

## RS485 bus connector FBV12-12V DC



valid for devices from production week 14/12  
(see bottom side of housing)

Bus connector for the Eltako RS485 bus.  
Only 0.1 watt standby loss.

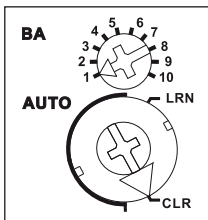
Modular device for DIN-EN 60715 TH35 rail mounting.  
1 module = 18mm wide, 58mm deep.

The bus connector transmits up to 35 selected and taught-in signals from an Eltako RS485 bus to another Eltako RS485 bus. In this way, signals can be transmitted over large distances with a 2-wire bus to avoid using a repeater to transmit more remote sensing signals to their associated switching actuators, for example for central control commands spanning several floors.

The bus connector must be installed behind its FAM12 according to the connection example in bus 2 because the bus 2 bus lines RSA and RSB must be looped through the bus connector.

The sensors, whose telegrams are to be transmitted from bus 1 to bus 2 must first be taught-in in the bus connector before they are additionally taught-in in the corresponding actuators in bus 2, according to their operation manuals. In operating mode 4-6 FSU12D and FTS12EM only have to be taught-in in the actuators of bus 2.

### Function rotary switches



The upper function rotary switch has the following functions:

#### Operating mode 1:

All into FBV12 taught-in bus 1 signals are unchanged transmitted to bus 2.

#### Operating mode 2:

All into FBV12 taught-in bus 1 signals are unchanged transmitted to bus 2. However FSU12D and FTS12EM signals have a 256 points greater identification number (ID).

#### Operating mode 3:

All into FBV12 taught-in bus 1 signals are unchanged transmitted to bus 2. However FSU12D and FTS12EM signals have a 512 points greater identification number (ID).

#### Operating mode 4:

FSU12D and FTS12EM signals from bus 1 are unchanged transmitted from bus 1 to bus 2 without being taught-in into the FBV12. All other signals have to be taught-in into the FBV12 for transmission to bus 2.

#### Operating mode 5:

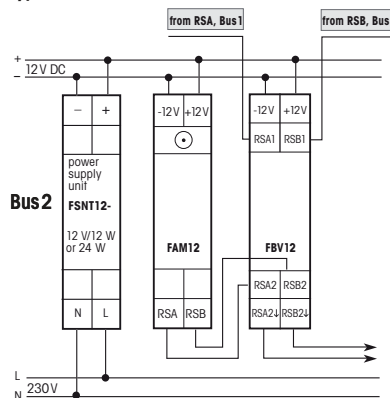
FSU12D and FTS12EM signals from bus 1 are transmitted with a 256 points greater identification number from bus 1 to bus 2 without being taught-in into the FBV12. All other signals have to be taught-in into the FBV12 for transmission to bus 2.

#### Operating mode 6:

and FTS12EM signals from bus 1 are transmitted with a 512 points greater identification number from bus 1 to bus 2 without being taught-in into the FBV12. All other signals have to be taught-in into the FBV12 for transmission to bus 2.

**In the operating mode 4, 5 and 6 a maximum of 30 FTS12EM can be operated in bus 1 and bus 2 with two FBV12 and 10 switches each.**

### Typical connection



Bus 1 signals are tapped by RSA/RSB and transmitted directly to the antenna module FAM12 in Bus 2.

### Teaching-in bus connector FBV12

The teach-in memory is empty on delivery from the factory. If you are unsure whether the teach-in memory contains something or not, you must first **clear the memory contents completely**:

Set the bottom rotary switch to 'CLR'.

The LED flashes at a high rate. Within the next 10 seconds, turn the upper rotary switch three times to the right stop (turn clockwise) and then turn back away from the stop.

The LED stops flashing and goes out after 2 seconds. All taught-in sensors are cleared.

### Clear individual taught-in sensors:

Set the bottom rotary switch to 'CLR'.

The LED flashes at a high rate. Then operate the sensor. The LED stops flashing and goes out after 2 seconds.

### Teaching-in sensors

1. Set the bottom rotary switch to 'LRN'.

The LED flashes at a low rate.

2. Operate the sensor to be taught-in.

The LED goes out. A transmitter module (one fitted in FT4 and FMH, 2 in FHS8 and 3 in FHS12) need only be operated once at any location.

To teach-in further sensors, turn the bottom rotary switch briefly away from position 'LRN'. Continue the procedure from pos 1.

After teaching-in the sensors also acting on Bus 2, set the bottom rotary switch to 'AUTO' and the top rotary switch to 1 to 6.

**Now the sensors can also be taught-in in the associated actuators of Bus 2 as described in the relevant operating instructions.**



When an actuator is ready for teach-in (the LED flashes at a low rate), the very next incoming signal is taught-in. Therefore, make absolutely sure that you do not activate any other sensors during the teach-in phase.

## Important note!

**Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!**