

# Data logger – Energy Monitoring made simple



### I/O Expansion modules

MR-CI4	MR-AI8	MR-SI4	MR-DI10	MR-DI4
P/N 1108401332	P/N 11083213	P/N 11083913	P/N 1108311319	P/N 1108341319
4 current inputs 0-20 mA, 4 voltage inputs 0-10 V	8 configurable temperature or voltage inputs	4 S0 inputs	10 digital inputs	4 digital inputs
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MR-AO4	MR-AOP4	MR-TO4	MR-DOA4	MR-DO4
P/N 1108351302	P/N 1108371302	P/N 11083013	P/N 110836132101	P/N 1108361321
4 voltage outputs 0-10 V	4 voltage outputs 0-10 V, manual control facility	4 triac output, manual control facility	4 relay outputs	4 relay outputs, manual control facility
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MR-SM3	MR-TP	MR-DIO4/2S	MR-DIO4/2	MR-MULTI I/O
P/N 11084113	P/N 11083813	P/N 110833132601	P/N 1108331326	P/N 11084313
For captured by three 230 Volt current circuits Current, voltage and power can be measured and determined	6 digital inputs, 2 x two-level relay outputs, manual control facility	4 digital inputs, 2 relay outputs, NO contacts, manual control facility	4 digital inputs, 2 relay outputs, changeover contacts, manual control facility	4 digital outputs (Photo MOS) 4 digital outputs (relay) 11 digital inputs 6 universal inputs (temperature/voltage 1 analog output (current) 2 analog output (voltage) 1 S0 input



MR-LD6

P/N 11084413

6 analog inputs, 2 relay outputs

For monitor electrodes of leakage sensors or the fill level of fluid containers and to switch pumps or magnetic valves



 Jumper bar enables quick and easy installation of expansion modules



Push buttons and LED's for manuel operation and display



- Multi I/O with 24 digital and analogue inputs and outputs
- Adjustable if/than function



- Designed for easy implementation in electrical distribution boards with 45 mm cap
- Compact design (125 mm width) takes up less space in the switch cabinet



 Easy to install and low maintenance with Hardware Management, Electronic- and connection unit separable



 Configure and connect to WLAN Networks with the inbuilt WLAN Interface



 M-Bus Interface with "M-Bus-Master" enables connection to 80 M-Bus loads subscribers



• 1 x Modbus RTU Interface for 32

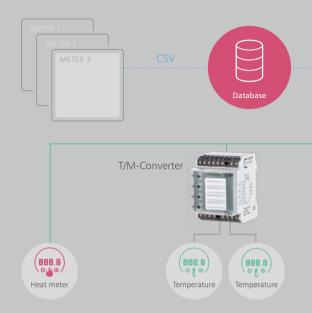


 Dual Core ARM-Cortex-A7 Processor 1Ghz, 512 MB RAM, 4 GB Flash



• 2 x Ethernet ports with Daisy Chain Functionality

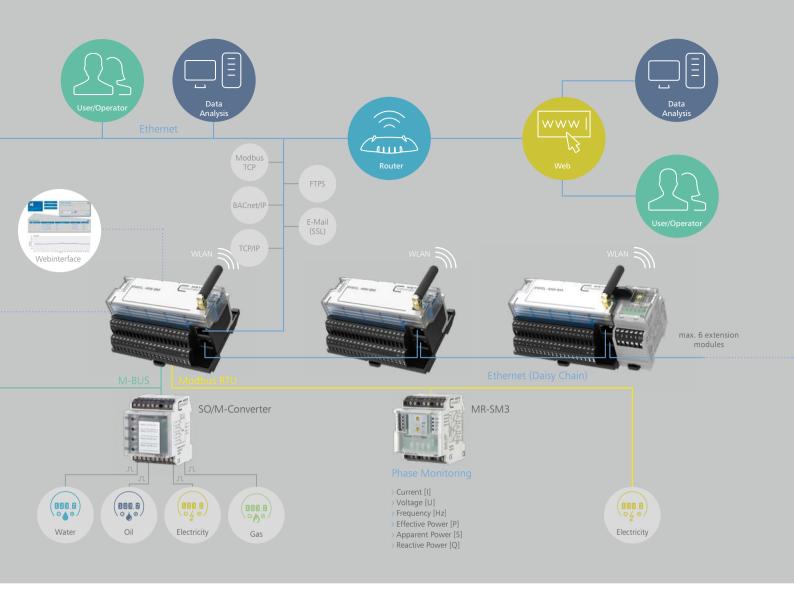




The EWIO<sub>2</sub>-M (Ethernet Web I/O 2nd generation M-Bus) is a powerful data logger designed to record and monitor energy and power consumption in buildings, industrial plants and systems. The multi-protocol capability of the Smart Metering Gateway is made possible with the many different interfaces and connections featured on the device. EWIO<sub>2</sub>-M is designed to help implement energy management systems (according to DIN EN ISO 50001) in to buildings and increase energy efficiency by integrating MSR and HVAC technology.

