K·BUS®

Technical Sheet
For EIB/KNX Fan Coil Actuator with 0-10V

AFVFT-07/10.1

CE KNX

The worldwide STANDARD for home and building control

CHARACTERISTICS

The fan speed control
●Up to three level fan speed can be controlled and status response.
●Auto. Operation and limitation function
●Forced operation
●Behaviour operation for bus failure and bus recovery
HVAC control
●The 2-pipe system or 4-pipe system can be controlled by 2 state-ON/OFF valve or Continuous PWM valve
●Local or bus to control valve,also response the valve position status
●HVAC mode can be set to standby mode, comfort mode, night mode and protect mode when the valve is controlled via local, and HAVC mode status response
●Local temperature measure via input external PT1000 sensor
●Scene function
Interface output
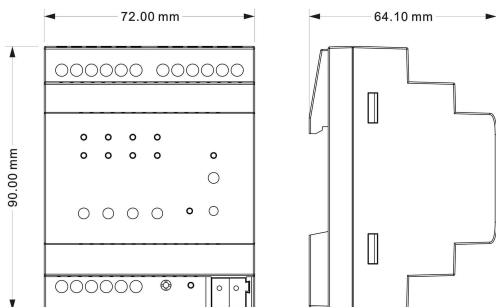●The relays can be used as switch output when it is not used to control the fan speed or valve.
●Switch output of special functions: time,logic,scene,force,operation hours counter
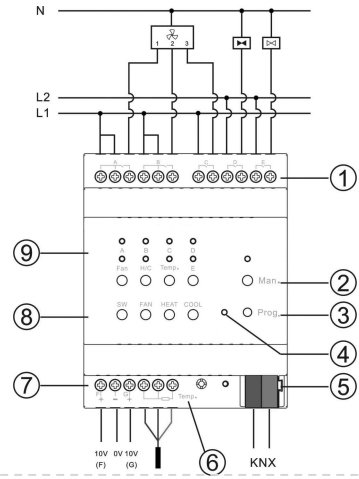●2 channels of 0-10V output can be used for fan or valve control

Illustrate

① 5 fold relay outputs: via the parameters can be set as fan speeds(A/B/C), valves (D for Heating,E for Cooling)or general switch outputs
② Man./Auto. operation switch button: switch to Man. operation via long press 1s, and the LED is on in the front of button
③ Programming button
④ Programming LED: Red LED for assigning the physical address,Green LED for displaying application layer running normally
⑤ EIB/KNX bus connection terminal
⑥ three-wires PT1000 temperature sensor
⑦ 0-10V outputs: via the parameters can be set as the fan or valve outputs
⑧ Operate buttons. From left to right: Switch control, Fan speed, Heating, Cooling.
⑨ LED display: A,B,C,D,E display switch output status;
Fan red -- the fan speed 1, Fan green --the fan speed 2, Fan blue-- the fan speed 3;
H/C red -- heating, H/C blue -- cooling;
Temp.   On -- local temperature error

PARAMETERS

Power supply	Bus voltage	21-30DC, Via EIB
	Bus current	<15mA
	Bus consumption	<360mW
Relay outputs	Rated voltage	250V AC
	Rated current	10A/105μF
0-10V outputs	output voltage	0-10V DC, with isolation
	Load current	Up to1.5mA
1 fold input	Connect a three-wires PT1000 temperature sensor	
	Measuring temperature range － 45°C ... + 80°C	
	Cable length 2M	
Temperature	Operation	－ 5 °C ... + 45 °C
	Storage	–25 °C ... + 55 °C
	Transport	－ 25 °C ... + 70 °C
Installation	on 35 mm mounting rail, and in clean, dry indoor	

INSTALLATION FIGURE

In order to install to the distribution box easily, the Fan Coil Actuator with 0-10V is designed to be modular device which can be installed on a 35 mm mounting rail, The devices adopt screw terminal to achieve electrical connection. The connection to the EIB/KNX bus is established via a bus connecting terminal. Must ensure that the device operation, testing, detecting, maintenance correctly.

When install, The temperature can be collected from three-wires PT1000 temperature sensor by Extend the line to the place where in needed or via KNX temperature sensor.

In PC need to ETS4 or ETS5 software, such the parameters configuration can be operated in PC.

DIMENSIONS

Model	Dimension	Weight
AFVFT-07/10.1	72 x 90 x 64.1 mm (L×W×D)	0.3kg

IMPORTANT INFORMATION

Installation and commissioning of the device may only be carried out by trained electricians. The relevant standards, directives, regulations and instructions must be observed when planning and implementing the electrical installation.

●Protect the device against moisture, dirt and damage during transport, storage and operation!

●Do not operate the device outside the specified technical data (e.g. temperature range)!

●The device may only be operated in closed enclosures (e.g. distribution boards).

Should the device become soiled, it may be cleaned with a dry cloth. If this does not suffice, a cloth lightly moistened with soap solution may be used. On no account should caustic agents or solvents be used.

