WM-E1SI

LTE Cat.4 cellular modem for Itron® electricity meters

This cellular modem has been specific designed for use with specific Itron® electricity meters.
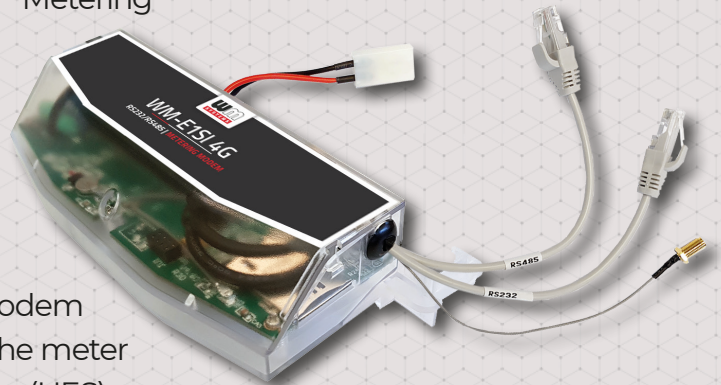
The modem have RS232 and RS485 connection capabilities, and provides transparent data link to the HES, through the 2G / 3G / 4G LTE wireless network.

Our modem forms part of the AMI (Advanced Metering Infrastructure) of the utility company.

The modem is suitable for remote readout of electricity meter registers and modification of configuration.

The readeout takes place in „PULL" mode, the modem provides transparent communication between the meter and the electricity provider's measurement center (HES).

The modem can be installed under the terminal cover of the meter sealed by the service provider. The modem can be configured using the WM-E Term® application.

MAIN FEATURES

• LTE Cat.4 / 3G / 2G module
• It can be installed into the meter enclosure and fastened securely
• Design & connectivity satisfy meter manufacturer standards
• Sealed and separated from the meter
• Power supply from the meter (AC power)
• Compatible with Itron® SL7000 , EM600 (E620), ACE6000, ACE8000 electricity meters
• RS232 connection (RJ45)
• RS485 connection (RJ45)
• Optional surge protection from 4kV up to 12kV
• „Pull" mode
• Transparent data sending (IEC 62056-21 protocol)
• It can also be operated from a private network with NAT, the modem connects to the HES (Head End System)
• Supercapacitor option (LastGASP message from power outage)
• Remote & safe firmware updates
• WM-E Term® configuration software (mass modem configuration and firmare updates)
• Device Manager® software (order option)

APPLICATION

• UTILITY COMPANIES
• SMART METERING
• INDUSTRIAL MEASUREMENT

WM-E1SI

DESIGN AND OUTFIT

- The modem is installable inside the meter enclosure
- RS232 and RS485 interface connections (RJ45)
- AC power from the meter
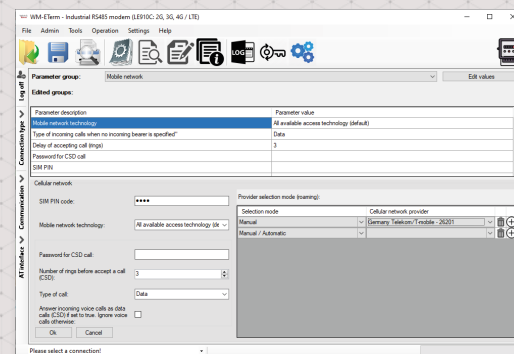- SMA / FME antenna cable

COMPATIBILITY

- Itron® SL7000, EM600 (E620), ACE6000 and ACE8000 electricity meters

OPERATION

- „Pull" data sending
- Transparent data transmission

ACCESSORIES

- RJ45 cable (for connecting Itron® meters) - order option
- Converter cable (for connecting the Landis+Gyr® meters) - order option
- External SMA or FME antenna (50 Ohm) - order option
- WM-E Term® software (mass FW updates, actualization of settings)
- You can manage the device by Device Manager® software

WM-E1SI®		LTE Cat.4	
Power Voltage / Nominal Frequency		• ~100-230V AC +15%/-15% , 50-60Hz +/- 5% (AC power supplied by the meter) / Optional DC power (order option) can be connected: Input Voltage: 8…28V DC	
Power Consumption / Current		• Average: 2.9W, 230VAC • Stand-by: 24mA 100V, 12mA 230V / Average: 30mA 100V, 15mA 230V / Max: 0.15A @ 230V / DC: Input Power: max 5W (peak)	
Communication module	Cellular technology	• LTE Cat.4 / 3G / 2G	
	Internet module	• SIMCom A7602E-H	• SIMCom A7608SA-H
	Bands / Frequency (MHz)	• LTE-FDD: B1(2100) / B3(1800) / B5(850) / B7(2600) / B8(900) / B20(800) • LTE-TDD: B38(2600) / B40(2300) / B41(2500) • UMTS / HPSA+: 3G: B1(2100) / B8(900) • GSM/GPRS/EDGE: B8(900) / B3(1800)	• LTE-FDD: B1(2100) / B2(1900) / B3(1800) / B4(1700) / B5(850) / B7(2600) / B8(900) / B20(800) / B28(700) / B66(1700) • LTE-TDD: B38(2600) / B40(2300) / B41(2500) • UMTS / HPSA+: 3G: B1(2100) / B2(1900) / B5(850) / B8(900) • GSM/GPRS/EDGE: B5(800) / B8(900) / B3(1800) / B2(1900)
	Speed (DL/UL)	• LTE Cat.4 release 9 compilant: 150/50 Mbps • HSPA+ Cat.20/Cat.6: 42/5.7 Mbps • UMTS: 384/384 kbps • EDGE: 236/236 kbps • GPRS: 85.6/85.6 kbps	• LTE Cat.4 release 9 compilant: 150/50 Mbps • HSPA+ Cat.20/Cat.6: 42/5.7 Mbps • UMTS: 384/384 kbps • EDGE: 236/236 kbps • GPRS: 85.6/85.6 kbps
	SIM card slot	• mini SIM card (2FF type, push-insert SIM)	
	Antenna connector	• External antenna connector (SMA, 50 Ohm)	
Compatibility	Meter type	• Itron® SL7000, EM600 (E620), ACE6000, ACE8000 electricity meters	
Interfaces	Connectors (order options)	• RS232 connector (RJ45) • RS485 connector (RJ45) • Power supplied by meter (AC power, pigtail connector or ferrule connector / 2-pins)	
Operation	Protocol / Transmitting	• EN 62056-21, Mode C - 300-115200 baud serial data speed • „Pull", transparent data sending	
	Notification	• Immediate alarm notification (LastGASP - power loss)	
	Configuration	• WM-E Term® tool (local/remote single or mass parameter configuration, firmware update) • Device Manager software (order option)	
	Indication	• 3 status LEDs	
	RTC Backup Battery*	• Power outage < =1 hour • After 1 hour the RTC will be supplied from the meter	
	Supercapacitor	• Supercapacitor (for Last GASP SMS notification from power outages) - order option	
EMC compatibility	Surge withstand	• 4kV (peak), 1,2/50µs, line to line 2Ω • 6kV (peak), 1,2/50µs, line to earth (ground) 2Ω • 12kV, Rsource = 40Ω (1,2/50µs, Impulse 1 min) • Dielectric test: 4kV, 1 min, 50Hz	
Construction	Temperature	• Operating: from -40'C to +70'C at 95% rel.humidity • Storage: from -40'C to +80'C at 95% rel.humidity	
	Enclosure	• IP51 plastic transparent casing, mountable into the meter enclosure	
	Dimension / Weight	• 162 x 66 x 30mm (without antenna and cables) • 130gr	

CE

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