

Bus Extender

TapHome Bus Extender adds 4 RS485 ports – 2 isolated and 2 non-isolated. For TapHome Bus and Modbus RTU. USB chaining, 2M DIN rail.




Quick Facts

Dimensions	36 × 59 × 58 mm
Operating temperature	-20 ... 80 °C
IP rating	IP20
Power consumption	1.5 W

The Bus Extender connects to the Core via USB and adds 4 bus ports to the system: 2 non-isolated and 2 galvanically isolated. It also includes a USB port for connecting additional devices. All 4 ports support RS485 communication, which is used for TapHome Bus or Modbus RTU communication.

Warning: To support the Bus extender, you need to have an updated OS Image to version 2.8 or higher. If you have an older control unit with an older OS Image, contact technical support.

Order Code	BUS-EXTENDER-DIN-1.1
EAN	 8586022930393

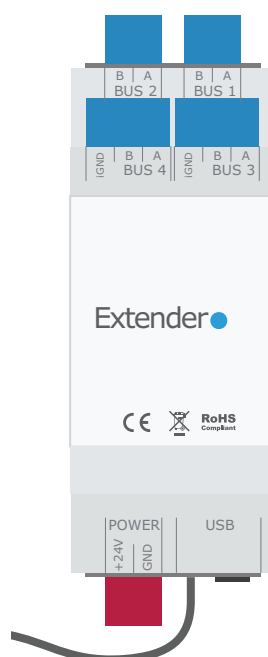
Technical Specifications

ELECTRICAL	
Power supply	24 VDC \pm 10%
Power consumption (idle)	2 W
Galvanic isolation	Yes (2 ports)
INTERFACE	
Bus ports	4 (2 galvanically isolated)

Terminal Connectors

Connector	Pins	Wire range	Strip length
● Power	+24V, GND	0.2–4 mm ² (30–12 AWG)	6.5–7.5 mm
● Bus 1	Bus A, Bus B	0.2–4 mm ² (30–12 AWG)	6.5–7.5 mm
● Bus 2	Bus A, Bus B	0.2–4 mm ² (30–12 AWG)	6.5–7.5 mm
● Bus 3	A, B, iGND	0.2–4 mm ² (30–12 AWG)	6.5–7.5 mm
● Bus 4	A, B, iGND	0.2–4 mm ² (30–12 AWG)	6.5–7.5 mm
● USB OUT	USB Type-A (kábel)	mm ² (AWG)	mm
● USB IN	USB Type-A female	mm ² (AWG)	mm

Wiring Diagram



Features

- Power supply: 15-24VDC
- Bus 1, 2: non-isolated RS485 bus (A, B)
- Bus 3, 4: galvanically isolated RS485 bus (A, B, iGND)
- Current consumption without USB OUT connected: max. 60 mA
- Ambient temperature: -20 - 80°C
- DIN rail, 2 modules. Width 36mm, height 59mm.

Installation notes

Isolated bus is required if at least one of the following conditions is met:

- External device is powered from a different source without galvanic isolation (e.g. recovery unit)
- When connecting bus devices, if the bus cable goes outside the building where the Core is installed (e.g. garden house). In this case, separate power supply is required for devices on the isolated bus.

Additional USB devices can be chained using the USB port, for example, up to 3 more Bus Extenders.

If the bus cable is too long and the connected modules have higher power consumption, isolated bus (Bus 3, 4) should be used due to voltage drop. For modules with low power consumption and cable length up to 150m, non-isolated bus (Bus 1, 2) can be used.

On isolated buses, it is recommended to also connect the ground so that A and B are at the correct voltage potential. Communication should work even without iGND connected.



Product page

<https://hardware.taphome.com/bus-extender/>

