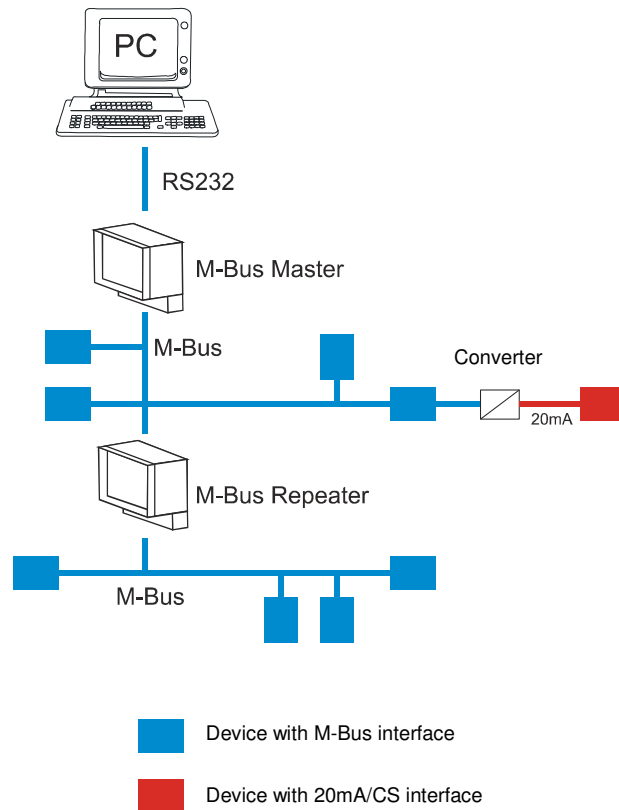


## General

The M-Bus system is a data transmission system for acquiring, evaluating, optimizing and controlling energy and process data. Modular components permit networking of a large number of different energy meters and computer-controlled terminals. The high degree of noise immunity, even in noisy environments, ensures reliably and error-free measured value transmission. Via modem interfaces, it is also possible to cover large distances to connect modular expansions or complex substation systems. The M-Bus system is the system preferred by operators supplying numerous consumers (e.g. industry and technology parks, trade fairs, building managements, etc.).



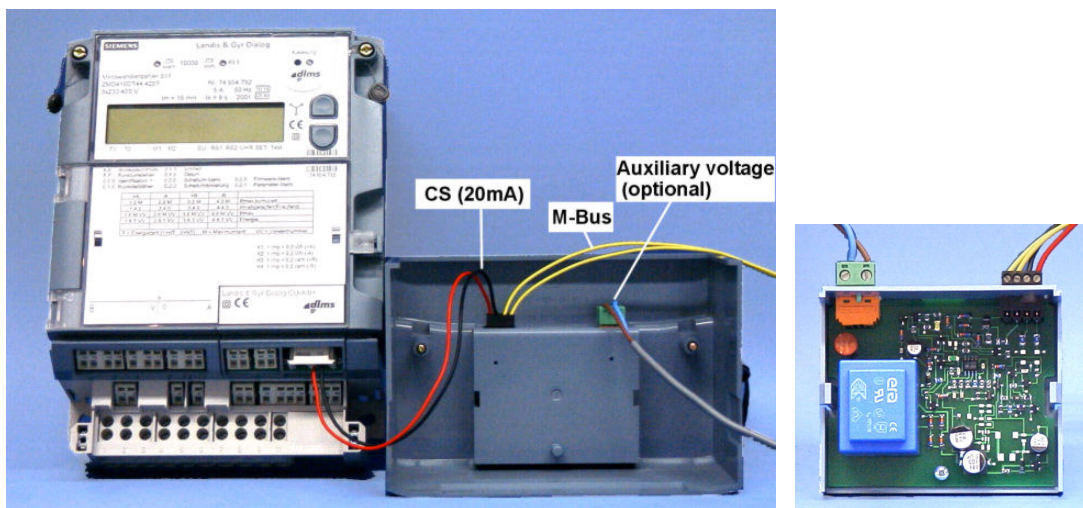
## Brief Description

The converter is used to adapt physically two interfaces and to separate them galvanically:

