

Data logger – Energy Monitoring made simple





- > Jumper bar enables quick and easy installation of expansion modules
- > Connection of extension/Function modules



- > Push buttons and LED's for manual operation and display



- > Multi I/O with 24 digital and analogue inputs and outputs



- > 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
- > Readout of M-Bus meters (parameterizable readout interval)



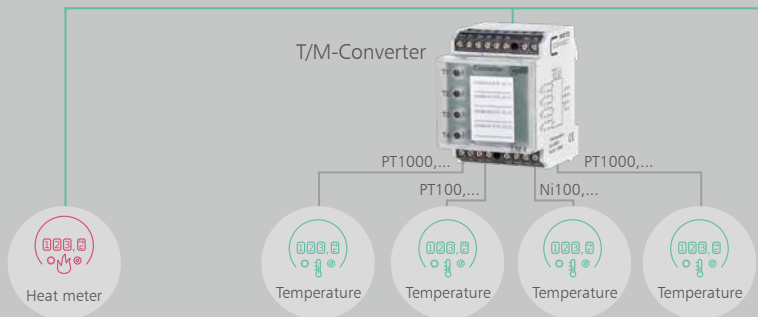
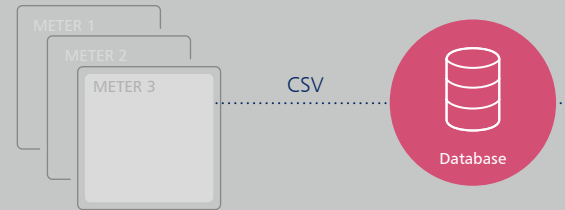
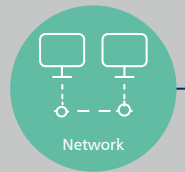
- > 1 x Modbus RTU Interface for 32 Participants



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



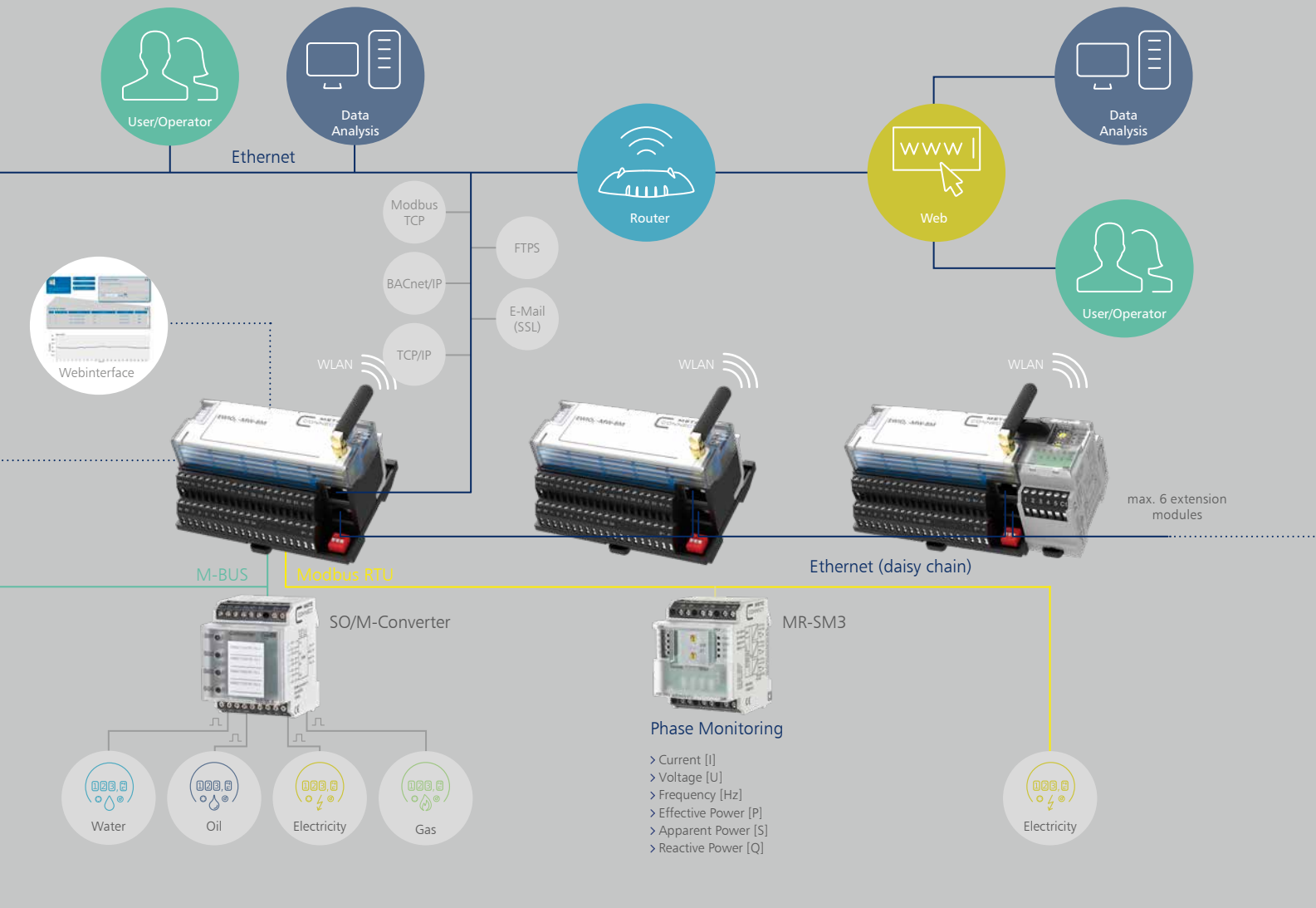
- > 2 x Ethernet ports with Daisy Chain Functionality



