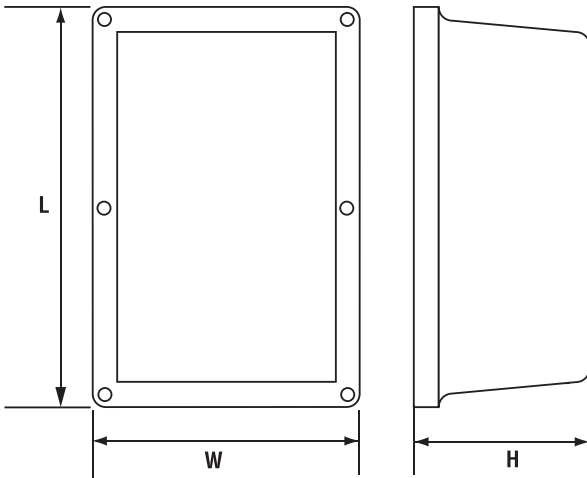




Application

The ZS-CCV... weather shield provides moderate protection for valves which are mounted outdoors. This product is designed as a water tight enclosure. The housing allows easy mounting over the actuator, while allowing easy viewing of the actuator in operation. Weather shield for PICCV/CCV to provide protection for actuators in outdoor applications.



| Specifications | |
|--------------------------|-----------------------------------|
| Cover | PETG with UV resistant smoke tint |
| Perimeter Gasket | Silicon Rubber |
| Rubber Gasket | Silicon Rubber |
| Spring Clips | Stainless Steel |
| Temperature limitations: | -22°F to 122°F (-30°C to 50°C) |
| Plate (ZS-CCV-100) | Aluminum |
| Plate | Galvaneal w/black powder coat |

| Part Number | Actuator |
|----------------|-------------|
| ZS - CCV - 90 | LF, AF |
| ZS - CCV - 100 | LRB(X), ARX |
| ZS - CCV - 110 | AFRB(X) |

| L | W | H |
|--------------|-------------|------------|
| 16.25" [413] | 8.75" [222] | 4.5" [114] |

Parts List

- Cover including Rubber Perimeter Gasket, Rubber Gasket
- Back Plate
- Anti-Rotation Post with screw and lock washer
- Valve Gasket
- Assorted Cap plugs for unused holes

- Screws AF - 2 bolts with nylon insert locking nuts
- LRB(X), ARX - 1 screw, 1 washer

No weather shield available at this time for the TF and TR actuators. Designed for NEMA 4 specifications.

* Cannot be used with B6 series.

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Auxiliary Switches S1A, S2A

For non-spring return direct-coupled actuators

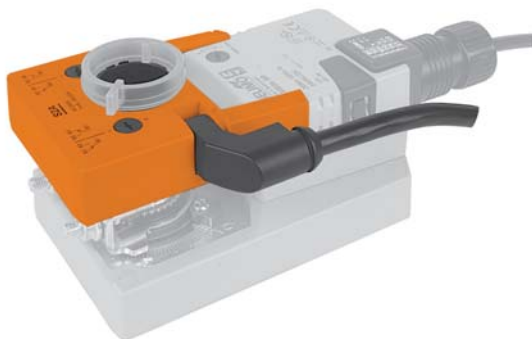
Application

The S1A and S2A auxiliary switches are used to indicate when a desired position of a valve is reached or to interface additional controls for a specific control sequence.

Operation

The S1A and S2A auxiliary switches are mounted onto the direct coupled actuator. The switches are modular units that mount directly onto LR and AR type actuators and are locked into place by guiding grooves on the sides of the actuator.

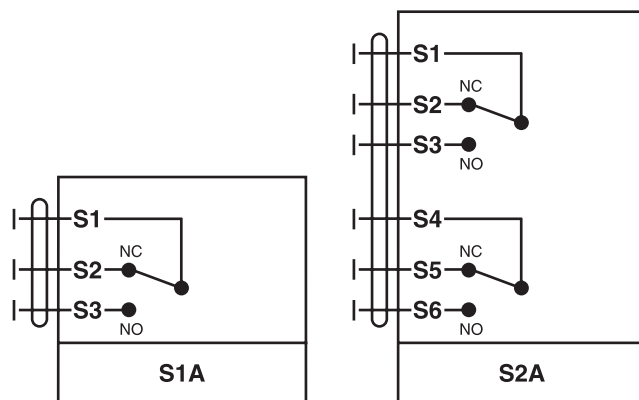
A driver disk is attached to the actuator handle and offers direct transmission of the actuator position to the micro switch cams. The switching points can be set over the full scale of 0 to 1 simply by adjusting the slotted discs.



