

Product data sheet

Multi station universal



Reference number

2590 M1SR

KNX multi station universal

rail mounting device, 8 rail units

Intended use

- Switching of electrical fan coil units and other electrical loads for AC 110 / 230 V
- Switching and dimming of lighting
- Switching of electrically driven blinds, shutters and awnings
- Switching of electrothermal valve drives
- Room thermostat for controlling the temperature
- Analogue output signals for controlling devices with a 0-10 V interface used in heating, ventilation and air conditioning technology
- Inputs for polling conventional, floating contacts, and transmitting telegrams to the KNX bus
- Signal evaluation of motion detector mini basic (ref.-no.: BM 360 MB WW), condensation (ref.-no.: BTS 01) and leakage sensors (ref.-no.: LES 01)
- Temperature detection via NTC temperature sensor (ref.-no.: FF NTC)
- Outputs for controlling LEDs
- Operation in KNX system
- Mounting on DIN rail according to EN 60715 in distribution box

Product characteristics

- Outputs can be operated manually
- Feedback in manual operation and in bus operation
- Scene function
- Disabling of individual outputs manually or via bus
- Operating hours counter, except blind function
- Switch-off of unnecessary outputs
- Logic functions
- KNX Data Secure compatible with ETS 5.7.7 or ETS 6.3.0 or higher
- Can be updated with the ETS Service App

Fan coil function

- Connection of up to two fan coils with fan levels or permanently controlled fans
- Operating modes for heating, cooling or combined heating/cooling operations
- 2-pipe or 4-pipe operation
- Individual or hierarchical switching of the fan levels or permanent control of the fan

Switching function

- Operation as 1-way NO or 1-way NC contacts
- Logic operation and forced guidance
- Feedback function
- Central switching function with collective feedback
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with switch-off warning

Blinds function

- Suitable for 110 / 230 V AC motors
- Blind/shutter position directly controllable
- Slat position directly controllable
- Feedback of movement status, blind/shutter position and slat position
- Forced position through higher-level controller
- Safety function: rain alarm, frost alarm, 3 independent wind alarms
- Sun protection function

Function of valve drives

- Switching operation or PWM operation
- Continuous control of valve drives with 0-10 V interface
- Valve drives with characteristics "normally open" or "normally closed" can be controlled

HVAC function

- Integrated room temperature control with setpoint specification
- Controller function for heating and cooling
- Protection against jamming valves
- Emergency operation in case of bus voltage failure for summer and winter
- Forced position
- Various setpoints for forced position or emergency operation in case of bus failure for summer or winter
- Cyclical monitoring of the input signals can be parameterised

Dimming function

- Automatic or manual setting of the dimming principle suitable for the load
- No-load protection
- Electronic short-circuit protection
- Electronic over-temperature protection
- Signal in the event of a short-circuit, power failure and overload
- Parameterisable switch-on and dimming behaviour
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with switch-off warning
- Power failure longer than approx. 5 seconds causes the dimming outputs to switch off. Depending on the parameter setting, the connected load is calibrated after voltage return.
- Power extension possible by connecting dimming outputs in parallel

Analogue outputs 0-10 V

- Connection of 0-10 V control cable of valves or fan motors
- Connection of 0-10 V control cable of thermal valve drives
- Short-circuit proof

Satellite units

- Connection of floating contacts, such as push-buttons, switches or reed contacts
- Polling with a pulsed current avoids contact contamination (formation of an oxide layer) on the connected contacts
- Operating functions: switching, dimming, blind, scene or room temperature control
- Value transmitter for dimming, colour temperature, RGBW, temperature or brightness values
- Transmitting the current input status after bus voltage failure

- Connection of door or window contacts for evaluation of the open, closed, tilted and handle position statuses
- Connection of motion detector mini basic (ref.-no.: BM 360 MB WW), condensation (ref.-no.: BTS 01), leakage sensors (ref.-no.: LES 01) and external temperature sensor (ref.-no.: FF NTC)
- Pulse counter with main and intermediate meters
- Combination of adjacent input channels when connecting push-button, door or window contact
- Connection of LED e.g. LED lamp, 5 V DC, 2.2 mA (ref.-no. 9605 LED ..)
- Short-circuit proof, overload protected and protected against polarity reversal
- Parallel switching of outputs possible, for electrical loads with higher current requirements

Technical data

Rated voltage:	AC 110/230 V ~
Mains frequency:	50/60 Hz
Ambient temperature:	-5 ... +45 °C
Storage/transport temperature:	-25 ... +70 °C
Power loss:	max. 14 W
Stand-by power:	max. 0.55 W
Dimming outputs A1 ... A4	
Connected load:	see operating instructions
Electrothermal valve drives:	max. 4 (230 V), 2 (110 V)
Analogue outputs 0-10 V A5 ... A7	
Control voltage:	0 ... 10 V
Current carrying capacity:	10 mA
Relay outputs A8 ... A15	
Switching voltage:	AC 230 V ~
Switching current:	16 A
AX load:	16 AX
External ballasts:	16 A, 140 µF
Current rating A8 ... A15:	80 A
Neighbouring outputs:	20 A
Ohmic load:	3680 W
Connected load:	see operating instructions
Relay outputs A16 ... A17	
Switching voltage:	AC 230 V ~
Switching current:	8 A
AX load:	4 AX
External ballasts:	8 A, 96 µF
Current rating A16 ... A17:	16 A
Ohmic load:	1800 W
Connected load:	see operating instructions
Satellite units	
Output voltage:	DC 5 V SELV
Output current 1 ... 4:	max. 3.2 mA
Cable length:	max. 30 m
Cable type:	J-Y(St)Y 2 x 2 x 0.8 mm
Mounting width:	144 mm (8 rail units)
KNX medium:	TP 256
Commissioning mode:	S-mode
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	14 ... 24 mA

Connection, KNX:

connection terminal

