LGATE-950/951

The L-GATE Gateways LGATE-950 and LGATE-951 are powerful universal gateways that can host user specific graphical pages to be used with LWEB-800/802. They can simultaneously integrate and map data points from multiple open protocols. Local operation and override is provided by the built-in jog dial and the backlit display (128x64 pixels). Device and data point information is provided by the Web interface and shown on the display by symbols and in text format.

The powerful universal gateways provide connectivity functions to concurrently integrate CEA-709 (LonMark-Systems), BACnet, KNX, Modbus, and M-Bus subsystems. LonMark Systems can be integrated via IP-852 (Ethernet/IP) or TP/FT-10. BACnet integration is supported through BACnet/IP (Ethernet/IP) or BACnet MS/TP (RS-485). LGATE-950/951 features an integrated Remote Network Interface (RNI) to access the TP/FT-10 channel on the device via Ethernet/IP. Both LGATE-950 and LGATE-951 implement the BACnet Building Controller (B-BC) profile, can be configured to be a BBMD and are BTL tested and WSPcert certified. In addition, the universal gateways provide connectivity to KNXnet/IP and Modbus TCP via Ethernet/IP and to Modbus RTU via RS-485. M-Bus and KNX TP1 device integration needs optional interface modules.

The gateway functionality allows data communication between all communication technologies available on the device. Different technology data points are mapped through Local Connections on the device. The mapping of different technology data points on distributed devices is supported by Global Connections. The universal gateways LGATE-950/951 also support Smart Auto-Connect™ - the automatic generation of connections to substantially reduce engineering efforts and cost. Optionally, mathematical objects can be applied within a connection to calculate the data point output values depending on the formula used. All technology data points are automatically created as OPC XML-DA data.

Each LGATE-950/951 is equipped with two Ethernet ports including a built-in Ethernet switch.

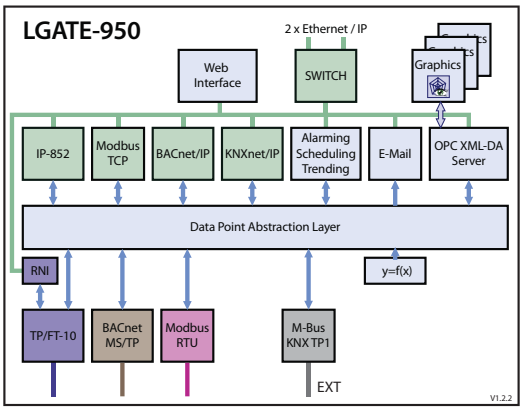
The L-GATE devices provide fully featured AST ™ functionality and integrate perfectly into the L-WEB System.

