

MZ3-FS-V01 3-Level Switch

Function

- Electronic 3-level switch with touch panel
- Manual operation with up to 3 Levels: MIN, MID, MAX
- Automatic reset of the level MAX to specified level (per default no reset)
- One 0...10 VDC output to output defined voltage levels
- Password protected settings
- Copy of settings with accessory (AEC-PM2)
- Design fits to the Feller SNAPFIX® program with the design lines EDIZIOdue® and EDIZIO.liv®.
(Note: SNAPFIX® mounting plate and EDIZIO design frames are not included and must be ordered separately)



Applications

Comfort ventilation, for example for very well insulated living rooms which must be ventilated according to regulations or for controlling dampers, valve drives, blinds or windows, etc.

General description

The MZ3-FS-V01 is a microprocessor-controlled precision level switch with touch panel. Through parameters the level switch may be configured. Settings such as switching levels for each step may be adjusted. The level switch is configuration with a programming device called OPA-S. Configuration can as well be updated using a remote memory device called AEC-PM2.

Safety



DANGER! Safety note

This device is intended to be used as 3-level switch. Where a device failure endangers human life and/or property, it is the responsibility of the client to add additional safety devices to prevent or detect a system failure caused by such a device failure.

The device contains electronic components and must not be disposed of with household waste.

Types and ordering

Product name	Product No.	Description	Features
MZ3-FS-V01-B3-T3	40-100303	- Blue LED - White background - Lettering: MIN, MID, MAX	Compact positioner/controller with one 0-10 VDC output. Operation as 3-level switch with touch panel.

Note: Mounting plate and frame are not included. See below for options.

Accessories

AMM-DS-W	40-510104	Feller EDIZIOdue® frame white	Includes SNAPFIX® mounting plate
AMM-LS-W	40-510105	Feller EDIZIO.liv® frame white	Includes SNAPFIX® mounting plate
OPA-S	40-500006	Programming and display device	LCD display for surface mounting or handheld operation.
AEC-PM2	40-500130	Memory-Device. Used for copying settings	Stores settings of MZ3

Interface to the ventilation system

The 3-level switch works with all systems that are designed for a 0...10 VDC or 2...10 VDC input signal.

Technical Data

Power supply	Operating voltage	24 V AC/DC $\pm$ 10%, 50/60 Hz, Class 2 48 VA max.
	Power consumption	Max. 1 VA
	Electrical connection	Terminal connectors, wire 0,34-2,5 mm ² (AWG 22...13)
Signal output	Analog output Output signal Maximum load	DC 0...10 V 2 mA or 5 k Ω
Environment	Operation Climatic conditions Temperature Humidity	To IEC 721-3-3 class 3K5 0...50 °C (32...122 °F) < 95% RH non-condensing
	Transport & storage Climatic conditions Temperature Humidity Mechanical conditions	To IEC 721-3-2 and IEC 721-3-1 class 3K3 and class 1K3 -25...70 °C (-13...158 °F) < 95% RH non-condensing class 2MT2
Standards	Degree of protection	Wall mounted: IP40 acc. EN 60529 Not installed: IP00 acc. EN 60529
	Safety class	III (IEC 60536)
General	Housing material:	Flame retardant PC+ABS plastic (UL94 class V-0)
	Dimensions (H x W x D) including packaging	60 x 60 x 40 mm (2.4" x 2.4" x 1.6")
	Weight (incl. packaging)	90 g (3.2 oz)

