

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

- Air damper size up to approx. 4 m<sup>2</sup>
- Torque motor 180 in-lb [20 Nm]
- Nominal voltage AC/DC 24 V
- Control Communicative PP


**Technical data**

<b>Electrical data</b>	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	8.5 W
	Power consumption in rest position	3.5 W
	Transformer sizing	11 VA
	Connection supply / control	cable [0.5 m] with VST connector
	Parallel operation	No
<b>Functional data</b>	Torque motor	180 in-lb [20 Nm]
	Torque Fail-Safe	20 Nm
	Direction of motion variable	At VRU-...BAC with Belimo Assistant App
	Manual override	by means of hand crank and locking switch
	Angle of rotation	Max. 95°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	120 s / 90°
	Running time fail-safe	<20 s @ -4...122°F [-20...50°C], <60 s @ -22°F [-30°C]
	Adaptation Setting Range Variable	Triggering at VRU-...BAC, by pressing the Adaptation button or with Belimo Assistant App
	Noise level, motor	40 dB(A)
	Mechanical interface	Universal shaft clamp 10...25.4 mm
	Position indication	Mechanical
	Service life	Min. 60'000 fail-safe positions
<b>Safety data</b>	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.AA
	Rated impulse voltage supply / control	0.8 kV
	Pollution degree	3
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Ambient humidity	Max. 95% RH, non-condensing
Servicing	maintenance-free	
<b>Weight</b>	Weight	2.2 kg

Safety notes



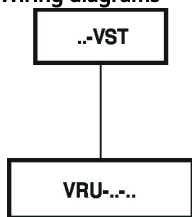
- The device must not be used outside the specified field of application, especially not in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or aggressive gases interfere directly with the actuator and that is 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.

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

Wiring diagrams

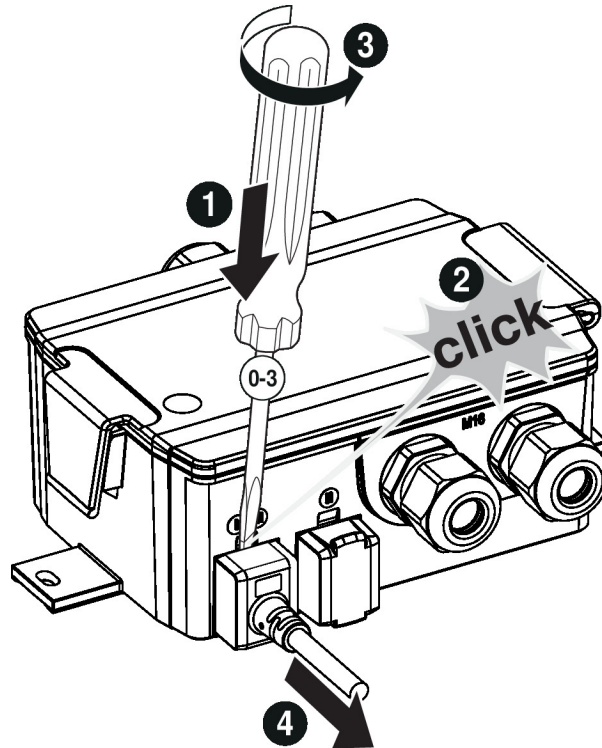


Plug-in connection with pre-assembled cable-plug unit

Installation notes

**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

Stem length

	Min. 85
--	---------

Clamping range

	10...22	10	14...25.4
	19...25.4	12...18	

