

## 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

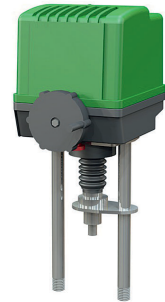
Actuator Bernard Electrical AT 3900 for 90°. Maneuvering of ball-, butterfly- and plug valves.

### Quality Assurance

#### CE-Marking

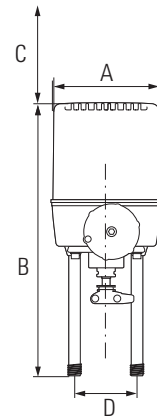
EC Directives 2004/108/EC, 2006 /95 /EC and fulfills the EN 61000-6-4, EN 61000-6-2, EN 60034-1 and EN 60529.

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             |

### 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             |

### 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.

## 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.

## 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.

## 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.

## Marking

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

Wiring diagram is placed by the motor at delivery.