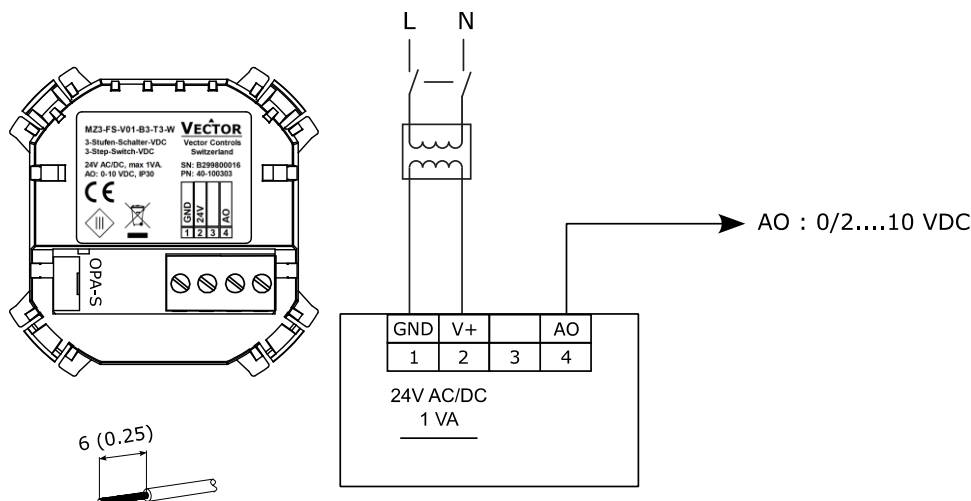
Product testing and certification



Declaration of
Conformity

Information on the conformity of our products can be found on our website
www.vectorcontrols.com on the corresponding product page under "Downloads".

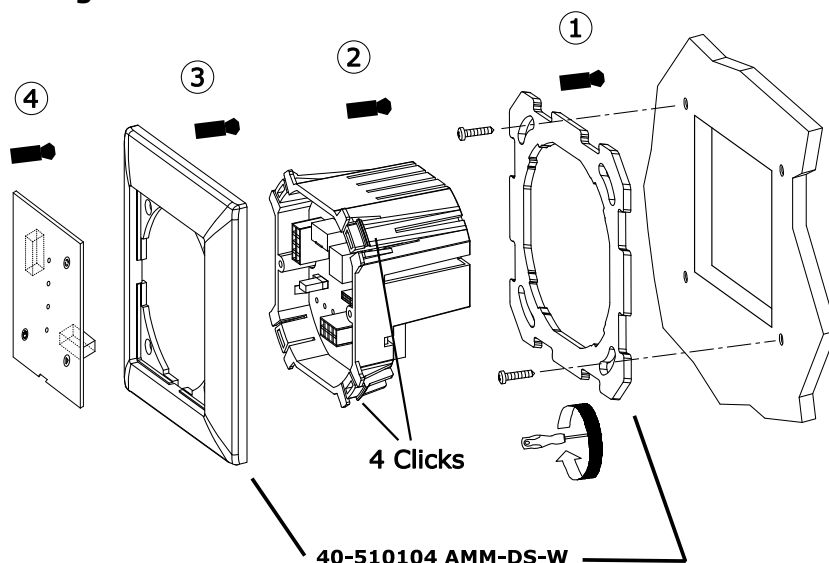
Connection diagram



Description:

- | | | |
|--------------|----------------------------|---|
| 1 GND | Power supply: | 0 V, -24 VDC, internally connected to signal common |
| 2 V+ | Power supply: | 24 VAC, +24 VDC |
| 3 | Not used, do not connect | |
| 4 AO | Analog output ventilation: | 0/2...10 VDC |

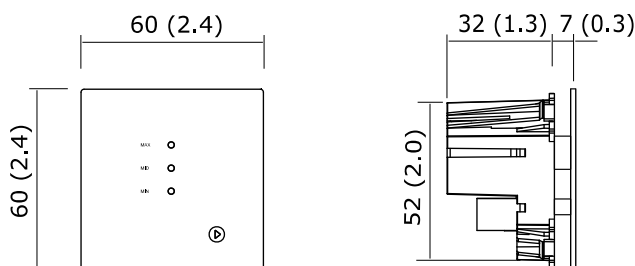
Mounting instruction



For more information on mounting, refer to MZ3-FS-V01 Installation Manual No. 70-001096 (www.vectorcontrols.com).

Dimensions mm (in)

The MZ3-FS fits to a Feller SNAPFIX® mounting plate with a EDIZIOdue® or EDIZIO.liv® design frame at can be incorporated into a commercially available flush box. The mounting plate and frame must be ordered separately.



Display and Operation

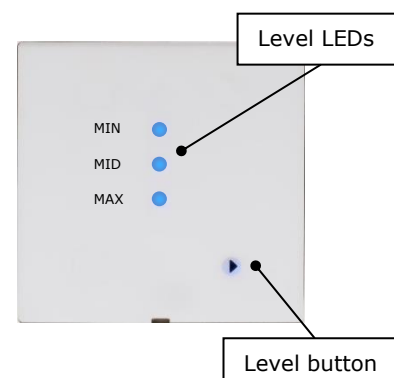
Manual operation

The following operation modes will be activated through repeated pressing of the level button:

- Level 0 = MIN = Minimum
- Level 1 = MID = Medium
- Level 2 = MAX = Maximum

The active level is activated after 3 seconds. This prevents unnecessary switching when setting the device. The level-indication and buttons light up in blue.