The EWIO<sub>2</sub>-M allows you to combine both the functions of energy monitoring and building/industrial automation in one device. The data logger interfaces include two Ethernet ports that offer daisy chain functionality to link multiple devices, as well as a WLAN interface\* for connection to the LAN- or WLAN network (operating mode: infrastructure). In the Ad-hoc operation mode, the WLAN interface operates as an access point and thus allows the user to configure

EWIO<sub>2</sub>-M from a mobile device (e.g. smartphone, tablet, notebook). The data logger can be integrated in a Modbus TCP\* or BACnet/IP\* network for control tasks. The configuration, parameter setting, and commissioning of the system takes place via an intuitiv web interface with a platform-independent web browser. Different meters such as electricity, water, gas, heat or other media can be connected and read at the M-Bus and Modbus RTU interfaces. The Recorded values can be sent (push) by E-Mail (SSL) and FTP (SFTP) or can be queried by FTP (SFTP), BACnet- or Modbus controller (pull). The integrated digital and analog inputs and outputs are used to connect sensors and actuators for different building or industrial automation tasks. Small applications can be created directly in the web interface. Complex automation tasks can be carried out by shell script programming or Modbus- and Bacnet control systems. An integrated micro SD memory card offers additional functionality to the EWIO<sub>2</sub>-M and can be used to save particular settings, data/applications, or as a boot drive. In addition,



optional expansion modules for the conversion of physical properties such as temperature or S0 pulses into M-Bus telegrams, the collection of S0 double tariff meters, the expansion of I/O modules or the connection to a UMTS network\*\* create countless expansion options for the system around the  $\rm EWIO_2\text{-}M$ .

\* device model

\*\* available Q4/2019





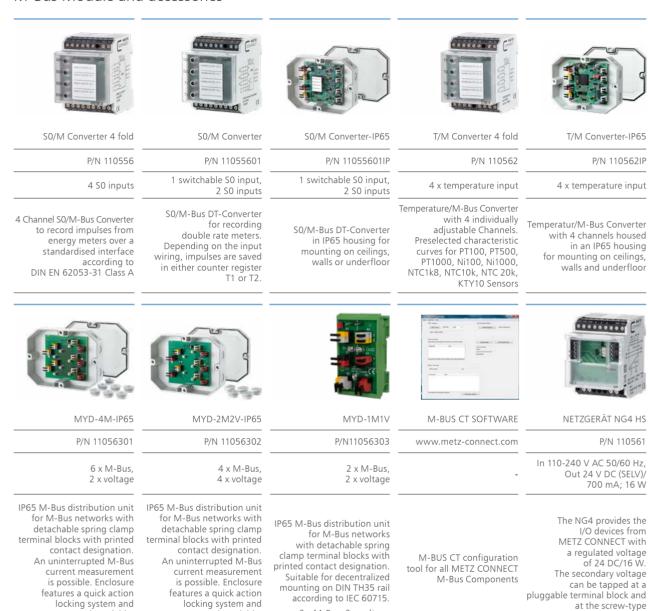




Тур	EWIO <sub>2</sub> -M	EWIO <sub>2</sub> -M-BM	EWIO <sub>2</sub> -MW	EWIO <sub>2</sub> -MW-BM
P/N	110930	110935	110931	110934
Mbus	X	X	X	X
Modbus	-	X	-	X
BACnet	-	X	-	X
WLAN	-		Х	Х

## System and extension components

#### M-Bus Module and accessories



2 x M-Bus, 2 x voltage

terminal block.

#### Communication module

6 x M-Bus, 2 x voltage

is sealable.



is sealable.

4 x M-Bus, 4 x voltage

UMTS/WLAN Antenna with magnetic base communication module Cable length 3m, SMA-Socket

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#### **METZ CONNECT GmbH**

Im Tal 2 78176 Blumberg Germany

Phone +49 7702 533-0 Fax +49 7702 533-189

info@metz-connect.com www.metz-connect.com



#### METZ CONNECT USA Inc.

200 Tornillo Way Tinton Falls, NJ 07712 USA

Phone +1-732-389-1300 Fax +1-732-389-9066

#### METZ CONNECT France SAS

28, Rue Schweighaeuser 67000 Strasbourg France

Phone +33 3886 17073 Fax +33 3886 19473

#### METZ CONNECT Zhongshan Ltd.

Ping Chang Road Ping Pu Industrial Park Sanxiang Town Zhongshan City, 528463 Guangdong Province China

Phone +86 760 86365055 Fax +86 760 86365050

#### METZ CONNECT Asia Pacific Ltd.

Suite 1803, 18/F Chinachem Hollywood Centre, 1 Hollywood Road, Central Hong Kong

Phone +852 26 027 300 Fax +852 27 257 522

