

BIALON MPW-120

M-Bus level converter



- M-Bus level converter for up to 120 M-Bus endpoints (standard load: 1.5 mA)
- RS-232 interface electrically isolated
- Transfer rates 300 to 9600 baud
- Full M-Bus voltage of 36 V to 42 V
- Integrated overcurrent protection
- Overvoltage protection
- 4 parallel M-Bus connections available
- Optionally available with 230 V AC or 24 V AC/DC voltage supply
- Housing as per EN 50022 for installation on DIN support rails

The M-Bus BIALON MPW-120 level converter lets you connect up to 120 M-Bus endpoints (with a standard load of 1.5 mA each) to an M-Bus Master via an RS-232 connection. The M-Bus Master can be, e.g., a PC or an embedded controller. The level converter translates the signals from the M-Bus Master on the RS-232 interface to M-Bus signals. The M-Bus Master is connected to the level converter via terminals 5 to 7, (TD, RD and GND).

The level converter has overload protection and is thus short-circuit protected. The trip threshold is 200 mA. Additionally, the M-Bus interface has overvoltage protection on the bus side.

The LEDs indicate the major operational and malfunction states, such as power supply, send or receive data, and bus overload.

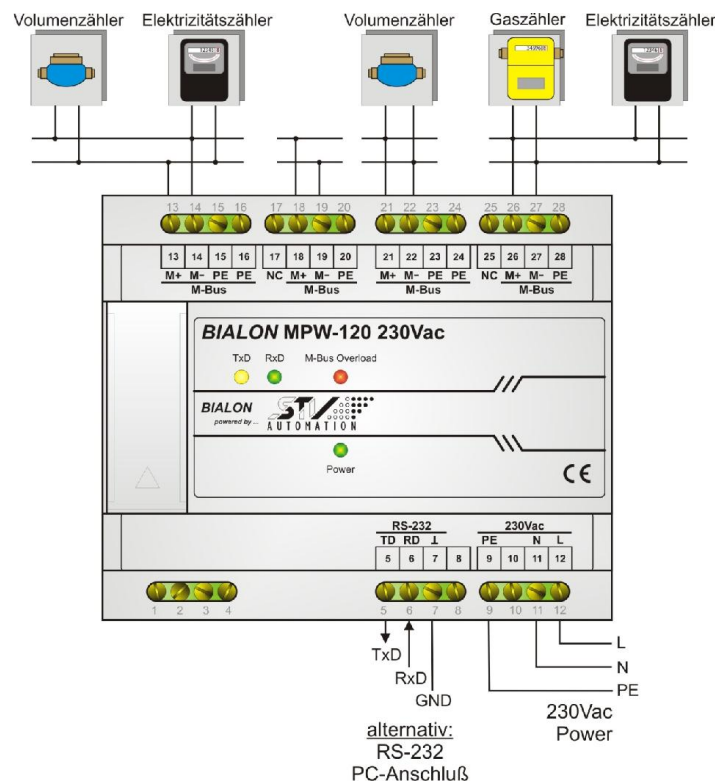
The M-Bus BIALON MPW-120 level converter is available in two variants with a 230 V AC or 24 V AC/DC power supply.

Order details

Description	Order number
BIALON MPW-120 230 V AC	095168
BIALON MPW-120 24 V AC/DC	095169
PC connection cable (9-pin D-SUB/RJ12)	095045

Properties of the M-Bus system:

- standardised European field bus (EN1434-3)
- Wire pair bus with power supply to bus nodes (M-Bus standard load = 1.5 mA)
- M-Bus is reverse polarity protected
- Acquisition of consumption data (heat, water, gas, electricity, etc.)
- Communication with M-Bus sensors and actuators supported
- Energy monitoring and optimisation
- For use in industrial and domestic applications
- No special requirements for the bus cable (installation wiring or phone wire sufficient)
- Optional wiring topology (star, tree, bus)
- Long range (up to several kilometres)
- Good availability of system components
- Good cost/performance ratio



Technical data

Supply voltage	110 V to 250 V AC or 20 V to 28 V AC/DC		
M-Bus voltage	36 V to 42 V		
max. M-Bus idle current	200 mA (120 standard loads)		
Excess current threshold	<180 mA		
Electrical isolation	between RS-232 and MPW-60		
Transfer rate	RS-232: 300 ... 9600 baud		
Displays	LED green: power on LED yellow: Transmit M-Bus LED green: Receive M-Bus LED red: Bus Overload		
M-Bus connection	4 separate terminal pairs max. 2.5 mm ²		
R-S232 connection	Terminals max. 2.5 mm ²	TD	(RxD from PC)
		RD	(TxD from PC)
		GND	(GND from PC)
Operating temperature	0 ... 40 °C		
Relative humidity	0 ... 90 % (non-condensing)		
Housing	as per EN 50022 for installation on DIN support channels, 6 separation units		
Protection type	IP 20 as per DIN EN 60529		
Dimensions (L x W x H)	108 x 90 x 66 mm (6 SU)		

Technical changes reserved

Rev. 1

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