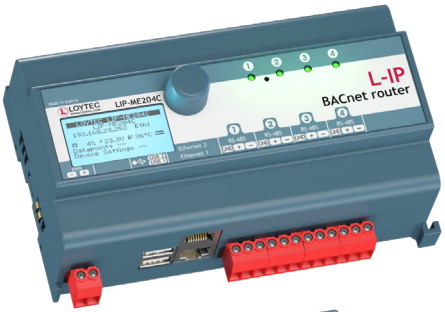
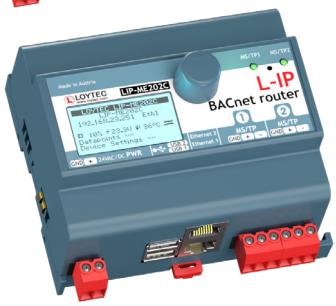
BACnet/IP Router

LIP-ME201C, LIP-ME202C, LIP-ME204C

✓ BACnet
CEA-709
KNX
Modbus
M-Bus
✓ OPC

Datasheet #89015521





The LIP-ME201C, LIP-ME202C, and LIP-ME204C BACnet/IP Routers connect BACnet MS/TP channels to a BACnet/IP network. The BACnet routers are compliant with the standards ASHRAE 135-2012 and ISO 16484-5:2012. The routers can be configured to act as a BACnet Broadcast Management Device (BBMD). The L-IP BACnet/IP Routers also provide Foreign Device support.

The BACnet router can act as a BACnet Time Master and as a BACnet MS/TP Slave Proxy. Extended features like the optional write protection of the BDT, a BACnet/IP Access Control List (ACL), and a simple communications test for BBMD help to locate issues on the network. The BACnet router also features remote MS/TP data packet capturing. BACnet MS/TP data packets are captured by the device and can be analyzed using Wireshark (free Protocol Analyzer, www.wireshark.org). Wireshark can either connect to the L-IP online or the capture file is loaded from the L-IPs web server and analyzed offline in Wireshark.

The complete device configuration of the BACnet router is done via the built-in web server, optionally also secured via HTTPS protocol. All system registers are available as OPC XML-DA and OPC UA data points.

The BACnet router is BTL certified as BACnet Building Controllers (B-BC).

Each L-IP BACnet/IP Router is equipped with two Ethernet ports. It can either be configured to use the internal switch to interconnect the two ports or every port is configured to work in a separate IP network.

When the Ethernet ports are configured for two separate IP networks, one port can be connected for instance to a WAN (Wide Area Network) with enabled network security (HTTPS) while the second port can be configured to be connected to an insecure network (LAN) where the standard building automation protocols like BACnet/IP, LON/IP, or Modbus TCP are present. These devices also feature firewall functionality of course to isolate particular protocols or services between the ports. The built-in VPN function provides for simple VPN setup and secure access to remote sites. The LTE-800 interface enables wireless access to remote sites through a mobile carrier.

