ADPRO® FastTrace™ 2 Hybrid

USB to RS485 – 8 channel distribution unit

The USB to RS485 distribution unit provides 8 channels (1 PIR unit per channel) to easily connect and configure the PIR detectors to the FastTrace 2 server.

Up to 8 PIRs can be connected through star wiring to the USB to RS485 distribution unit. Only the 485 bidirectional communication of the PIRs is used, we do not use the mechanical PIR tampers. It is possible to connect 4 distribution units *in cascade* (= only one of the 4 distribution units need to be connected to the FastTrace 2, but the cables between the other units should not exceed more than 3 feet / 1 metre), so a maximum of 32 PIR devices can be supported by the FastTrace 2.

The unit contains a USB connection port for communication with the FastTrace 2 video system. Mind: only the TTY2 can be used! The USB cable between distribution unit and FastTrace 2 server should be as short as possible (and certainly not more than 3 feet / 1 metre).

Ordering information

Please use the following reference numbers when ordering with Xtralis.

Part	Order number
USB to RS485 8 channel distribution unit	49841030
USB to RS485 8 channel distribution pcb	39544350

Technical specifications

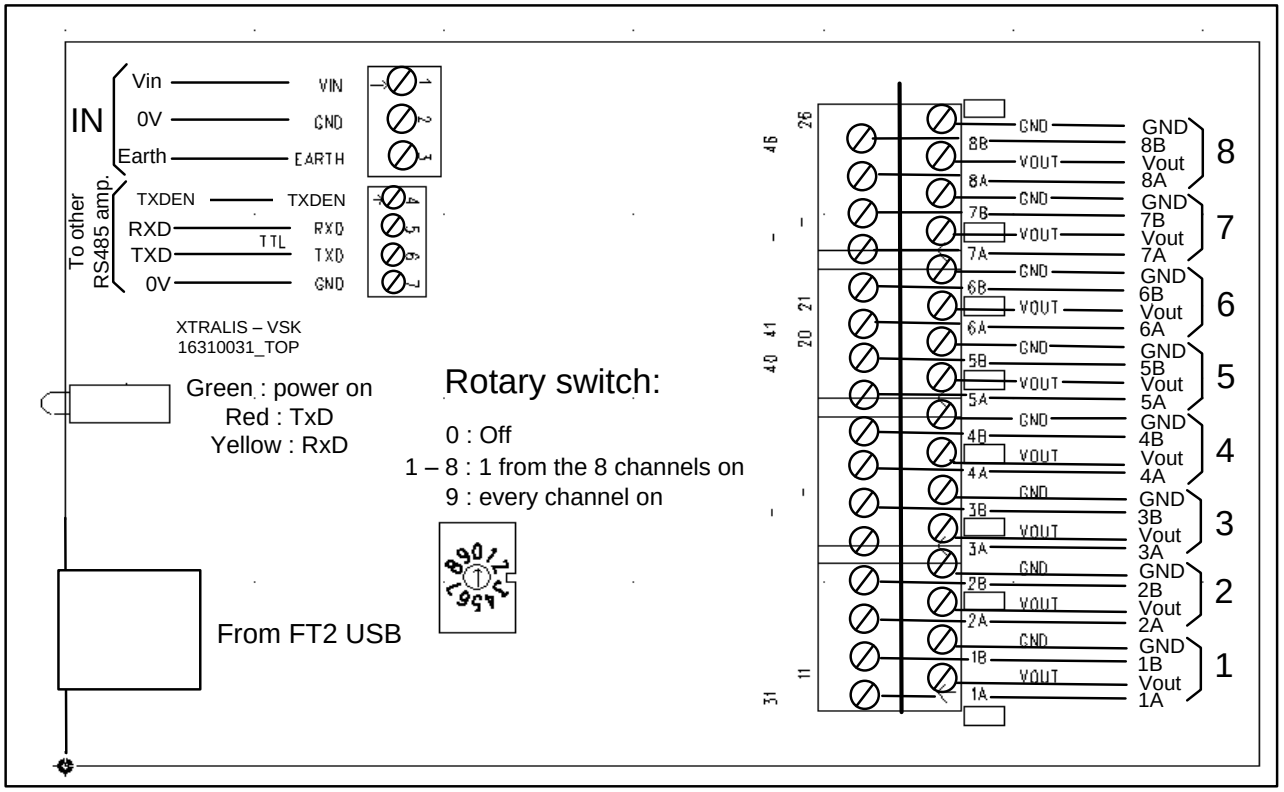
Operating temperature	-10° C <> +55° C
Relative humidity	91%
Dimensions	PCB: 160 mm x 100 mm (euro card format) Box: 164 mm x 105 mm x 34 mm
Alimentation unit (*)	12.5 – 28 V DC
Consumption pcb (without PIRs)	max. 70 mA (all 8 channels active) 0 channels = 12 mA 1 channel = 20 mA
Consumption PIR	max. 2W with heating (alimentation 10.5 – 30 V)
Maximum cable length (*)	219 yards (200 metres)
Sufficient MW adapter	GE24I15-P1J GS25A15-P1J GS25E15-P1J
3 LEDs	▪ Green LED: alimentation is ON ▪ Red LED: Transmission to PIRs active ▪ Yellow LED: Receiving data from PIRs

