

WMB-868 WIRELESS M-BUS BRIDGE

PRELIMINARY DATASHEET

The Wireless M-Bus Bridge WMB-868 enables remote reading of water, gas or heat meters on the basis of wireless communication. An integrated M-Bus interface permits direct connection to Echelon IEC Electricity Meters¹ and fully integration into the Networked Energy Services (NES)² infrastructure.

FEATURES

- Equipped with a sophisticated 868.95 MHz ISM radio band receiver
- Integrated M-Bus interface permits direct connection to Echelon IEC Electricity Meters and fully integration into the NES infrastructure
- Automatically discovers up to 128 wireless meters that are within RF reception range
- Sophisticated alarm management generates M-Bus alarm messages if newly discovered meters have been detected or if the radio connection to already discovered meters has been lost
- Supports on demand billing reads of discovered meters
- Supports Auto-registration of discovered meters
- Emulates a wired M-Bus connection to registered meters
- Fully supports M-Bus Auto-discovery mode of Echelon IEC Electricity Meters and permits assigning of a dedicated primary address to each registered meter
- Supports automatic billing reads of registered meters
- Fully supports the M-Bus implementation of Echelon IEC Electricity meters
- Simple Plug and Play installation
- Supports encrypted and non-encrypted M-Bus data messages
- Supports firmware updates via the NES infrastructure
- LED indicators provide information about M-Bus activity, RF activity and proper start up
- M-Bus interface complies with EN 13757-2, EN 13757-3
- Wireless communication complies with EN 13757-4, reception mode T1
- Powered from M-Bus, no additional power supplies are required
- CE (!) R&TTE Approval

¹ Echelon IEC Electricity Meters are products of Echelon Corporation

² NES is a trademark of Echelon Corporation

ORDERING INFORMATION

Product	WMB-868 WIRELESS M-BUS BRIDGE
Model number	70010-010204EM Emulates 4 M-Bus devices

SPECIFICATIONS

M-Bus Interface Specifications

Wired M-Bus	Mains protected Complies with EN 13757-2 [2005] and EN 13757-3 [2005]
Power supply	Powered from M-Bus current consumption limited to 30 mA, corresponds to 20 UL

Radio Interface Specifications

Radio communication	Complies with EN 13757-4 [2005]
Antenna	Internal ceramic multi layer substrate chip antenna with 1.5dBi gain Optional external antenna available
Reception	868.95 MHz, Class 3 receiver
Chip rate	100 kcps
Operation mode	T1 as specified in EN 13757-4
RF coverage	Range of radio reception depends on environment up to 400 m outdoors, up to 30 m indoors

Mechanical Specifications

Enclosure	Insulating sealable enclosure of protection class II Complies with DIN 43861-2, IP 52
Dimensions	105 x 180 x 50
Fixing triangle	125 x 83 mm according to DIN 43857-5
Mounting	Mountable on terminal covers according to DIN 43857-5 and 35 mm DIN rails
M-Bus wiring terminals	Up to 1 x 1,5 mm ²

Environmental Specifications

Temperature range	-25 °C to +70 °C operating temperature range -40 °C to +70 °C limit for storage and transport
Humidity	≤ 90% relative humidity, non condensing
Approvals	CE (!) R&TTE
Certifications	Complies with ETSI EN 301 489-1 V1.6.1, ETSI EN 301 489-3 V1.4.1 ETSI EN 300 220-1 V2.1.1, ETSI EN 300 220-3 V1.1.1 EN 62052-21 (5, 6, 7.2, 7.3, 7.6, 7.7)