

## INKNXMEB\*\*\*0000 MBUS to KNX gateway

### Order Codes:

INKNXMEB0100000 (10 M-Bus devices, 250 KNX objects)  
 INKNXMEB0200000 (20 M-Bus devices, 500 KNX objects)  
 INKNXMEB0600000 (60 M-Bus devices, 1500 KNX objects)  
 INKNXMEB1200000 (120 M-Bus devices, 3000 KNX objects)



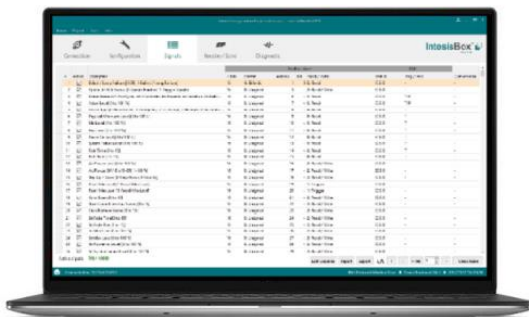
## HOW IT WORKS

The Intesis **INKNXMEB\*\*\*0000** Gateway has been specially designed to work as a translator between an M-BUS installation and a KNX home automation system.

Intesis acts as a master in the M-BUS line, retrieving data from all configured meters and exposing them to the KNX TP-1 line in the shape of standardized KNX objects.

Intesis connects directly to both the KNX TP-1 installation, and to the M-BUS M+/M- line (no M-BUS level converter required).

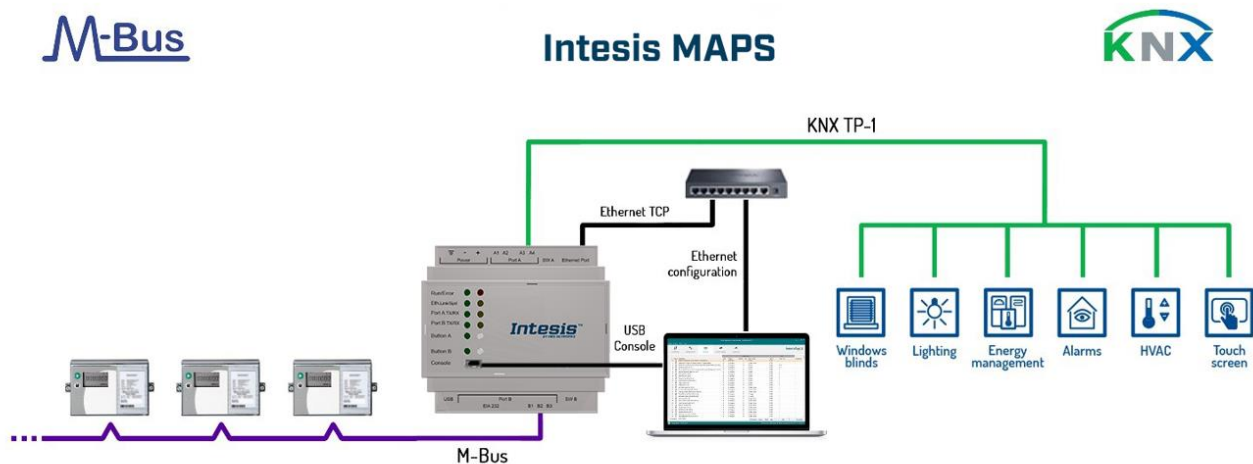
Configuration project is done through Intesis MAPS.



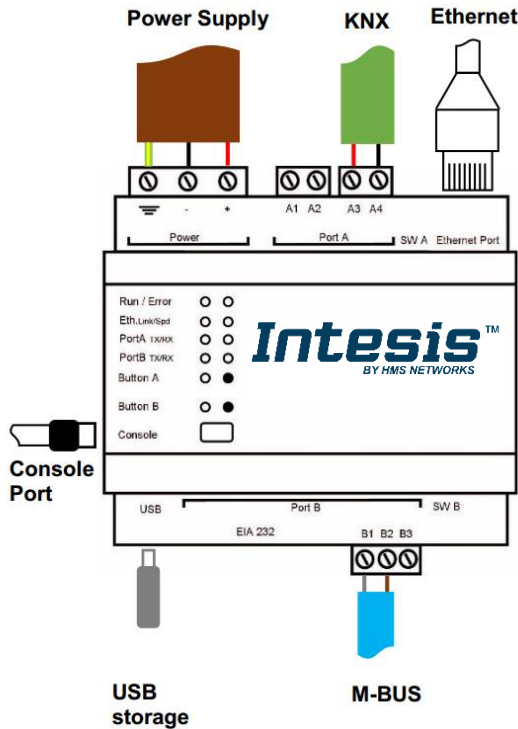
## FEATURES

- Handles conversion between KNX and M-BUS meters (number of supported meters depends on Intesis version)
- Support up to thousands of KNX objects, each to be associated with a register read from an M-BUS meter
- M-BUS line scan (meter detection) and register discovery functionality, to ease configuration process
- Configuration through IP or USB (Console) port
- Datalogging through external USB port
- Front cover LED indicators to provide easy to check communication status on both the Ethernet and serial ports
- Includes Intesis MAPS with automatic updates for both Intesis MAPS and Gateway's firmware

## INTEGRATION EXAMPLE



## CONNECTIONS



## PROTOCOLS

### M-Bus

The M-Bus ("Meter-Bus") is a new European standard for remote reading of heatmeters and it is also usable for all other types of consumption meters as well as for various sensors.