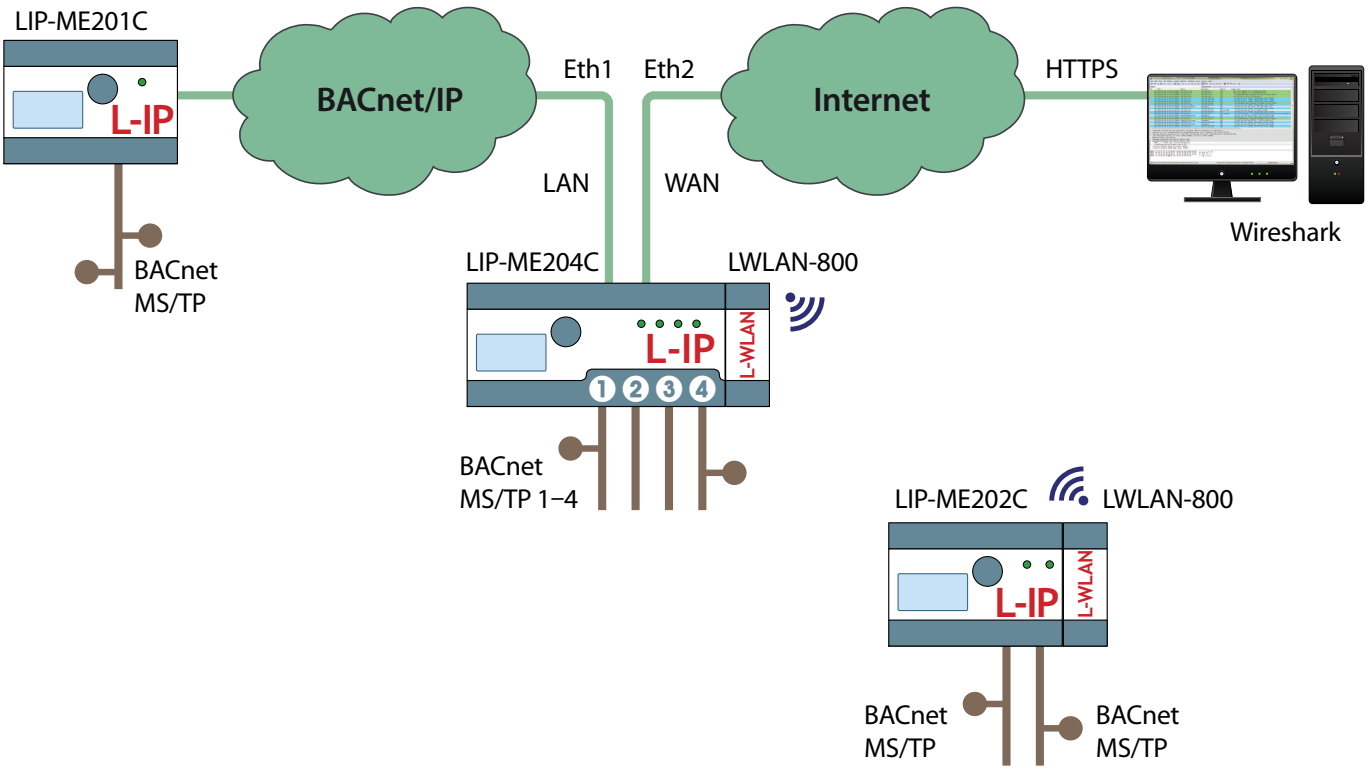
Using the internal switch, a daisy chained line topology of up to 20 devices can be built, which reduces costs for network installation. The IP switch also allows the setup of a redundant Ethernet installation (ring topology), which increases reliability. The redundant Ethernet topology is enabled by the Rapid Spanning Tree Protocol (RSTP), which is supported by most managed switches.

Features

- Routes packets between BACnet MS/TP and BACnet/IP
- Compliant with ANSI/ASHRAE 135-2012 and ISO 16484-5:2012 standard
- BBMD (BACnet Broadcast Management Device)
- Foreign device support
- Slave Proxy for up to 32 MS/TP slave devices
- Configuration via built-in web server
- Built-in OPC XML-DA and OPC UA server
- Dual Ethernet/IP interface
- Access to network statistics via web browser
- BACnet MS/TP diagnostic LED
- BACnet MS/TP diagnostic via web interface
- MS/TP remote data packet capture (Wireshark)
- Ethernet link and activity LED
- Secure web interface via HTTPS
- 128x64 graphic display with backlight
- Local display of device information
- Manual operation using the jog dial or VNC client
- Supports WLAN through LWLAN-800 Interface
- Supports LTE through LTE-800 Interface
- Stores user-defined project documentation
- Supports VPN for BACnet/IP

LIP-ME201C, LIP-ME202C, LIP-ME204C

Specifications			
Type	**LIP-ME201C**	**LIP-ME202C**	**LIP-ME204C**
Dimensions (mm)	107 x 100 x 75 (L x W x H), DIM046		159 x 100 x 75 (L x W x H), DIM054
Installation	DIN rail mounting following DIN 43880, top hat rail EN 50022		
Purpose of control	Operating control		
Construction of control	Independently mounted control		
Feature of automatic action	Type 1		
Operating conditions	0 °C to 50 °C, 10 – 90 % RH, noncondensing, degree of protection: IP40, IP20 (terminals), pollution degree 2		
Power supply	24 V DC/ V AC SELV ±10 %, typ. 2.5 W		
Rated Impulse Voltage	330 V		
Interfaces	2 x Ethernet (100Base-T): BACnet/IP, OPC XML-DA (server), OPC UA (server), HTTP, FTP, SSH, HTTPS, Firewall, NTP, VNC, SNMP 2 x USB-A: WLAN (needs LWLAN-800), LTE (needs LTE-800)		
	1 x BACnet MS/TP	2 x BACnet MS/TP	4 x BACnet MS/TP
Tools	Configuration via web browser or locally via graphic display and jog dial		
UL Certification	c UL us	c UL us	c UL us LISTED