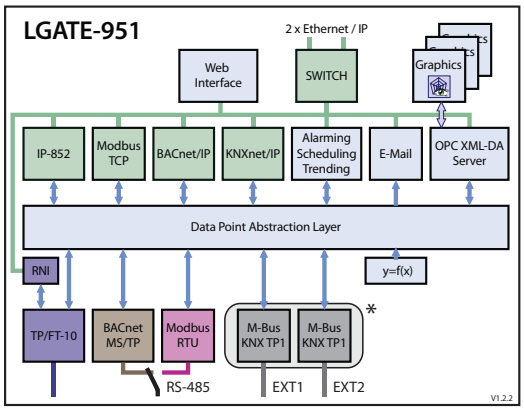
Features

- Universal gateway
- Compliant with ANSI/ASHRAE–135-2008 and ISO 16484-5 standard
- B-BC (BACnet Building Controller) functionality
- Supports BBMD (BACnet Broadcast Management Device)
- Supports BACnet MS/TP or BACnet/IP
- BACnet Client Function (Write Property, Read Property, COV Subscription)
- BACnet Client Configuration with configuration tool (scan and EDE import)
- Compliant with CEA-709, CEA-852 and ISO/IEC 14908 Standard (LonMark System)
- Supports TP/FT-10 or IP-852 (Ethernet/IP)
- Support of dynamically created or static NVs
- Support of CEA-709 user-defined NVs (UNVTs) and Configuration Properties (SCPTs, UCPTs)
- Remote Network Interface (RNI) with 2 MNI devices
- Support of KNX/IP directly, KNX TP1 via LKNX-300 Interface
- M-Bus Master according to EN 13757-3, connection via optional M-Bus Converter (e.g. L-MBUS80)
- Modbus TCP and Modbus RTU (Master or Slave)
- Automatic creation of Local Connections (Smart Auto-Connect™)
- Math objects to execute mathematical operations on data points
- Automatic mapping of network variables to BACnet objects in accordance with CEN/TS 15231:2005
- Alarming, Scheduling, and Trending (AST ™)
- Event-driven e-mail notification
- Stores customized graphical pages
- Visualization of customized graphical pages through LWEB-900 (building management) and LWEB-800/WEB-802
- Built-in OPC XML-DA server
- Access to network statistics
- Integrated Web server for the device configuration and for monitoring of data points
- Manual operation using the jog dial or VNC client
- Local and remote access to information about device status and data points
- 128x64 graphic display with backlight
- Memory expansion with microSD card
- Configurable via Ethernet/IP, USB, or TP/FT-10

L-GATE Gateways

LGATE-950/951





Specifications	
Dimensions (mm)	159 x 100 x 75 (L x W x H), DIM005
Power supply	24 VDC / 24 VAC ±10 %, typ. 2.5 W
Operating conditions	0 °C to 50 °C, 10 – 90 % RH @ 50 °C, non condensing, degree of protection: IP40, IP20 (terminals)
Interfaces	2 x Ethernet (100Base-T) OPC XML-DA LonMark IP-852** BACnet/IP*** KNXnet/IP Modbus TCP (Master or Slave), HTTP, FTP, SSH, HTTPS, Firewall 2 x USB-A, 1 x USB-B (PC) 1 x TP/FT-10** (LonMark System) 1 x BACnet MS/TP*** (LGATE-950 only) 1 x Modbus RTU (Master or Slave) (LGATE-950 only) 1 x BACnet MS/TP or Modubus RTU (LGATE-951 only) 1 x EXT (LGATE-950 only) // 2 x EXT* (LGATE-951 only) EXT port extension alternatively for: • M-Bus, Master EN 13757-3 (needs L-MBUS20/80) • KNX TP1 (needs LKNX-300) ** Only one LKNX-300 and one L-MBUS-20/80 per LGATE-951, only one interface per EXT port* *** LonMark IP-852 or TP/FT-10 (no router)* **** BACnet/IP or BACnet MS/TP (no router)*
Tools	L-INX/L-GATE Configurator
Remote Network Interface	1 RNI with 2 MNI devices

Resource limits			
OPC XML-DA data points	5 000	LonMark Calendar	1 (25 calendar templates)
BACnet objects	1 000 (analog, binary, multi-state)	LonMark Scheduler	100
BACnet client mappings	1 000	LonMark Alarm Server	1
BACnet calendar objects	25	E-mail templates	100
BACnet scheduler objects	100 (64 data points per object)	Math objects	100
BACnet notification classes	32	Alarm logs	10
Trend logs (BACnet or generically)	512 (4 000 000 logs, ≈ 60 MB)	M-Bus data points	1 000
Total trended data points	512	Modbus data points	2 000
CEA-709 network variables (NVs)	2 000	KNX TP1 data points	1 000
CEA-709 Alias NVs	2 000	KNXnet/IP data points	1 000
CEA-709 External NVs (polling)	1 000	Connections (Local / Global)	2 000 / 250
CEA-709 address table entries	1 000 („non-ECS mode“: 15)	Number of L-WEB clients	32 (simultaneously)

Order number	Product description
LGATE-950	Universal Gateway
LGATE-951	Universal Gateway
LPOW-2415A	LIOB-Connect power supply unit, 24 VDC, 15 W
LPOW-2415B	Power supply unit with power connector 24 VDC, 15 W
LOPC-BR800	OPC Bridge (PC software) to connect OPC DA clients (COM/DCOM) with L-INX Automation Servers
L-MBUS20	M-Bus level converter for 20 M-Bus devices
L-MBUS80	M-Bus level converter for 80 M-Bus devices
LKNX-300	KNX interface to connect KNX TP1 devices