(*) The tension towards the PIR detectors can be provided by the distribution unit (with short circuit security). The maximum cable length is then limited to 200 metres. When the cable length exceeds the 219 yards / 200 metres limit, the PIR detectors will also have to be powered individually through a local adapter.

Wiring

The ADPRO PIR detector is connected to a 485 bus of the distribution unit by means of the RS485 cable. There is no use of the PIR tampers!

Connect the +485 to the xA terminal of the distribution unit 485 bus (x stands for 1 to 8 buses in star wiring). Connect the -485 to the xB terminal of the distribution unit 485 bus.
The PIR alimentation needs to be connected between Vout and GND, while the unit alimentation (adapter) is connected between Vin and GND.



The end of lines with the PIR devices need not be terminated, due to the low baudrate (9600). If terminated there will be an extra consumption of 200 mA per unit, which might lead to overload on the proposed Meanwell alimentation adapters.

Configuration

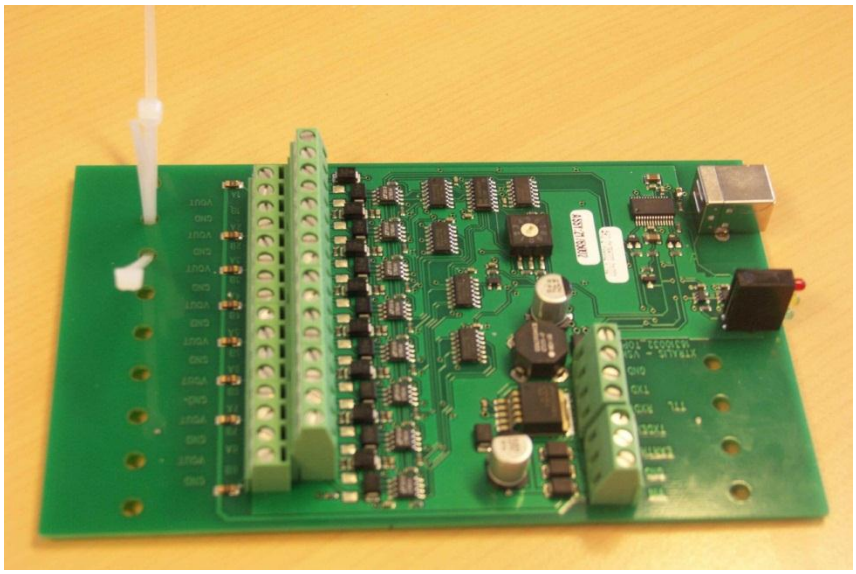
When acquiring a PIR detector, the default address is set to 1. This can be easily changed by using the USB to RS485 distribution unit in combination with the ADPRO PIR software. Connect the PIR directly to one of the 485 buses on the distribution unit and connect the unit to a PC with the ADPRO PIR software (do not connect the distribution unit to the FastTrace 2 server at this point!).