M-BUS is based on a two-wire physical layer, using bus topology, where each meter will have an own address for communication with a central gateway.

Key aspects of M-BUS communication standard include large number of available devices in the market, possibility of network expansion and robustness of its physical layer.

For further information, please visit [www.m-bus.com](http://www.m-bus.com)



KNX is the world's only open Standard for the control in both commercial and residential buildings.

This standard is based upon more than 20 years of experience in the market. Bus devices can either be sensors or actuators needed for the control of building management equipment such as: lighting, blinds/shutters, security systems, energy management, heating, ventilation and air-conditioning systems, signaling and monitoring systems, interfaces to service and building control systems, remote control, metering, audio/video control, white goods, etc.

For further information, please visit [www.knx.org](http://www.knx.org)

## COMMUNICATION

	KNX	M-BUS
<b>Connection</b>	TP-1 +/-	M+/M-
<b>Data rate</b>	9.6 kbps	0.3, 0.6, 1.2, 2.4, 9.6 kbps
<b>Data Types</b>	DPT_1.x (1 bit) DPT_5.x (1 byte unsigned) DPT_6.x (1 byte signed) DPT_7.x (2 byte unsigned) DPT_8.x (2 byte signed) DPT_9.x (2 byte float) – <i>recommended</i> DPT_12.x (4 byte unsigned) – <i>recommended</i> DPT_13.x (4 byte signed) – <i>recommended</i> DPT_14.x (4 byte float) – <i>recommended</i> DPT_20.x (1 byte unsigned)	Secondary and primary addressing supported  Supports all VIF/VIFE defined in the M-BUS standard
<b>Functions supported</b>		

## ELECTRICAL & MECHANICAL FEATURES

<b>Enclosure</b>	Plastic, type PC (UL 94 V-0) Net dimensions (dxwxh): 90x88x56 mm Recommended space for installation (dxwxh): 130x100x100mm Color: Light Grey. RAL 7035
<b>Mounting</b>	Wall. DIN rail EN60715 TH35.
<b>Terminal Wiring (for power supply and low-voltage signals)</b>	Per terminal: solid wires or stranded wires (twisted or with ferrule) 1 core: 0.5mm <sup>2</sup> ... 2.5mm <sup>2</sup> 2 cores: 0.5mm <sup>2</sup> ... 1.5mm <sup>2</sup> 3 cores: not permitted If cables are more than 3.05 meters long, Class 2 cable is required.
<b>Power</b>	1 x Plug-in screw terminal block (3 poles) Positive, Negative, Earth 24VDC
<b>Ethernet</b>	1 x Ethernet 10/100 Mbps RJ45 2 x Ethernet LED: port link and activity
<b>Port A</b>	1 x KNX TP-1 Plug-in screw terminal block orange (2 poles) 2500VDC isolation from other ports KNX power consumption: 5mA Voltage rating: 29VDC 1 x Plug-in screw terminal block green (2 poles) Reserved for future use 1500VDC isolation from other ports
<b>Switch A (SWA)</b>	1 x DIP-Switch for PORT A configuration: Reserved for future use
<b>PORT B</b>	1 x Serial EIA232 (SUB-D9 male connector) Reserved for future use 1 x M-BUS Plug-in screw terminal block (3 poles) MBUS power consumption: 210mA Voltage rating: 36VDC (except PORT B: EIA232)
<b>Switch B (SWB)</b>	1 x DIP-Switch for PORT B configuration: Reserved for future use

<b>Battery</b>	Size: Coin 20mm x 3.2mm Capacity: 3V / 225mAh Type: Manganese Dioxide Lithium
<b>Console Port</b>	Mini Type-B USB 2.0 compliant 1500VDC isolation
<b>USB port</b>	Type-A USB 2.0 compliant Only for USB flash storage device (USB pen drive) Power consumption limited to 150mA (HDD connection not allowed)
<b>Push Button</b>	Button A: Programming button (not used) Button B: Not used
<b>Operation Temperature</b>	0°C to +60°C
<b>Operational Humidity</b>	5 to 95%, no condensation
<b>Protection</b>	IP20 (IEC60529)
<b>LED Indicators</b>	10 x Onboard LED indicators 2 x Run (Power)/Error 2 x Ethernet Link/Speed 2 x Port A TX/RX 2 x Port B TX/RX 1 x Button A indicator 1 x Button B indicator