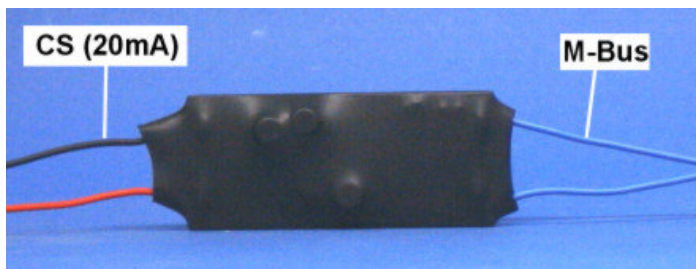
- M-Bus-Interface passive: function „Slave“
- 20mA-Interface active: networking of one or more meters.

The converter can be designed as a:

- Version 1 (for Landis+Gyr ZMD meter only): with auxiliary voltage (e.g.: 230VAC or 110VAC) for connecting up to 8 meters with 20mA-Interface.
- Version 2 (for Landis+Gyr ZMD meter only): without auxiliary voltage for connecting of one meter with 20mA-Interface.
- Version 3 (universal): without auxiliary voltage for connecting of every one meter with 20mA-Interface
- Version 4 (top-hat rail installation): with auxiliary voltage (e.g.: 230VAC or 110VAC) for connecting up to 8 meters with 20mA-Interface.



Version 1 and 2 (in the Picture: Version 1 with auxiliary voltage) for Landis+Gyr ZMD meter only.



Version 3: with four cables for universal use.

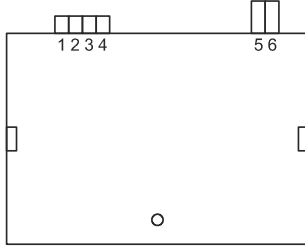


Version 4: top-hat rail installation

## Terminal assignment

### Version 1 (#10262)

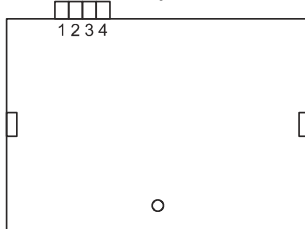
For Landis+Gyr ZMD meter only (terminal block with auxiliary voltage):



- 1: + 20mA/CS
- 2: - 20mA/CS
- 3: M-Bus
- 4: M-Bus
- 5: Auxiliary voltage (230VAC or 110VAC)
- 6: Auxiliary voltage (230VAC or 110VAC)

### Version 2 (#10276)

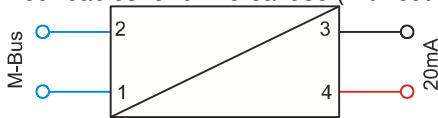
For Landis+Gyr ZMD meter only (terminal block with out auxiliary voltage):



- 1: + 20mA/CS
- 2: - 20mA/CS
- 3: M-Bus
- 4: M-Bus

### Version 3 (#10243)

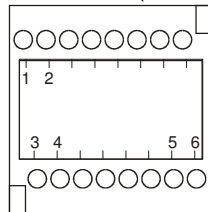
Four cables for universal use (with out auxiliary voltage):



