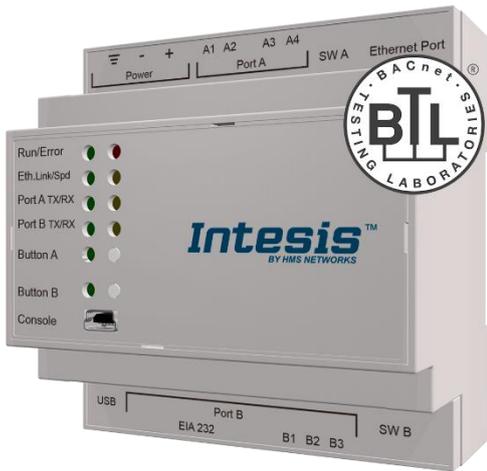


## INKNXBAC\*\*\*0000 BACnet to KNX gateway

Installation Sheet rev.1.0

### Order Codes:

- INKNXBAC1000000 (100 points)
- INKNXBAC2500000 (250 points)
- INKNXBAC6000000 (600 points)
- INKNXBAC1K20000 (1200 points)
- INKNXBAC3K00000 (3000 points)



## HOW IT WORKS

The Intesis **INKNXBAC\*\*\*0000** Gateway has been specially designed to work as a translator between BACnet IP or BACnet MSTP devices and a KNX installation.

Intesis acts as a client in the BACnet side, allowing KNX devices to read and write on all configured BACnet Objects from external devices, according to each configuration project.

KNX bus is connected to the specific KNX TP-1 port of the gateway. On the BACnet side, the gateway simulates a BACnet IP client or BACnet master MSTP device.

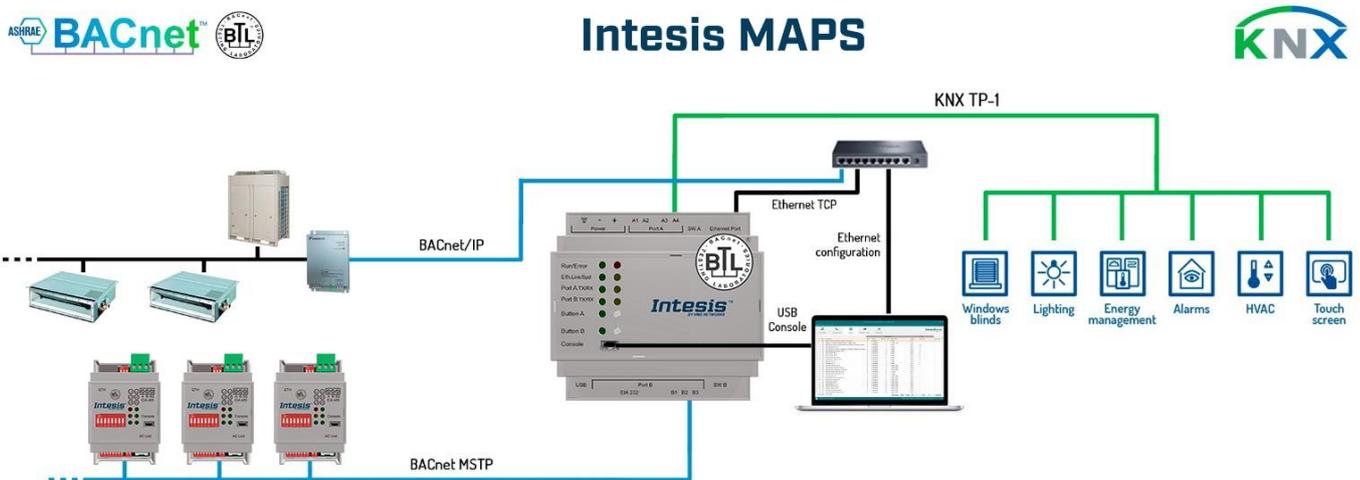
Configuration project is done through Intesis MAPS.



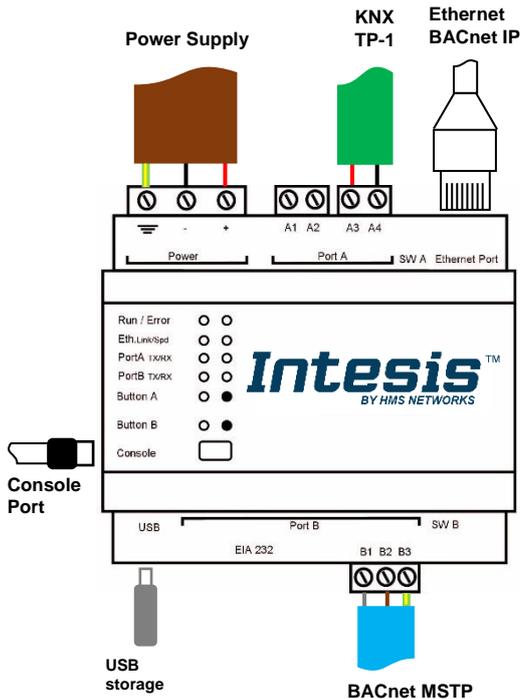
## FEATURES

- Handles conversion between KNX TP-1 and BACnet (IP or MSTP)
- BACnet BTL certified
- Datalogging through external USB port
- Configuration through IP or USB (Console) port
- Plastic housing that mounts on 35-mm DIN-rail
- 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
- BACnet explorer functionality, to detect available BACnet Devices and Objects to integrate (available from Intesis MAPS)

## INTEGRATION EXAMPLE



## CONNECTIONS



## PROTOCOLS



BACnet is the Data Communication Protocol for Building Automation and Control Networks. Developed under the auspices of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

BACnet is an American national standard, a European standard, a national standard in more than 30 countries, and an ISO global standard. The protocol is supported and maintained by ASHRAE Standing Standard Project Committee 135.