| Types | | | |
|---------|--------|------------------------------|--|
| S1A | 1 SPDT | 3 ft, 18 GA Appliance Cable | |
| S1A/300 | 1 SPDT | 6 ft, 18 GA Appliance Cable | |
| S1A/500 | 1 SPDT | 10 ft, 18 GA Appliance Cable | |
| | | | |
| S2A | 2 SPDT | 3 ft, 18 GA Appliance Cable | |
| S2A/300 | 2 SPDT | 6 ft, 18 GA Appliance Cable | |
| S2A/500 | 2 SPDT | 10 ft, 18 GA Appliance Cable | |

| Technical Data | S1A | S2A |
|---------------------|--|----------------|
| Number of switches | 1 SPDT | 2 SPDT |
| Weight | 4.6 oz [130 g] | 6.0 oz [170 g] |
| Switching capacity | 3A (0.5A), 250 VAC | |
| Switching point | adjustable over full rotation (0° to 95°) | |
| Pre-setting | with scale possible | |
| Humidity | 5 to 95% RH non-condensing | |
| Ambient temperature | -22°F to 122°F [-30°C to +50°C] | |
| Storage temperature | -40°F to 176°F [-40°C to 80°C] | |
| Housing | NEMA 2 / IP54 | |
| Housing rating | UL94-5VA | |
| Servicing | maintenance free | |
| Agency listings | cULus acc. to UL60730-1 CE according to 73/23/EEC | |
| Quality standard | ISO 9001 | |

Wiring Diagram

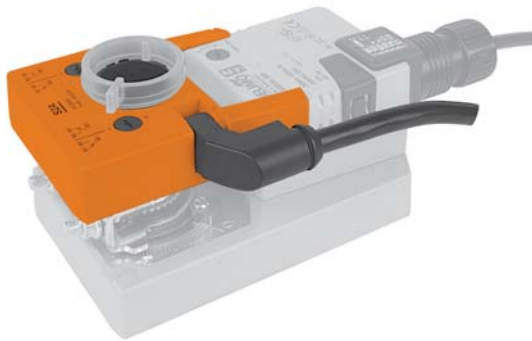


Mounting Instructions

1. Press down the manual override button and rotate the actuator fully counter clockwise.
2. Place the switch/potentiometer adaptor onto the hex shaft of the handle which is in the center of the valve/actuator coupling.
3. Slide switch onto the actuator using the actuator guiding grooves on the sides of the actuator.
4. Check for correct mating of the adaptor to the switch.
5. Adjust switch dials as necessary.

Feedback Potentiometer P...A

For the non-spring return direct-coupled actuators



Application

The P...A feedback potentiometers are used with LR and AR actuators to provide a resistive signal which varies with valve position.

The P...A units are applied with commercial proportional temperature controllers to provide feedback of the valve position, or with electric or electronic meters to provide position indication. The signal can also be used as a positioner for parallel operation of multiple actuators.

Operation

The P...A feedback potentiometers are mounted onto the direct coupled actuator. The switches are modular units that mount directly onto LR and AR type actuators and are locked into place by guiding grooves on the sides of the actuator.

A driver disk is attached to the actuator handle and offers direct transmission of the actuator position to the micro switch cams.

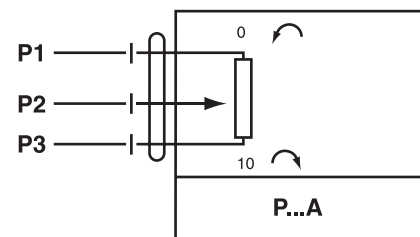
| Types | | |
|---------|------------------------|---------|
| P140A | Feedback Potentiometer | 140 Ω |
| P200A | Feedback Potentiometer | 200 Ω |
| P500A | Feedback Potentiometer | 500 Ω |
| P1000A | Feedback Potentiometer | 1000 Ω |
| P2800A | Feedback Potentiometer | 2800 Ω |
| P5000A | Feedback Potentiometer | 5000 Ω |
| P10000A | Feedback Potentiometer | 10000 Ω |

