FANinBOX 110V 1CH

3-speed ceiling fan controler @110VAC

ZCLFB110C1

TECHNICAL DOCUMENTATION

FEATURES

- External 110V 50/60Hz power supply.
- Up to 3 speeds control for ceiling fans.
- Manual control through push button and LED indicator.
- 10 Logic functions.
- Total data saving on KNX bus failure.
- Integrated KNX BCU.
- Dimensions 67 x 90 x 35mm (2 DIN units).
- DIN rail mounting (EN 50022), through pressure.
- Conformity with the CE directives (CE-mark on the right side).

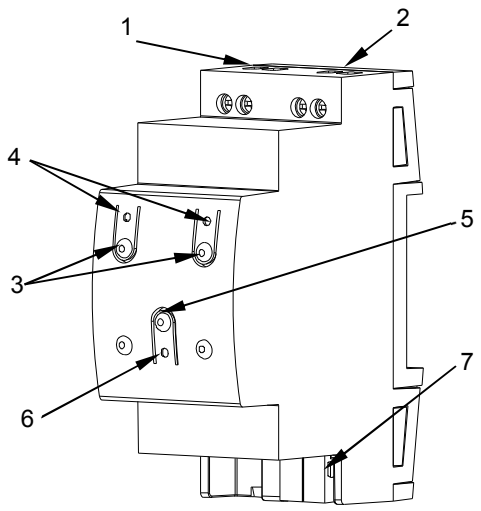


Figure 1: FANinBOX 110V 1CH

1. Power supply input	2. Fan output	3. Speed control buttons	4. Speed indicator LEDs
5. Programming/Test button	6. Programming/Test LED	7. KNX Connector	

Programming/test button: short press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters the safe mode. If this button is held for more than 3 seconds, the device enters the test mode.

Programming/Test LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. The manual mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it starts a blue blinking sequence.

GENERAL SPECIFICATIONS

CONCEPT			DESCRIPTION	
Type of device			Electric operation control device	
KNX supply	Voltage (typical)		29VDC SELV	
	Voltage range		21..31VDC	
	Maximum consumption	Voltage	mA	mW
		29VDC (typical)	3.9	113.1
		24VDC[1]	10	240
	Connection type		Typical TP1 bus connector for 0.80mm Ø rigid cable	
External power supply			110VAC 50/60Hz	
Operation temperature			0°C .. +55°C	
Storage temperature			-20°C .. +55°C	
Operation humidity			5 .. 95% (No condens.)	
Storage humidity			5 .. 95% (No condens.)	
Complementary characteristics			Class B	
Protection class			II	
Operation type			Continuous operation	
Device action type			Type 1	
Electrical stress period			Long	
Degree of protection			IP20, clean environment	
Installation			Independent device to be mounted inside electrical panels with DIN rail (EN 50022)	
Minimum clearances			Not required	
Response on KNX bus failure			Data saving according to parameterization	
Response on KNX bus restart			Data recovery according to parameterization	
Operation indicator			The programming LED indicates programming mode (red) and test mode (green). The output LEDs indicate its status (fixed = full speed; fast/slow flashing = high/slow speed; off = stoped)	
Weight			109g	
PCB CTI index			175V	
Housing material			PC FR V0 halogen free	

[1] Maximum consumption in the worst case scenario (KNX Fan-In model)

OUTPUTS SPECIFICATIONS AND CONNECTIONS		
CONCEPT		**DESCRIPTION**
Number of outputs		1
Output type		Relays based control device
Maximum recommended load per output		100W
Minimum load per output		30W
Short-circuit protection		NO
Overload protection		NO
Connection method		Screw terminal block
Cable cross-section		0.5-2,5mm² (IEC) / 26-12AWG (UL)
Outputs per common		1
Maximum response time		15ms
Lifetime (cycles)	Mechanical (min.)	1 000 000 (@ 180cpm)
	Electrical (min.)	50 000 (@20cpm, max. current and resistive load)