The EWIO₂-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. EWIO₂-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 EWIO₂-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





EWIO₂-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 EWIO₂-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 create countless expansion options for the system around the EWIO₂-M.






For industrial and building automation, the system is also available as a pure BACnet/IP or Modbus TCP Ethernet I/O controller with or without WLAN.




* Device mode

				
Typ	EWIO ₂ -M	EWIO ₂ -M-BM	EWIO ₂ -MW	EWIO ₂ -MW-BM
P/N	110930	110935	110931	110934
M-Bus	x	x	x	x
Modbus	-	x	-	x
BACnet	-	x	-	x
WLAN	-	-	x	x





System and extension components

M-Bus Module and accessories

				
S0/M Converter 4 fold P/N 110556	S0/M Converter P/N 11055601	S0/M Converter-IP65 P/N 11055601IP	T/M Converter 4 fold P/N 110562	MYD-4M-IP65 P/N 11056301
4 S0 inputs	1 switchable S0 input, 2 S0 inputs	1 switchable S0 input, 2 S0 inputs	4 x temperature input	6 x M-Bus, 2 x voltage
4 Channel S0/M-Bus Converter to record impulses from energy meters over a standardised interface according to DIN EN 62053-31 Class A	S0/M-Bus DT-Converter for recording double rate meters. Depending on the input wiring, impulses are saved in either counter register T1 or T2.	S0/M-Bus DT-Converter in IP65 housing for mounting on ceilings, walls or underfloor	Temperature/M-Bus Converter with 4 individually adjustable Channels. Preselected characteristic curves for PT100, PT500, PT1000, Ni100, Ni1000, NTC1k8, NTC10k, NTC 20k, KTY10 Sensors	IP65 M-Bus distribution unit for M-Bus networks with detachable spring clamp terminal blocks with printed contact designation. An uninterrupted M-Bus current measurement is possible. Enclosure features a quick action locking system and is sealable. 6 x M-Bus, 2 x voltage

		
M-BUS CT SOFTWARE www.metz-connect.com	POWER SUPPLIER NG4 HS P/N 110561	WLAN antenna P/N 11094830
M-BUS CT configuration tool for all METZ CONNECT M-Bus Components	In 110-240 V AC 50/60 Hz, Out 24 V DC (SELV)/ 700 mA; 16 W The NG4 provides the I/O devices from METZ CONNECT with a regulated voltage of 24 DC/16 W. The secondary voltage can be tapped at a pluggable terminal block and at the screw-type terminal block.	Antenna with magnetic base Cable length 3m, SMA-Socket

Ethernet-I/O-Controller

				
Typ	EWIO ₂	EWIO ₂ -BM	EWIO ₂ -W	EWIO ₂ -W-BM
Art.-Nr.	110905	110904	110906	110909
M-Bus	-	-	-	-
Modbus	-	x	-	x
BACnet	-	x	-	x
WLAN	-	-	x	x

I/O Expansion modules

				
MR-DI4	MR-DI10	MR-SI4	MR-AI8	MR-CI4
P/N 1108341319	P/N 1108311319	P/N 11083913	P/N 11083213	P/N 1108401332
4 digital inputs	10 digital inputs	4 S0 inputs	8 configurable temperature or voltage inputs	4 current inputs 0-20 mA, 4 voltage inputs 0-10 V
				
MR-DO4	MR-DOA4	MR-TO4	MR-AOP4	MR-AO4
P/N 1108361321	P/N 110836132101	P/N 11083013	P/N 1108371302	P/N 1108351302
4 relay outputs, manual control facility	4 relay outputs	4 triac output, manual control facility	4 voltage outputs 0-10 V, manual control facility	4 voltage outputs 0-10 V
				
MR-MULTI I/O	MR-DIO4/2	MR-DIO4/2S	MR-TP	MR-SM3
P/N 11084313	P/N 1108331326	P/N 110833132601	P/N 11083813	P/N 11084113
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	4 digital inputs, 2 relay outputs, changeover contacts, manual control facility	4 digital inputs, 2 relay outputs, NO contacts, manual control facility	6 digital inputs, 2 x two-level relay outputs, manual control facility	3 analog inputs (230 V) For captured by three 230 Volt current circuits Current, voltage and power can be measured and determined
				
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				

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