| Technical Data | P...A |
|-----------------------|--|
| Resistance values | as above |
| Output | 1 W |
| Tolerance | ± 5% |
| Linearity | ± 2% |
| Resolution | min. 1% |
| Residual resistance | max. 5% on both sides |
| Electrical connection | 3 ft, 18 GA appliance cable ½" conduit connector |
| Humidity | 5 to 95% RH non-condensing |
| Ambient temperature | -22°F to 122°F [-30°C to 50°C] |
| Storage temperature | -40°F to 176°F [-40°C to 80°C] |
| Housing | NEMA 2 / IP54 |
| Housing rating | UL94-5VA |
| Servicing | maintenance free |
| Agency listings | cULus acc. to UL60730-1 CE according to 73/23/EEC |
| Quality standard | ISO 9001 |
| Weight | 4.6 oz [130 g] |

Mounting Instructions

1. Press down the manual override button and rotate the actuator fully counter clockwise.
2. Place the switch/potentiometer adaptor onto the hex shaft of the handle which is in the center of the valve/actuator coupling.
3. Slide switch onto the actuator using the actuator guiding grooves on the sides of the actuator.
4. Check for correct mating of the adaptor to the switch.
5. Adjust switch dials as necessary.

Wiring Diagram



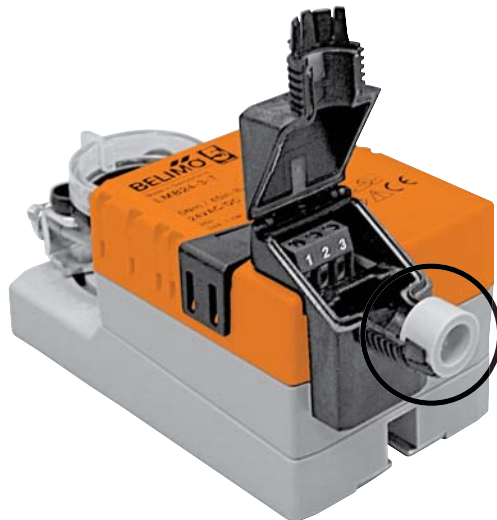
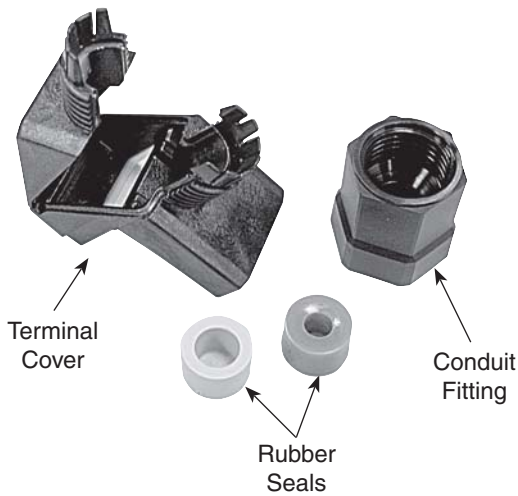
For the non-spring return direct-coupled actuators

Application

Belimo non-spring return actuators with terminal strips are can be converted from NEMA 1/IP20 to NEMA 2/IP54 using the protective terminal cover ZS-T.

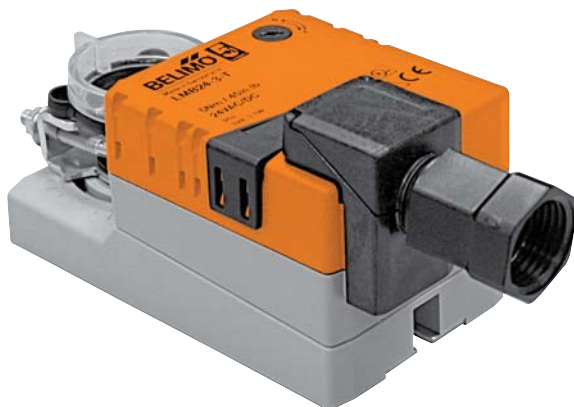
The ZS-T terminal cover accessory consists of:

- Terminal Cover
- Conduit Fitting
- Rubber Seal for Wire Diameter 4-6
- Rubber Seal for Wire Diameter 6-8



Mounting the Terminal Cover

1. Attach terminal cover to actuator, if not done already.
2. Slide the conduit fitting and correct size rubber seal onto wire.
3. Wire up actuator using the terminal strips.
4. Fit rubber seal into slot of terminal cover.



5. Shut terminal top and screw on conduit connector.

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