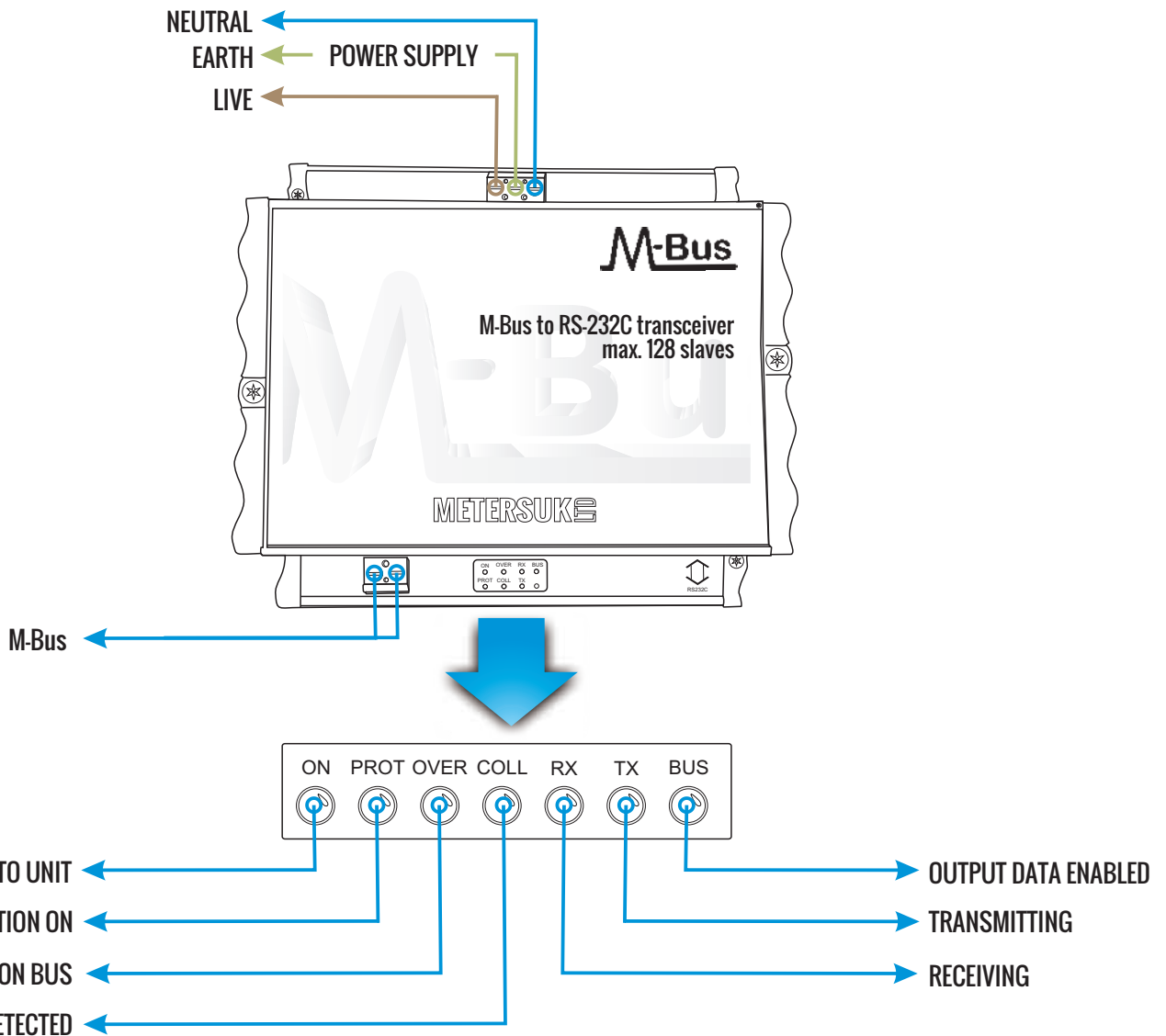
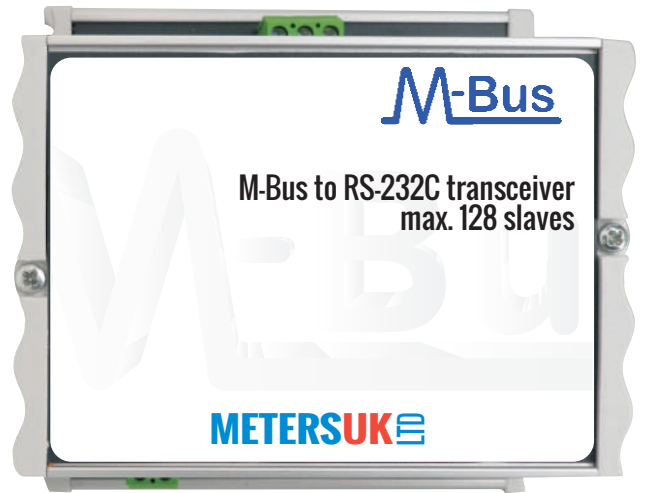


