

Modulating, Non-Spring Return, 24 V, for DC 2...10 V or 4...20 mA







| Technical data  |                                    |  |
|-----------------|------------------------------------|--|
| Electrical data | Nominal voltage                    | AC/DC 24 V   |
|                 | Nominal voltage frequency          | 50/60 Hz   |
|                 | Power consumption in operation     | 2.5 W  |
|                 | Power consumption in rest position | 0.4 W  |
|                 | Transformer sizing                 | 5 VA (class 2 power source)  |
|                 | Electrical Connection              | Terminal blocks  |
|                 | Overload Protection                | electronic thoughout 090° rotation   |
| Functional data | Operating range Y                  | 210 V  |
|                 | Operating range Y note             | 420 mA w/ ZG-R01 (500 $\Omega$ , 1/4 W resistor)   |
|                 | Input Impedance                    | 100 k $\Omega$ for 210 V (0.1 mA), 500 $\Omega$ for 420 mA   |
|                 | Position feedback U                | 210 V  |
|                 | Position feedback U note           | Max. 1 mA  |
|                 | Direction of motion motor          | selectable with switch 0/1   |
|                 | Manual override                    | external push button   |
|                 | Angle of rotation                  | 90°  |
|                 | Angle of rotation note             | adjustable with mechanical stop  |
|                 | Running Time (Motor)               | 90 s / 90°   |
|                 | Running time motor variable        | 90 or 150 s  |
|                 | Noise level, motor                 | 45 dB(A)   |
|                 | Position indication                | Mechanically, pluggable  |
| Safety data     | Degree of protection IEC/EN        | IP54   |
|                 | Degree of protection NEMA/UL       | NEMA 1   |
|                 | Enclosure                          | UL Enclosure Type 1  |
|                 | Agency Listing                     | cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU Listed to UL 2043 - suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC |
|                 | 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   |
|                 |                                    |  |

**Footnotes** †Rated Impulse Voltage 800V, Type of Action 1, Control Pollution Degree 2.

Materials

Housing material

Galvanized steel and plastic housing



#### **Accessories**

| Electrical accessories | Description   | Туре     |
|------------------------|---|----------|
|                        | Battery backup system, for non-spring return models | NSV24 US |
|                        | Battery, 12 V, 1.2 Ah (two required)                | NSV-BAT  |

# **Electrical installation**

## **INSTALLATION NOTES**

Provide overload protection and disconnect as required.

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

Actuators may also be powered by DC 24 V.

6 Only connect common to negative (-) leg of control circuits.

 $\Lambda$  A 500  $\Omega$  resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.

Actuators are provided with a numbered screw terminal strip instead of a cable.

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

## 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

