.  
Cable entries must comply at least to the lowest protection class of devices.  
See the instructions for start-up , storage and maintenance.

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## Marking

Article number, manufacturer, serial number, voltage and current.

Wiring diagram is placed by the motor at delivery.