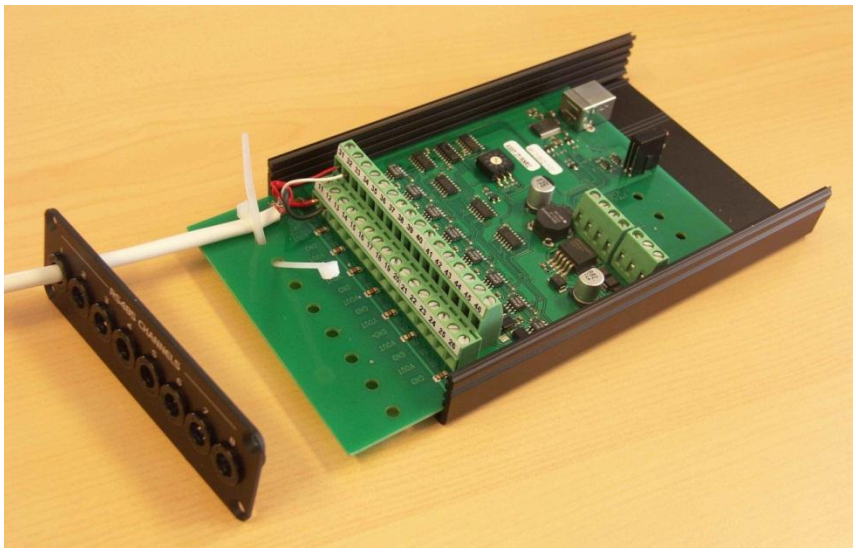
Select the 485 buses one by one using the rotary switch on the distribution unit (pcb). Start out with 0 and continue up to 8. When all PIR devices have been configured, set the rotary switch to 9, thus activating all buses and consequently also all PIR devices.

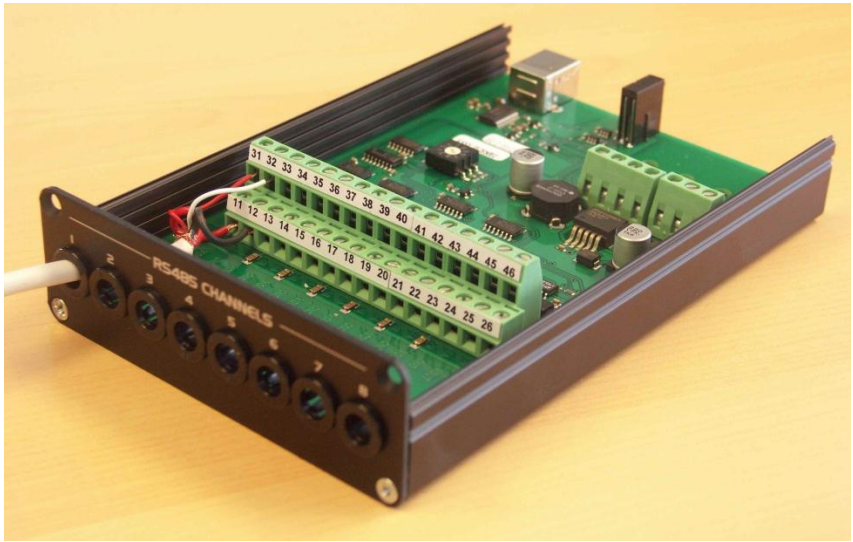
Connect the distribution unit to the FastTrace 2 server. In the FastTrace 2 Client, set the serial port to PIR and edit the PIR settings when necessary. The FastTrace 2 video system will automatically detect all connected PIR devices through the distribution unit.