EXTERNAL POWER SUPPLY SPECIFICATIONS AND CONNECTIONS	
CONCEPT	**DESCRIPTION**
Voltage	110VAC
Connection method	Screw terminal block
Cable cross-section	0.5-2,5mm² (IEC) / 26-12AWG (UL)

WIRING DIAGRAMS

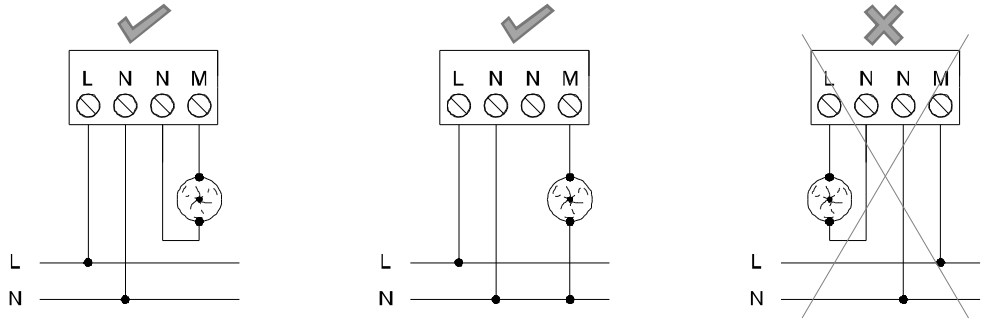
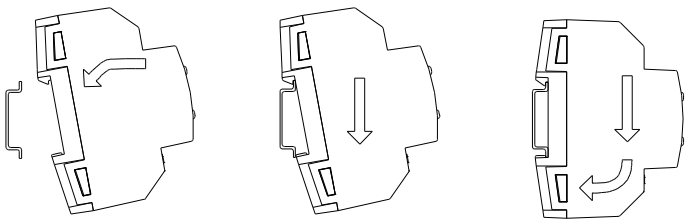


Figure 2: Wiring diagram of a fan

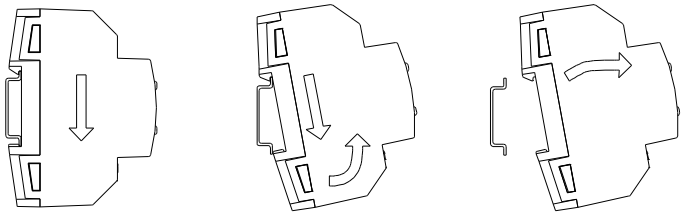
⚠ In order to ensure the expected status of the relays, please check that the device is connected to the KNX bus before energizing the power circuit.

⚠ **Use for ceiling fans. Do not use other load to avoid damages**.

Attaching FANinBOX 110V 1CH to DIN rail:



Removing FANinBOX 110V 1CH from DIN rail:



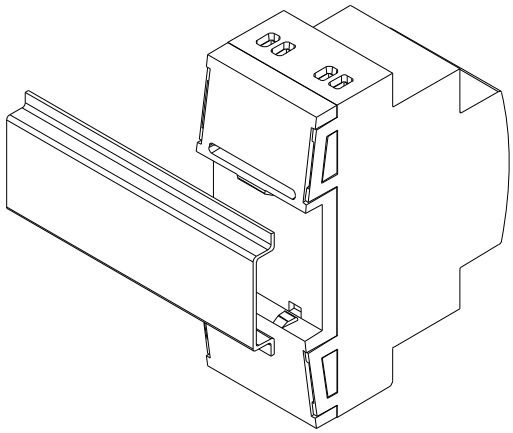


Figure 3: Mounting FANinBOX 110V 1CH on DIN rail

SAFETY INSTRUCTIONS

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- The facility must be equipped with a device that ensures the omnipolar sectioning. Installation of a 10A mini-circuit-breaker is recommended. To prevent accidents, it must remain open in case of manipulation of the device.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- Keep the device away from water and do not cover it with clothes, paper or any other material while in use.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at http://zennio.com/weee-regulation.