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



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  | BACnet  |                        |
|--|--|---|------------------------|
|  |  | MSTP  | IP                     |
| <b>Connection</b>                                    | TP-1   | EIA485<br>(3 wire isolated)   | 10BASE-T<br>100BASE-TX |
| <b>Date rate</b>                                     | 9.6 kbps   | 9.6, 19.2, 38.4,<br>57.6, 76.8, 115.2 kbps  | 10 Mbps<br>100 Mbps    |
| <b>Data Types</b><br>&<br><b>Functions supported</b> | DPT_1.x (1 bit)<br>DPT_5.x (1 byte unsigned)<br>DPT_6.x (1 byte signed)<br>DPT_7.x (2 byte unsigned)<br>DPT_8.x (2 byte signed)<br>DPT_9.x (2 byte float)<br>DPT_12.x (4 byte unsigned)<br>DPT_13.x (4 byte signed)<br>DPT_14.x (4 byte float)<br>DPT_20.x (1 byte unsigned) | 0-AO (Analog Output)<br>1-AI (Analog Input)<br>2-AV (Analog Value)<br>3-BO (Binary Output)<br>4-BI (Binary Input)<br>5-BV (Binary Value)<br>12-LOOP<br>13-MI (Multistate Input)<br>14-MO (Multistate Output)<br>15-MV (Multistate Value)<br>23-ACUM (Accumulator) |                        |

## ELECTRICAL & MECHANICAL FEATURES

|  |  |
|--|--|
| <b>Enclosure</b>   | Plastic, type PC (UL 94 V-0)<br>Net dimensions (dxwxh): 90x88x56 mm<br>Recommended space for installation (dxwxh): 130x100x100mm<br>Color: Light Grey. RAL 7035  |
| <b>Mounting</b>  | Wall.<br>DIN rail EN60715 TH35.  |
| <b>Terminal Wiring</b><br>(for power supply and low-voltage signals) | Per terminal: solid wires or stranded wires (twisted or with ferrule)<br>1 core: 0.5mm <sup>2</sup> ... 2.5mm <sup>2</sup><br>2 cores: 0.5mm <sup>2</sup> ... 1.5mm <sup>2</sup><br>3 cores: not permitted<br>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)<br>9 to 36VDC +/-10%, Max.: 140mA.<br>24VAC +/-10% 50-60Hz, Max.: 127mA<br>Recommended: 24VDC   |
| <b>Ethernet</b>  | 1 x Ethernet 10/100 Mbps RJ45<br>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)<br>2500VDC isolation from other ports<br>KNX power consumption: 5mA<br>Voltage rating: 29VDC<br>1 x Plug-in screw terminal block green (2 poles)<br>Reserved for future use<br>1500VDC isolation from other ports       |
| <b>Switch A</b><br>(SWA)   | 1 x DIP-Switch for PORT A configuration:<br>Reserved for future use  |
| <b>PORT B</b>  | 1 x Serial EIA232 (SUB-D9 male connector)<br>Reserved for future use<br>1 x Serial EIA485 Plug-in screw terminal block (3 poles)<br>A, B, SG (Reference ground or shield)<br>1500VDC isolation from other ports<br>(except PORT B: EIA232)   |
| <b>Switch B</b><br>(SWB)   | 1 x DIP-Switch for serial EIA485 configuration:<br>Position 1:<br>ON: 120 Ω termination active<br>Off: 120 Ω termination inactive (default)<br>Position 2-3:<br>ON: Polarization active (default)<br>Off: Polarization inactive  |

|                              |   |
|------------------------------|---|
| <b>Battery</b>               | Size: Coin 20mm x 3.2mm<br>Capacity: 3V / 225mAh<br>Type: Manganese Dioxide Lithium   |
| <b>Console Port</b>          | Mini Type-B USB 2.0 compliant<br>1500VDC isolation  |
| <b>USB port</b>              | Type-A USB 2.0 compliant<br>Only for USB flash storage device<br>(USB pen drive)<br>Power consumption limited to 150mA<br>(HDD connection not allowed)                      |
| <b>Push Button</b>           | Button A: KNX programming button (not used)<br>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<br>2 x Run (Power)/Error<br>2 x Ethernet Link/Speed<br>2 x Port A TX/RX<br>2 x Port B TX/RX<br>1 x Button A indicator<br>1 x Button B indicator |

