

## External transparent modem for universal meter connection

A compact and cost-effective modem for connecting meters, sensors into the AMI and Smart Grid infrastructure.

Our cellular modem has been designed specifically for the automatic readout of meters. It can be installed as a universal external modem and can be connected to any meter type.



With this device you can connect any kinds of meters, industrial measurement systems, sensors with a central server by creating a transparent data link between them and the HES. The device can be ordered with various cellular module types.

Read consumption data from utility meters, sensors with a single modem! You can save money by using our modem, because there is no need further for manual readout of the meter systems, measurement environments.

The modem is equipped with several interfaces to connect multiple industrial equipment through the RS232 / RS485 port, CL (current loop), DI (2 digital inputs) interface.

Our device is suitable for remote readout of registers, consumption data of connected meters. The modem is fully configurable by our WM-E Term<sup>®</sup> software.

### MAIN FEATURES

- Cellular module order options:
  - LTE Cat.1 / 450MHz module 2G „fallback” feature
  - LTE Cat.M / Cat.NB / 450MHz with 2G „fallback” feature
- AC/DC power input
- Physical interfaces:
  - RJ45: RS232 and RS485 (2 or 4-wire)
  - Terminal block: CL (current loop) / DI (2 digital inputs)
- Compatible with any meter, transparent communication
- Surge protection option (up to 4kV)
- Tamper switch for detecting the cover open (order option)
- Supercapacitor option (for power outage LastGASP notification)
- Remote & safe firmware updates
- Configuration: WM-E Term software; optionally by Device Manager (order option)
- Enclosure/Casing: IP52 plastic (according to DIN 43861 part 2)

### APPLICATION

- UTILITY COMPANIES
- SMART METERING
- INDUSTRIAL MEASUREMENT



## DESIGN AND OUTFIT

- IP52 plastic enclosure, removable port cover
- RJ45 connector: RS232 and RS485 (2 or 4-wire) connection
- Terminal block: CL (current loop - IEC1107, Mode C) / DI (2pcs logical inputs)
- AC power input: ~85..300VAC, 50-60Hz ±5% / DC: 120..385VDC
- External antenna connector (FAKRA / SMA, 50 Ohm) - by order

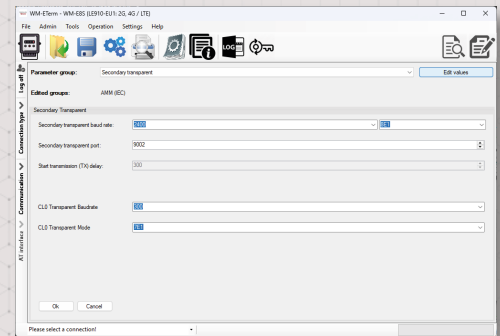
## COMPATIBILITY & OPERATION

- Universal external modem, compatible with any meter type
- Transparent communication
- Immediate alarm notification option (power loss, input changes)



## ACCESSORIES

- RJ45 connection cable (RS232, RS485) - order option
- RS232-USB adapter for configuration (order option)
- FAKRA or SMA antenna (50 Ohm) - by order
- WM-E Term<sup>®</sup> configuration software (mass firmware update, actualization of settings)
- You can manage the device by Device Manager<sup>®</sup> software (order option)



WM-E8S <sup>®</sup>		LTE Cat.1	LTE Cat.M / Cat.NB
<b>Power Voltage / Nominal Frequency</b>		~85..300VAC, 50-60Hz ±5% / 120..385VDC	
<b>Power</b>	Current	Stand-by: 10-12mA @ 230VAC · Average: 26-28mA @ 230VAC · Max: 35-44mA @ 230VAC	
	Consumption	Stand-by: 1.15 - 1.7W @ 230VAC (2.3 - 2.4VA) · Average: 3.0 - 3.6W @ 230VAC (6.0 - 7.2VA) · Max: 4.4 - 5W @ 230VAC (8.8 - 10VA)	
<b>Communication module</b>	Mobile Standards	LTE Cat.1 / 450MHz - 2G "fallback"	
	Modem type	SIMCom A7676E	
	Bands / Frequency (MHz)	LTE: B1(2100) / B3(1800) / B8(900) / B20(800) / B31(450) / B72(450) GSM/GPRS/EDGE: B3(1800) / B8(900)	
	Speed (UL/DL)	LTE (UL/DL): 5/0 Mbps GSM/GPRS/EDGE (UL/DL): 236.8/236.8 kbps	
	SIM card slot	mini SIM card (2FF type)	
	Antenna connector	External LTE antenna connector (FAKRA or SMA, 50 Ohm) - antenna connector type by order	
<b>Compatibility</b>	Meter type	Universal meter connection	
<b>Interfaces</b>	RJ45 connector	RS232 and RS485 port (2-wire/4-wire)	
	Terminal block	CL (current loop (CL0), 2-wire, IEC1107 Mode C) · DI (2 logical inputs, dry contacts, 3-wire)	
	Switch	Tamper switch for detecting the cover open (order option)	
<b>Operation</b>	Protocol / Transmitting	Transparent communication	
	Notification	Immediate alarm notification (LastGASP - power loss) - order option · Notification of input status changes	
	Configuration	WM-E Term <sup>®</sup> tool (local/remote single or mass parameter configuration, firmware update) Device Manager software (remote configuration, firmware updates) - order option	
	Supercapacitor	Presented to provide immediate notification in case of power outages (order option)	
	Indication	6 status LEDs	
<b>EMC compatibility</b>	RTC Backup Battery	Power outage <= 1 hour (optional)	
<b>Environment</b>	Surge withstand	4kV (peak) 12/50µs	
<b>Construction</b>	Operating / Storage	-30°C to +70°C at 5-95% rel.humidity, non-condensing · -40°C to +80°C at 95% rel.humidity, non-condensing	
	Enclosure	IP52 plastic enclosure (according to DIN 43861 part 2) with 3-point mounting option and transparent terminal block cover (protect the ports)	
	Dimension / Weight	175 x 104 x 60 mm / 380gr	



The presented images on the datasheet are for illustration purposes only. The details on the data sheet are for general information purposes only. WM Systems LLC cannot be held liable for erroneous information on the datasheet. The announced information are subject to change without notice. For more details, please contact us.