


5-year warranty
C


Technical data

| Electrical data | Nominal voltage | AC/DC 24 V |
| :---: | :---: | :---: |
|  | Nominal voltage frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Power consumption in operation | 3.5 W |
|  | Power consumption in rest position | 1.3 W |
|  | Transformer sizing | 6 VA (class 2 power source) |
|  | Electrical Connection | 18 GA plenum cable with $1 / 2^{\text {" conduit }}$ connector, degree of protection NEMA 2 / IP54, $3 \mathrm{ft}[1 \mathrm{~m}] 10 \mathrm{ft}$ [ 3 m ] and 16 ft [ 5 m ] |
|  | Overload Protection | electronic thoughout $0 . . .90^{\circ}$ rotation |
| Functional data | Operating range $Y$ | 0... $135 \Omega$ |
|  | Operating range Y note | Honeywell Electronic Series 90, input 0... $135 \Omega$ |
|  | Input Impedance | $100 \mathrm{k} \Omega$ |
|  | Position feedback U | 2... 10 V |
|  | Position feedback U note | Max. 0.5 mA |
|  | Position feedback U variable | VDC variable |
|  | Direction of motion motor | selectable with switch 0/1 |
|  | Manual override | external push button |
|  | Angle of rotation | $90^{\circ}$ |
|  | Angle of rotation note | adjustable with mechanical stop |
|  | Running Time (Motor) | $150 \mathrm{~s} / 90^{\circ}$ |
|  | Running time motor variable | 90... 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 2 |
|  | Enclosure | UL Enclosure Type 2 |
|  | Agency Listing | cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU; Listed to UL 2043 - suitable for use in air plenums per Section 300.22(c) of the NEC and Section 602.2 of the IMC |
|  | Quality Standard | ISO 9001 |
|  | Ambient temperature | $\left.-22 . . .122^{\circ} \mathrm{F}-30 . . .50^{\circ} \mathrm{C}\right]$ |
|  | Storage temperature | $-40 . . .176^{\circ} \mathrm{F}\left[-40 . . .80^{\circ} \mathrm{C}\right]$ |
|  | Ambient humidity | Max. 95\% RH, non-condensing |
|  | Servicing | maintenance-free |
| Materials | Housing material | Galvanized steel and plastic housing |

Footnotes $\dagger$ Rated Impulse Voltage 800 V , Type action 1, Control Pollution Degree 3.

| Gateways | Description | Type |
| :--- | :--- | :--- |
|  | Gateway MP to BACnet MS/TP <br> Gateway MP to Modbus RTU <br> Gateway MP to LonWorks | UK24BAC |
| Electrical accessories | Description | UK24MOD |
| Battery backup system, for non-spring return models <br> Battery, 12 V, 1.2 Ah (two required) <br> Service Tool, with ZIP-USB function, for programmable and <br> communicative Belimo actuators, VAV controller and HVAC performance <br> devices | Type |  |

## Electrical installation

## Installation notes

$\uparrow$ Provide overload protection and disconnect as required.
3. Actuators may also be powered by DC 24 V .
18. Actuators with plenum cable do not have numbers; use color codes instead.
22. Actuators and controller must have separate transformers.
23. Consult controller instruction data for more detailed information.

Resistor value depends on the type of controller and the number of actuators. No resistor is used for one actuator. Honeywell® resistor kits may also be used.
To reverse control rotation, use the reversing switch.
Actuators may be controlled in parallel. Current draw and input impedance must be observed.
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



Series 90 low limit control - 280 W


Low Limit Control



Multiple Actuators with Minimum Position Potentiometer


Multiple Actuators


Multiple Actuators Used with W973, W7100 and T775