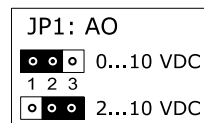
The device is equipped with proximity detection. When approaching a distance of approx. 10 cm, the luminosity of the LED increases. After 30 seconds without interaction, the LEDs dim down again and thus save energy.



Configuration

Configuration of the output signal and jumper

- If JP1 is in position 1-2, the output signal is 0...10 VDC
- If JP1 is in position 2-3, the output signal is 2...10 VDC



Output configuration (AO)

Parameter	Description	Range	Default
OP00	Output level 0 (MIN): 0...100 % = 0...10.0 VDC	0...100%	0% = 0 V (JP1 = 1-2) 2 V (JP1 = 2-3)
OP01	Output level 1 (MID): 0...100 % = 0...10.0 VDC Note: setting a level to 0 disables it	0...100%	50% = 5 V (JP1 = 1-2) 6 V (JP1 = 2-3)
OP02	Output level 2 (MAX): 0...100 % = 0...10.0 VDC Note: setting a level to 0 disables it	0...100%	100% = 10 V (JP1 = 1-2) 10 V (JP1 = 2-3)
OP03	Automatic reset time of the lowest level to the level defined in OP05. The reset is deactivated with setting = 0	0...255 min	0 min (deactivated)
OP04	Automatic reset time of the highest level to the level defined in OP05. The reset is deactivated with setting = 0	0...255 min	0 min (deactivated)
OP05	Level after automatic reset. This level will be activated once the reset time defined in OP04 has expired.	0...2	1
OP06	- 0: Parameter copy successful; No action - 1: Start parameter copy to AEC-PM2 - 7: Copy fail (no AEC-PM2 or communication error)	0...1 7: display only	0

Setting the parameters

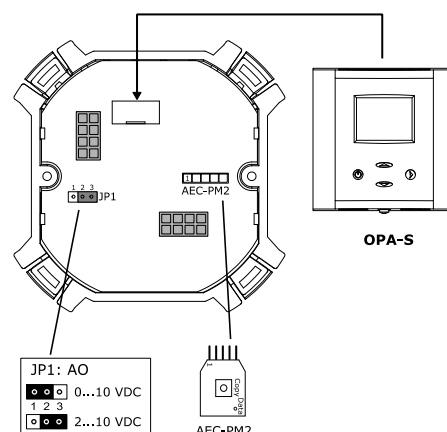
The MZ3-FS-V01 is designed to work for most comfort ventilation applications. It is however possible to fine tune it to fit perfect into the application at hand. The parameters can be changed during operation through an operation unit called OPA-S. The operating unit OPA-S must be connected for the adjustment of the parameters with the MZ3-FS-V01 at the connector under the front panel or on the back of the MZ3.

Carefully lift the front panel of the MZ3-FS-V01 and pull it away to the front. Plug the connecting cable of the OPA-S operating unit into the rear part of the MZ3-FS-V01.



Important

The MZ3 does not accept the new settings until the OPA-S parameter menu is exited. The connection must not be disconnected earlier than five seconds after the last keystroke!



Copy parameters

It is now possible to copy settings to an accessory (AEC-PM2) and to copy them back to other MZ3. For this, remove the front panel of the MZ3, insert AEC-PM2 in the designated plug.

Copy parameters from MZ3 to AEC-PM2

Connect OPA-S and copy parameters from MZ3 to AEC-PM2 by setting OP06 to 1. The "Data" LED of the AEC-PM2 lights up for 5 seconds after successful parameter copying and OP06 is set to 0. If parameter copying has failed, the LED flashes for 5 seconds and OP06 is set to 7.

Copy parameters from AEC-PM2 to MZ3

Copy the parameters from AEC-PM2 to MZ3 simply by pressing the "Copy" button on the AEC-PM2. The "Data" LED on the AEC-PM2 will light for 5 seconds after the parameters have been successfully copied. If the parameter copy failed, the LED will blink for 5 seconds.

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