K-BUS®

KNX / EIB 0-10V 风机盘管执行器技术规格书

适用型号：

AFVFT-07/10.1

国际标准的家庭和楼宇控制系统

CE KNX

接线图

产品功能

风速控制：
- 支持多达三档的风速控制及状态反馈
- 自动、限制功能
- 强制功能
- 总线上电或掉电行为操作控制

HVAC 控制
- 支持两管/四管控制的普通开/关阀控制和 PWM 连续阀控制
- 支持本地/总线控制阀门；阀门开关状态反馈
- 本地控制支持待机、舒适、夜晚和保护模式的操作模式及状态反馈
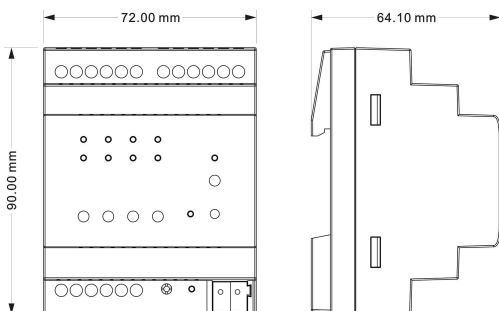- 具有温度采集功能，输入外接 PT1000 传感器可对本地实际温度进行采集
- 场景功能

负载接口功能
- 当继电器输出未用于控制风速、阀门时，可作为普通的开关输出
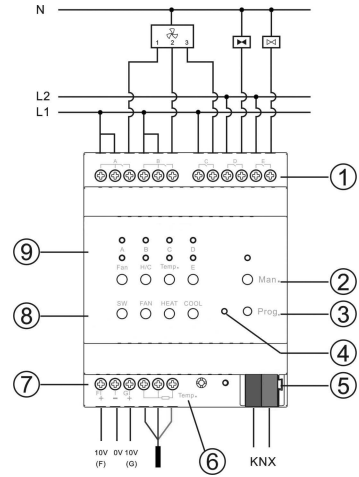- 开关输出的附加功能：楼梯灯、闪烁、延时、逻辑、场景、强制操作和时间计数
- 2 回路 0-10V 输出，可用于风机或盘管输出控制

说明

① 5 路继电器输出，根据参数设置可作为风速(A/B/C)、阀门(D 为加热阀，E 为制冷阀)或普通开关输出

② 手动/自动控制切换按键，长按 1s 切换到手动时，上边的指示灯亮

③ 编程按键，分配物理地址

④ 编程指示灯，红灯指示编程物理地址，绿灯闪指示设备应用层运行正常

⑤ EIB/KNX 总线连接端子

⑥ 三线 PT1000 温度传感器，用于检测本地环境温度

⑦ 两路 0-10V 输出，根据参数设置可作为风速、阀门输出

⑧ 操作按键组，从左往右为：开关输出控制，风速控制，加热和制冷开关

⑨ 输出指示灯，A，B，C，D，E 分别指示 5 路开关输出状态；
Fan 风速指示灯，红色--风速 1，绿色--风速 2，蓝色--风速 3；
H/C 加热/制冷指示灯，红色--加热功能，蓝色--制冷功能；
Temp.温度错误指示灯，本地温度采集出错，指示灯亮

技术参数

电　源	总线电压	21-30V DC 通过 EIB 总线获得
	总线电流	<15mA
	总线功耗	<360mW
5 路继电器	额定电压	250V AC
	额定电流	10A/105μF
2 路 0-10V	输出电压	0-10V DC，带隔离
	带载能力	最大 1.5mA
1 路温度检测	三线制 PT1000 温度传感器	
	测量温度范围	–45°C ... + 80°C
	拉线长度	2M
温度范围	运行	− 5 °C ... + 45 °C
	存储	–25 °C ... + 55 °C
	运输	− 25 °C ... + 70 °C
安装方式	35mm 丁导轨安装，适合安装在清洁、干燥的室内	

安装说明

为了方便安装到配电箱中，把风机盘管控制器设计成模块化安装设备，能安装在 35 毫米丁导轨上。设备采用螺丝接线柱实现电气连接，总线连接直接通过 EIB 接线端子连接。安装时必须确保设备操作、测试、检测、维护、维修正确无误。

安装时，可根据需要把三线 PT1000 温度传感器外延至需要采集温度的地方，进行采集温度；也可以通过 KNX 温度传感器设备对温度进行采集。

PC 上需安装 ETS4 或 ETS5 软件，这样才能设置修改数据库参数。

尺寸规格

型号	尺寸	重量
AFVFT-07/10.1	72 x 90 x 64.1 mm (L×W×D)	0.3kg

重要提示

安装和调试设备只能由合格的熟练电工来操作。在计划与实施电气安装的过程中相关的标准、指令、规则和指示都要严格执行。

- 需要避免器件在运输、储存、使用的过程中受潮、脏污以及受损。
- 不要使器件运行在指定的技术指标之外（例如温度范围）。
- 器件只可以运行在封闭的环境中（例如配电箱）。

当设备脏污时，只可以使用干燥的布来清洁。如果这样不足以清洁干净,可以使用湿布蘸少许肥皂溶液轻轻擦拭。绝不能使用碱剂或者腐蚀性溶剂。