# For Use with AVK and EV and RV Series Actuators





| Ty  | pe | OV | er | ۷i | ev | ۷ |
|-----|----|----|----|----|----|---|
| - / |    |    |    |    |    |   |

| Туре | Stroke     |
|------|------------|
| WGVL | 2" [50 mm] |

# **Technical data**

| Functional data    | Fluid                    | chilled or hot water and steam  |
|--------------------|--------------------------|---|
|                    | Fluid Temp Range (water) | Please Refer to Manufacturer's Valve<br>Specifications                  |
|                    | Mounting Position        | 360°  |
|                    | Applicable valve size    | 26" [50150]   |
| Materials          | Hardware                 | SS and Nickel plated steel  |
|                    | Housing material         | Die cast aluminium and plastic casing                                   |
|                    | Stem                     | 316 stainless steel   |
|                    | Stem adapter             | steel   |
|                    | Frame, plate, base       | aluminum, steel (fits Warren Type 20,22,23,30, and 32) and Belimo G6/G7 |
|                    | Collar                   | steel   |
|                    | Coupling                 | GF Nylon supplied   |
| Suitable actuators | Non-Spring               | EVB(X)  |

Electrical fail-safe AVKB(X)

For close-off pressure reference Select Pro or retrofit technical documentation.

# **Product features**

Default/Configuration

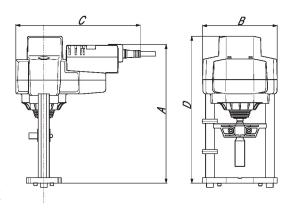
The default set up for a WGVL linkage will be factory installed along with an AVK or EV, RV series actuator. Included in the kit will be all the necessary hardware to facilitate mounting to the Warren valve.

RVB(X)

# **Dimensions**

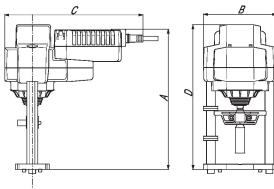
| Туре | Weight          |  |
|------|-----------------|--|
| WGVL | 5.7 lb [2.6 kg] |  |





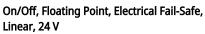
EVB, EVX, RVB, RVX





AVKB, AVKX

| A           | В          | С           | D           |
|-------------|------------|-------------|-------------|
| 10.4" [264] | 5.5" [140] | 10.3" [262] | 10.9" [276] |









| - Table 1 | . •    |         |
|-----------|--------|---------|
| IACE      | nica   | 212     |
| ICU       | IIIICa | <br>аца |

| Electrical data | Nominal voltage                    | AC 24 V   |
|-----------------|------------------------------------|---|
|                 | Nominal voltage frequency          | 50/60 Hz  |
|                 | Power consumption in operation     | 5 W   |
|                 | Power consumption in rest position | 2 W   |
|                 | Transformer sizing                 | 9.5 VA (class 2 power source)   |
|                 | Electrical Connection              | 18 GA plenum cable, 3 ft [1 m], with 1/2" conduit connector, degree of protection NEMA 2 / IP54 |
|                 | Overload Protection                | electronic throughout full stroke   |
|                 | Electrical Protection              | actuators are double insulated  |
| Functional data | Actuating force motor              | 2000 N [450 lbf]  |
|                 | Position feedback U note           | No Feedback   |
|                 | Bridging time (PF)                 | 2 s   |
|                 | Pre-charging time                  | 520 s   |
|                 | Direction of motion motor          | selectable with switch  |
|                 | Direction of motion fail-safe      | reversible with switch  |
|                 | Manual override                    | 5 mm hex crank (3/16" Allen), supplied  |
|                 | Stroke                             | 1.25" [32 mm]   |
|                 | Running Time (Motor)               | 90 s /  |
|                 | Running time motor variable        | 90 or 150 s   |
|                 | Running time fail-safe             | <35 s   |
|                 | Noise level, motor                 | 60 dB(A)  |
|                 | Noise level, fail-safe             | 60 dB(A)  |
|                 | Position indication                | Mechanically, with pointer  |
| Safety data     | Degree of protection IEC/EN        | IP54  |
|                 | Degree of protection NEMA/UL       | NEMA 2  |
|                 | Enclosure                          | UL Enclosure Type 2   |
|                 | Agency Listing                     | cULus acc. to UL60730-1A/-2-14, CAN/CSA<br>E60730-1:02, CE acc. to 2014/30/EU and<br>2014/35/EU |
|                 | Quality Standard                   | ISO 9001  |
|                 | Ambient temperature                | -22122°F [-3050°C]  |
|                 | Storage temperature                | -40176°F [-4080°C]  |
|                 | Ambient humidity                   | Max. 95% RH, non-condensing   |
|                 | Servicing                          | maintenance-free  |
| Materials       | Housing material                   | Die cast aluminium and plastic casing   |



#### **Footnotes**

† 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 800V. Type of action 1. Control pollution degree 3.

### **Electrical installation**

# X INSTALLATION NOTES

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

 $\bigwedge$  Provide overload protection and disconnect as required.

Actuators may be connected in parallel. Power consumption and input impedance must be observed.

Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 V line.

Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.

Actuators with plenum cable do not have numbers; use color codes instead.

## 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.

# Wiring diagrams

On/Off

