VAV-Universal, ready-to-connect rotary actuator for VAV and CAV units in technical building installations

- Air damper size up to approx. $2 \mathrm{~m}^{2}$
- Torque motor 70 in-lb [8 Nm]
- Nominal voltage AC/DC 24 V
- Control Communicative PP
- Running Time (Motor) 4 s


Technical data

| Electrical data | Nominal voltage | AC/DC 24 V |
| :---: | :---: | :---: |
|  | Nominal voltage frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Nominal voltage range | AC 19.2...28.8 V / DC 21.6...28.8 V |
|  | Power consumption in operation | 13 W |
|  | Power consumption in rest position | 2 W |
|  | Transformer sizing | 23 VA |
|  | Transformer sizing note | Imax 20 A @ 5 ms |
|  | Connection supply / control | cable [ 0.5 m ] with VST connector |
|  | Parallel operation | No |
| Functional data | Torque motor | $70 \mathrm{in}-\mathrm{lb}$ [8 Nm] |
|  | Direction of motion variable | At VRU-..-BAC with Belimo Assistant App |
|  | Manual override | with push-button, can be locked |
|  | Angle of rotation | Max. $95^{\circ}$ |
|  | Angle of rotation note | can be limited on both sides with adjustable mechanical end stops |
|  | Running Time (Motor) | $4 \mathrm{~s} / 90^{\circ}$ |
|  | Adaptation Setting Range Variable | Triggering at VRU-..-BAC, by pressing the Adaptation button or with Belimo Assistant App |
|  | Noise level, motor | 56 dB (A) |
|  | Mechanical interface | Universal shaft clamp 8... 26.7 mm |
|  | Position indication | Mechanically, pluggable |
| Safety data | Protection class IEC/EN | III, Safety Extra-Low Voltage (SELV) |
|  | Degree of protection IEC/EN | IP54 |
|  | EMC | CE according to 2014/30/EU |
|  | Certification IEC/EN | IEC/EN 60730-1 and IEC/EN 60730-2-14 |
|  | Mode of operation | Type 1 |
|  | Rated impulse voltage supply / control | 0.8 kV |
|  | Pollution degree | 3 |
|  | Ambient temperature | $-22 . . .104^{\circ} \mathrm{F}\left[-30 . . .40^{\circ} \mathrm{C}\right]$ |
|  | Ambient temperature note | Caution: $+40 . . .+50^{\circ} \mathrm{C}$ utilisation possible only under certain restrictions. Please contact your supplier. |
|  | Storage temperature | $-40 . . .176^{\circ} \mathrm{F}\left[-40 . . .80^{\circ} \mathrm{C}\right]$ |
|  | Ambient humidity | Max. 95\% RH, non-condensing |
|  | Servicing | maintenance-free |
| Weight | Weight | 0.90 kg |

## Safety notes



- The device must not be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or aggressive gases interfere directly with the actuator and that is ensured that the ambient conditions remain at any time within the thresholds according to the data sheet.
- Only authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- Cables must not be removed from the device.
- Self adaptation is necessary when the system is commissioned and after each adjustment of the angle of rotation (press the adaptation push-button once).
- To calculate the torque required, the specifications supplied by the damper manufacturers concerning the cross-section, the design, the installation situation and the ventilation conditions must be observed.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.


## Product features

Adjustable angle of rotation Adjustable angle of rotation with mechanical end stops.

## Accessories

| Electrical accessories | Description | Type |
| :--- | :--- | :--- |
|  | VAV-Universal - Volumetric flow / branch pressure controller | VRU-D3-BAC |
|  | VAV-Universal - Volumetric flow / branch pressure controller | VRU-M1-BAC |
|  | VAV-Universal - room pressure controller | VRU-M1R-BAC |

## Electrical installation



Plug-in connection with pre-
assembled cable-plug unit

## Installation situation Remove actuator cable:

The connecting cable of the VST damper actuator can be removed from the VRU controller using a screwdriver (size 0...3) as shown in the illustration.


## Dimensions