Mounting

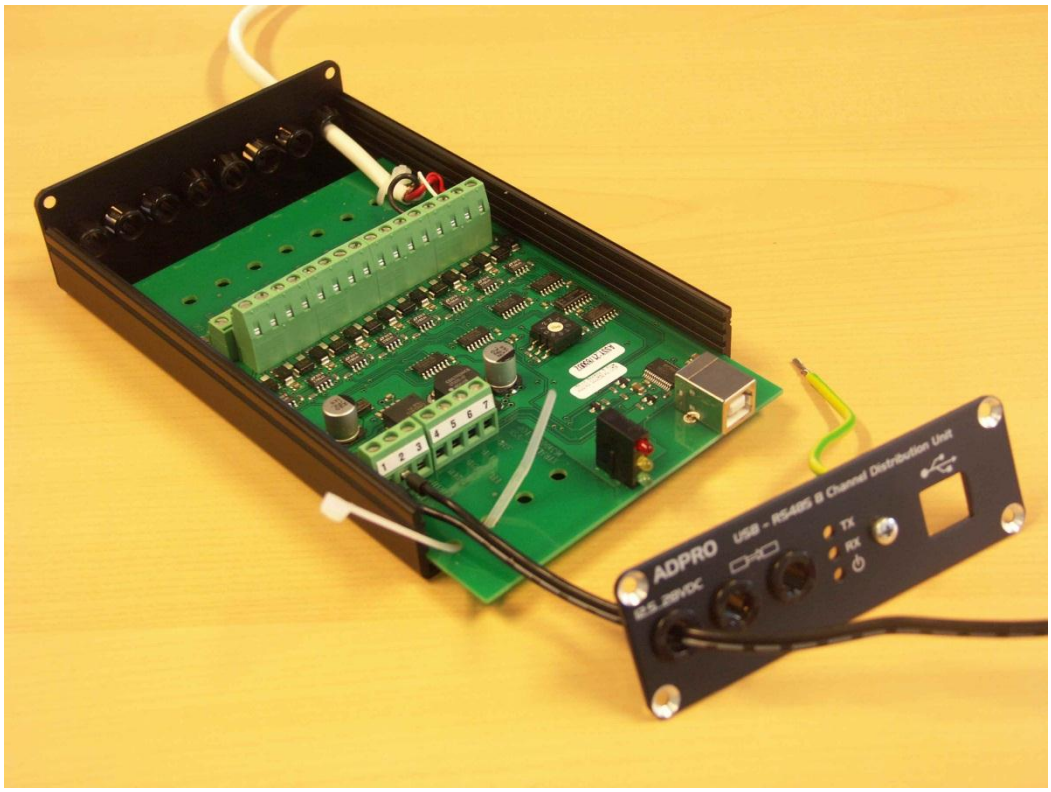
When mounting the bus into the casing, please use tie wraps (included in the product) to fix the cables.