# M-Bus Master 128 PORT

## DESCRIPTION

The MBRS-128 is a microprocessor full-duplex M-Bus to the RS-232C converter, capable of supplying up to 128 standard M-Bus slave devices. It is intended for use in buildings and industrial installations and mainly for remote reading of the readings of tariff instruments or different sensors.

It is protected by a short circuit in the output. The installation is carried out on a standard M36 DIN rail



## FEATURES

Maximum number of M-Bus Slave Devices	128
Maximum Output Current	210 mAmp
Output Protection Level	230 mAmp
Nominal Output Voltage	36 VDC +/- 1 V
Zero Output Voltage 'O' (space)	22/25 VDC
Power Supply Voltage	150-250 VAC (200-350 VDC)
Max Power Consumption	11.5w with 128 bus slaves connected
IP Protection Class	IP44
Dimensions H*W*D	105 * 107 * 74mm
Weight	390g
Maximum Transmissible Signal Baud Rate	4800bps
Maximum Distance between master and slave in the network	1200m
Display	7 LED's

## OPERATIONAL DATA

The MBRS-128 starts operating immediately after powering up. Sequence as follows:

### Primary Initialization Mode (0.2-0.3 s)

For about 0.2-0.3 s, the device initializes. During this time, the output is forbidden and has a voltage of 0 V. The LED 'on' (on) and 'prot' (protection) illuminate. The output is allowed, the consumption of subordinate devices is measured. The 'prot' LED turns off, LEDs 'bus' (enabled) and 'TX' (transmit) light up. In the case of a short-circuit, the output is forbidden and waiting a few seconds before its next resolving, the 'prot' LED goes out and the bus and the 'TX'

### Normal operation mode

The consumption of the connected slave devices is continuously measured, and the 'over' LED is exceeded when the value exceeds 210 mA. If the value of 230 mA is exceeded, the output is forbidden. When connecting the device to a computer (or other data capture device) via the RS-232C interface, the external device can transmit data to each of the slave devices on the network, with MBRS-128 acting as a 'bridge' to connect between the computer and the network.

Data is transmitted directly without delay. When transmitting information from a slave, it is decoded and sent to the serial port without delay, the 'RX' LED blinks. Concurrent bidirectional data transmission is possible. If collision occurs (simultaneous data transmission from more than one slave), a coll (LED) light flashes and the data is still sent to the RS-232 interface.

MBRS-128 is mounted on a standard M36 DIN rail. All external connections are made with insulated conductors with a cross section of 0.25mm<sup>2</sup> ÷ 2.5mm<sup>2</sup>.

The links are shown in the following table:-

### C1 "Power" - a non-removable three-pole terminal

1 & 3	input power supply - L, N
2	input power supply - E

### C2 "M-Bus" - a non-dismountable two-pole terminal

1	M-Bus output, +
2	M-Bus output, -

### C3 'RS-232C' - detachable terminal type RJ-45

1,4,6,7,8	do not connect
2	RxD (Receive)
3	TxD (Transmit)
5	GND