BACnet/IP Router

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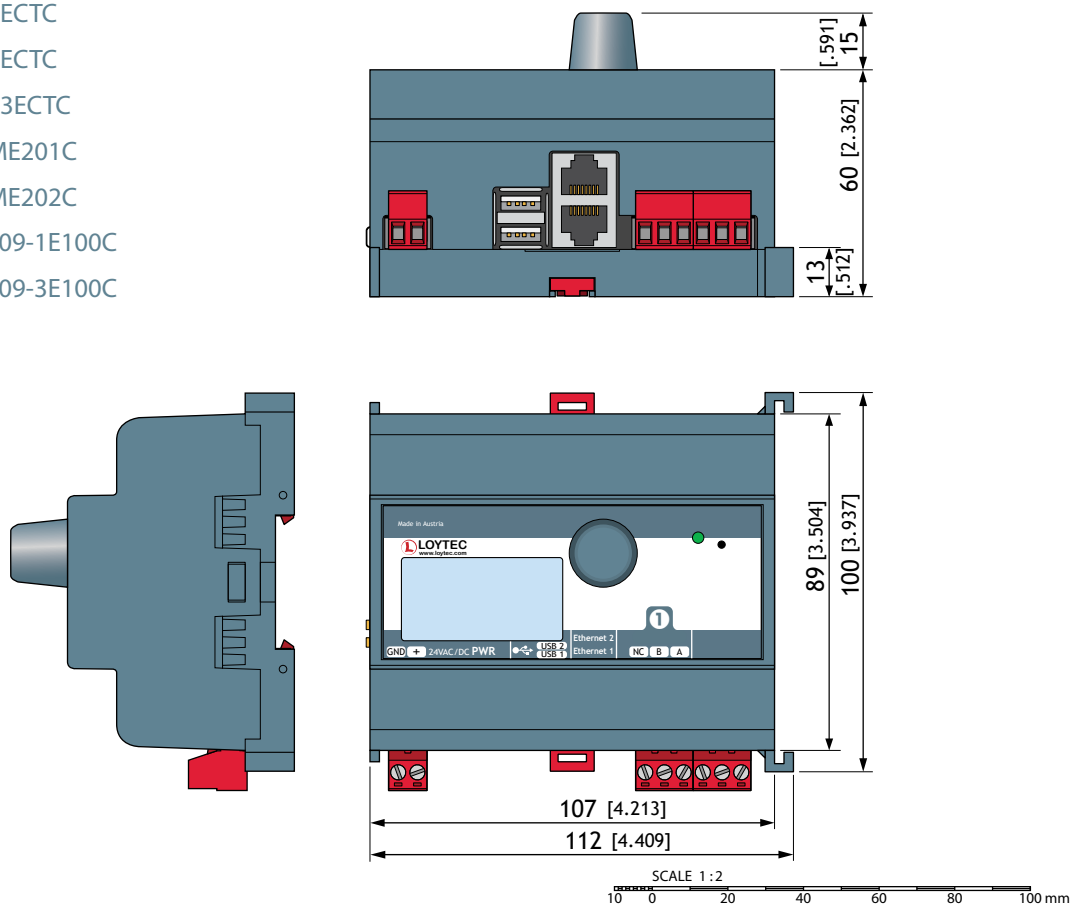
Order number	Product description
LIP-ME201C	BACnet/IP Router, 1 x BACnet MS/TP (RS-485), 2 x Ethernet port (BACnet/IP)
LIP-ME202C	BACnet/IP Router, 2 x BACnet MS/TP (RS-485), 2 x Ethernet port (BACnet/IP)
LIP-ME204C	BACnet/IP Router, 4 x BACnet MS/TP (RS-485), 2 x Ethernet port (BACnet/IP)
LPOW-2415B	Power supply unit with power connector 24 V DC, 15 W
LWLAN-800	Wireless LAN Interface IEEE 802.11bgn
LT-04	Network terminator, 1 x RS-485 (bus topology, ANSI TIA/EIA-485), 1 x Network Access Connector RJ45
LT-B4	Network terminator, 1 x RS-485 (bus topology, ANSI TIA/EIA-485) with biasing circuit (failsafe biasing)
LTE-800	LTE Interface

Dimensions of the devices in mm and [inch]

DIM046

LIP-1ECTC
LIP-3ECTC
LIP-33ECTC
LIP-ME201C
LIP-ME202C
NIC709-1E100C
NIC709-3E100C



DIM054

LINX-154
LIP-3333ECTC
LIP-ME204C