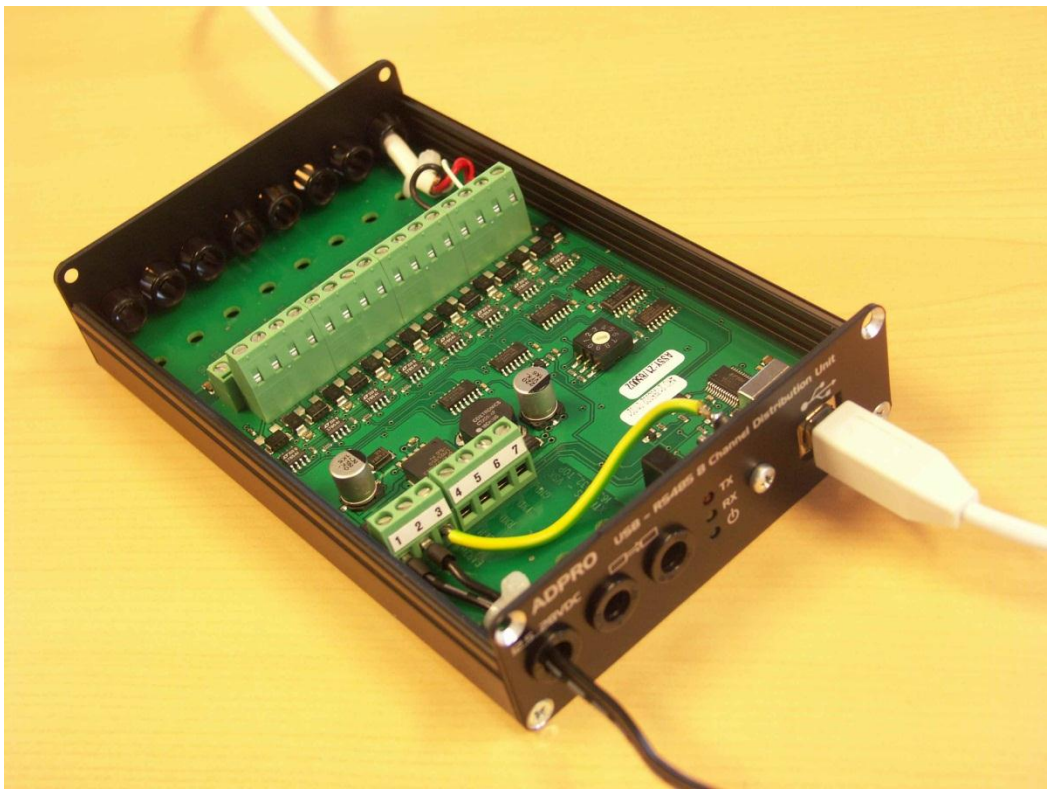




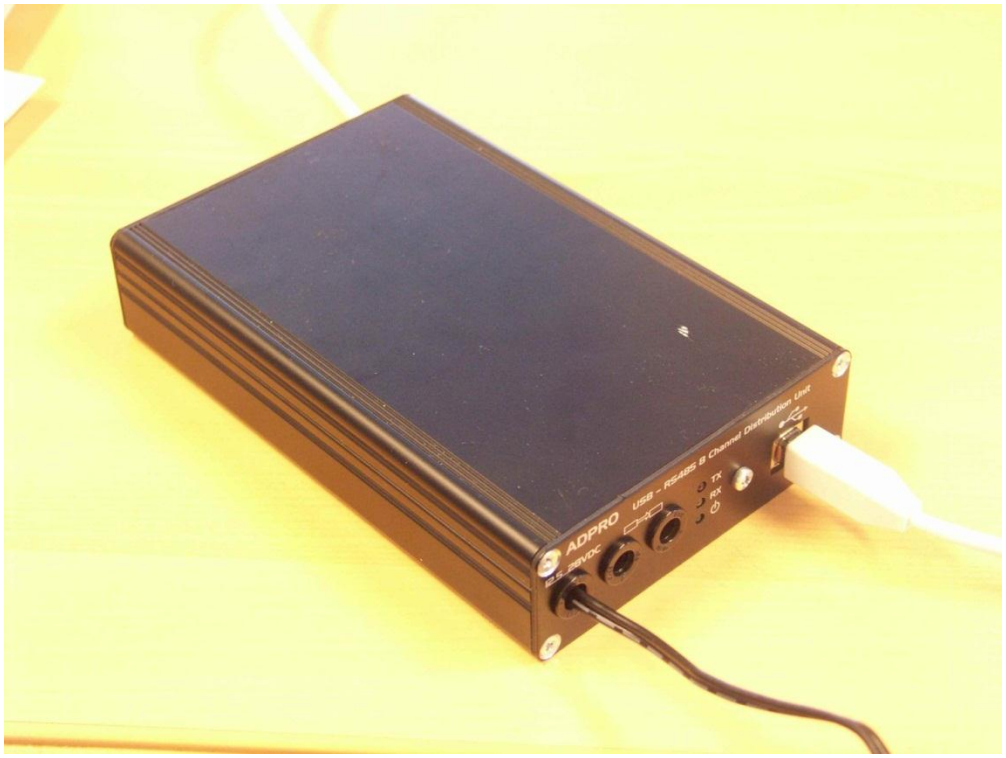


When adding the front plate, make sure the cables are connected correctly. Then fix them with tie wraps so that they cannot loosen easily.





Put the top cover on and fix it with the screws.


ADPRO
USB - RS485 8 Channel Distribution Unit
TX
RX


RS485 CHANNELS
1
2
3
4
5
6
7
8