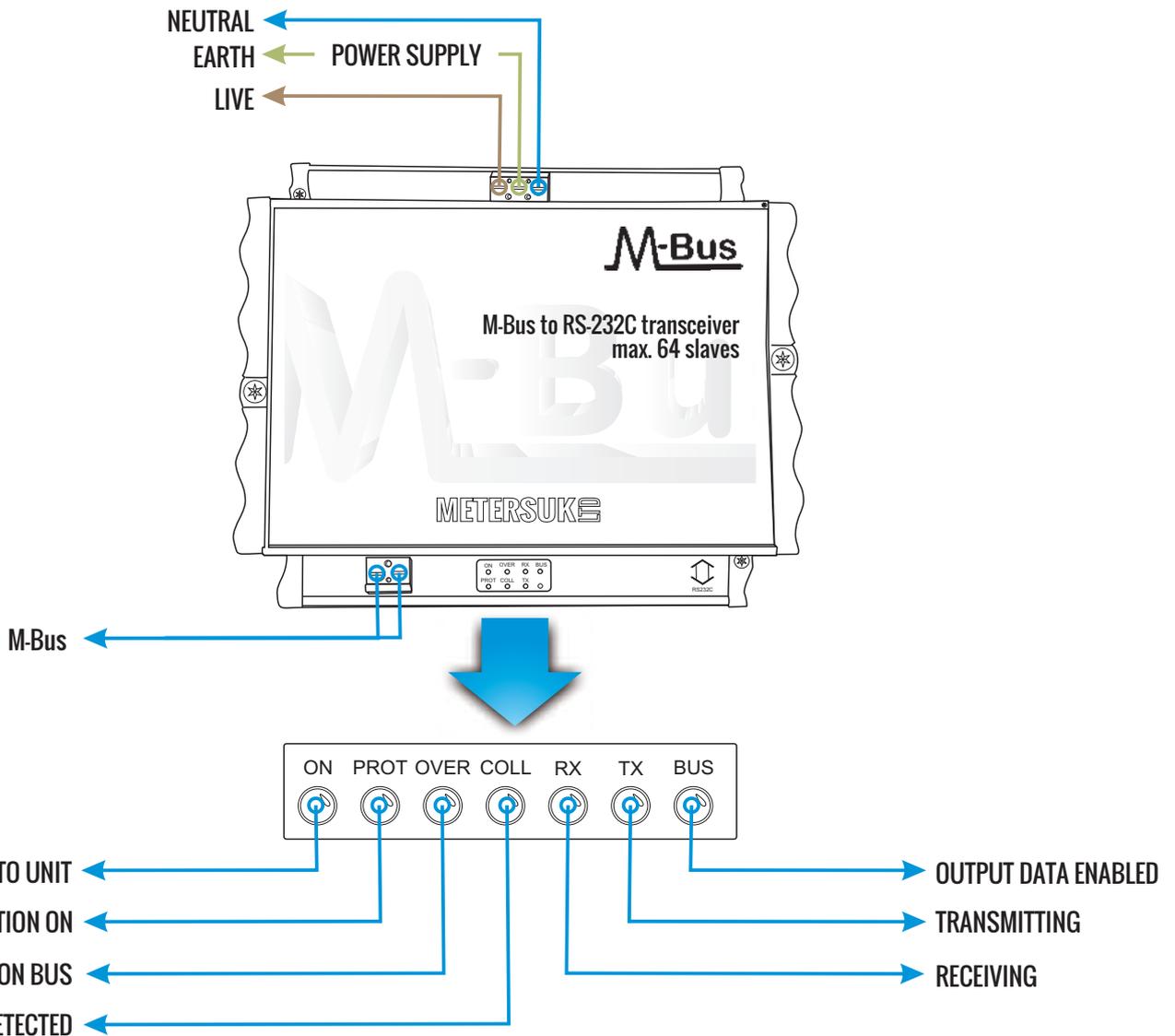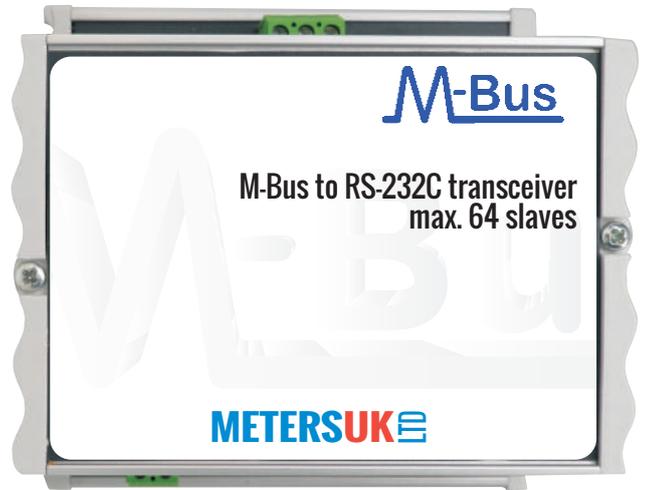# M-Bus Master 64 PORT

DESCRIPTION

The MBRS-64 is a microprocessor full-duplex M-Bus to the RS-232C converter, capable of supplying up to 64 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

NEUTRAL
EARTH — POWER SUPPLY
LIVE

M-Bus

ON	PROT	OVER	COLL	RX	TX	BUS

POWER TO UNIT

CIRCUIT PROTECTION ON

OVERLOAD ON BUS

COLLISION DETECTED

OUTPUT DATA ENABLED

TRANSMITTING

RECEIVING

FEATURES

Maximum number of M-Bus Slave Devices	64
Maximum Output Current	120 mAmp
Output Protection Level	140 mAmp
Nominal Output Voltage	36 VDC +/- 1 V
Zero Output Voltage 'O' (space)	22/25 VDC
Power Supply Voltage	170-250 VAC (200-350 VDC)
Max Power Consumption	8.5w with 64 bus slaves connected
IP Protection Class	IP30
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

OPERATIONAL DATA

The MBRS-64 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 140 mA. If the value of 150 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-64 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-64 is mounted on a standard M36 DIN rail. All external connections are made with insulated conductors with a cross section of 0.25mm² ÷ 2.5mm².

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