## Application

PR Series valve actuators are designed with an integrated linkage and visual position indicators. For outdoor applications, the installed valve must be mounted with the actuator at or above horizontal. For indoor applications the actuator can be in any location including directly under the valve.

## Operation

The PR series actuator provides $90^{\circ}$ of rotation and a visual indicator shows the position of the valve. The PR Series actuator uses a low power consumption brushless DC motor and is electronically protected against overload. A universal power supply is furnished to connect supply voltage in the range of AC 24 ... 240 V and $\mathrm{DC} 24 \ldots 125 \mathrm{~V}$. Included is a smart heater with thermostat to eliminate condensation. Two auxiliary switches are provided; one set at $10^{\circ}$ open and the other is field adjustable. Running time is field adjustable from $30 . . .120$ seconds by using the Near Field Communication (NFC) app and a smart phone.
†Use $60^{\circ} \mathrm{C} / 75^{\circ} \mathrm{C}$ copper wire size range $12 . . .28$ AWG, stranded or solid. Use flexible metal conduit. Push the listed conduit fitting device over the actuator's cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 4000 V . Type of action 1. Control pollution degree 3 .


| Technical Data |  |
| :---: | :---: |
| Power Supply | 24... 240 VAC, $-20 \% /+10 \%, 50 / 60 \mathrm{~Hz}$, <br> 24... 125 VDC, $-20 \% /+10 \%$ |
| Power consumption in operation | 20 W |
| Power consumption in rest position | 6 W |
| Transformer sizing | 20 VA @ AC/DC 24 V (class 2 power source), 23 VA @ AC/DC 120 V, 52 VA @ AC 230 V |
| Electrical Connection | Terminal blocks, (PE) Ground-Screw |
| Overload Protection | electronic thoughout 0...90 ${ }^{\circ}$ rotation |
| Input Impedance | $1000 \Omega$ |
| Angle of rotation | $90^{\circ}$ |
| Direction of motion motor | reversible with app |
| Position indication | top mounted domed indicator |
| Manual override | 7 mm hex crank, supplied |
| Running Time (Motor) | default 35 s , variable $30 . . .120 \mathrm{~s}$ |
| Ambient humidity | max. 95\% r.H., non-condensing |
| Ambient temperature | $-22 . . .122^{\circ} \mathrm{F}\left[-30 . . .50^{\circ} \mathrm{C}\right]$ |
| Storage temperature | $-40 . . .176{ }^{\circ} \mathrm{F}\left[-40 . . .80^{\circ} \mathrm{C}\right]$ |
| Degree of Protection | IP66/67, NEMA 4X, UL Enclosure Type 4X |
| Housing material | die cast aluminium polycarbonate cover |
| Agency Listing | cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU |
| Noise level, motor | $68 \mathrm{~dB}(\mathrm{~A})$ |
| Servicing | maintenance-free |
| Quality Standard | IS0 9001 |
| Weight | 13 lb [ 5.8 kg ] |
| Auxiliary switch | $2 \times$ SPDT, 3 A resistive (0.5 A inductive) @ AC 250 V , one set at $10^{\circ}$, one adjustable 0... $90^{\circ}$ |

## Wiring Diagrams

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Meets cULLs requirements without the need of an electrical ground connection.

Universal Power Supply (UP) models can be supplied with 24 VAC up to 240 VAC, or 24 VDC up to 125 VDC.


Disconnect power.


Provide overload protection and disconnect as required.
Two built-in auxiliary switches ( $2 x$ SPDT), for end position indication, interlock control, fan startup, etc.

Actuators may be controlled in parallel. Current draw and input impedance must be observed.

## WARNING! LIVE ELECTRICAL COMPONENTS!

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.


On/Off


Floating Point


Auxiliary Switches