- 1 (blue): M-Bus
- 2 (blue): M-Bus
- 3 (black): - 20mA/CS
- 4 (red): + 20mA/CS

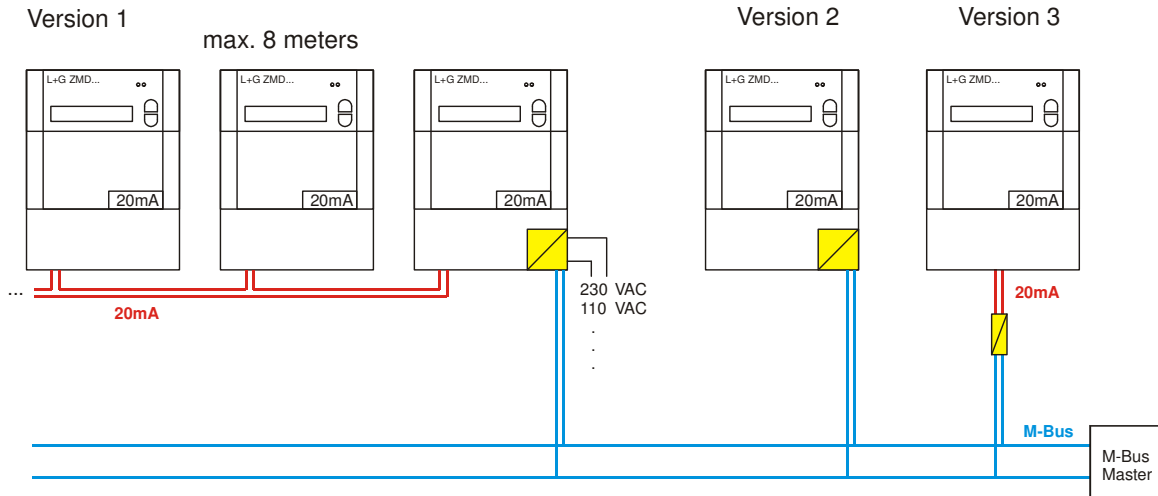
### Version 4 (#10521)

Top-hat rail installation (with auxiliary voltage):



- 1: Auxiliary voltage (230VAC or 110VAC)
- 2: Auxiliary voltage (230VAC or 110VAC)
- 3: M-Bus
- 4: M-Bus
- 5: + 20mA/CS
- 6: - 20mA/CS

## Examples



## Technical Data

Housing:	Version 1 and 2: into terminal cover for ZMD Version 3: with four cables Version 4: top-hat rail installation
Degree of protection:	Version 1 and 2: IP52 (in the terminal cover) Version 3: IP30 Version 4: IP52
Dimensions:	Version 1 and 2: W = 80mm, H = 15mm, D = 70mm Version 3: W = 90mm, H = 15mm, D = 35mm Version 4: W = 75mm, H = 73mm, D = 114mm
Protection class:	2
Auxiliary voltage:	Version 1 and 4: 230V~ or 110V~ Version 2 and 3: none
Number of terminals:	Version 1: six terminals (incl. auxiliary voltage) Version 2: four terminals Version 3: four cables á 25cm Version 4: six terminals (incl. auxiliary voltage)
Interface:	<ul style="list-style-type: none"> <li>• M-Bus passive according to DIN EN 1434-3, M-Bus standard load: Version 1 and 4: max. 1,5mA from M-Bus Version 2 and 3: max. 7,5mA (:= 5 M-Bus standard load)</li> <li>• 20mA active (CS) according to IEC 62056-21, Version 1 and 4: max. 15mA with 27V output voltage Version 2 and 3: max. 12mA with 6V output voltage</li> </ul>
Baud rate:	up to 9600 Baud
LED:	none
Order number:	Version 1: #10262 (+ information about auxiliary voltage) Version 2: #10276 Version 3: #10243 Version 4: #10521 (+ information about auxiliary voltage)
Extent of delivery:	Version 1 and 2: converter without terminal cover Version 3: converter with four cables á 25cm Version 4: converter for top-hat rail installation
Accessories:	<ul style="list-style-type: none"> <li>- Terminal cover for ZMD (Version 1 and 2 only)</li> <li>- M-Bus Master</li> <li>- M-Bus Repeater</li> <li>- M-Bus Mini-Master</li> <li>- Cable</li> <li>- Software</li> </ul>