

LIOB-58x I/O Controllers are IP-enabled, compact, programmable automation stations for BACnet/IP networks with physical inputs and outputs and integrated graphical visualization.

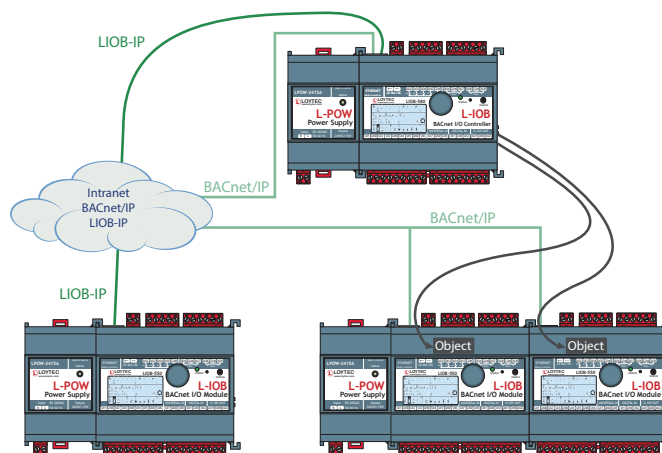
BACnet/IP over Ethernet

The LIOB-58x I/O Controller is equipped with two Ethernet ports including a built-in Ethernet switch. This allows for building a daisy chained line topology of up to 20 devices, which reduces costs for network installation. Dual Ethernet port devices also allow 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.

Technology data points are automatically exposed as OPC tags for higher level OPC client applications or L-WEB system via the integrated OPC server providing SSL encrypted web services (OPC XML-DA) or UA Secure Conversation (OPC UA). The L-IOB I/O Controllers further allow data exchange over global connections (network-wide data exchange), offer AST™ functions (Alarming, Scheduling, and Trending), store custom graphic pages for visualization in LWEB-802/803, and can be seamlessly integrated in the LWEB-900 Building Management System. LIOB-58x I/O Controllers implement the BACnet Building Controller (B-BC) profile and are BTL certified.

Local Operation and Override

All L-IOB I/O Controllers are equipped with an LCD display (128x64) with backlight and jog dial for manual local operation and override. Device and data point information is displayed in text form and via graphical symbols.



Features

- Automation station with physical inputs and outputs
- Programmable with L-LOGICAD (IEC 61131-3) or L-STUDIO* (IEC 61131-3 or IEC 61499)
- Dual Ethernet/IP interface
- Manual operation using the jog dial or VNC client
- 128x64 graphic display with backlight
- Local access to information about device status and data points in clear text and symbols
- Stores customized graphical pages
- Visualization of customized graphical pages through LWEB-900 (building management), or LWEB-802/803
- Integrated web server for device configuration and monitoring data points
- Extension with physical inputs and outputs using one L-IOB I/O Module (LIOB-45x/LIOB-55x)
- Compliant with ANSI/ASHRAE 135-2012 and ISO 16484-5:2012 standard
- B-BC (BACnet Building Controller) functionality, BTL certified
- BACnet objects for integration in BACnet/IP channels
- BACnet Client Mappings for integration in BACnet/IP channels
- Alarming, Scheduling, and Trending (AST™)
- Event-driven e-mail notification
- Math objects to execute mathematical operations on data points
- Built-in OPC XML-DA and OPC UA server
- Stores user-defined project documentation

*requires L-STUDIO-LIOB software license

LIQB-BIP I/O Controller

LIQB-580/581/582/583/584 V2

General Specifications

Dimensions (mm)	107 x 100 x 75 (L x W x H), DIM018, DIM019, DIM020, DIM021, DIM022
Installation	DIN rail mounting following DIN 43880, top hat rail EN 50022
Operating conditions	0 °C to 50 °C, 10–90 % RH, noncondensing, degree of protection: IP40, IP20 (terminals)
Power supply	24 VDC / 24 VAC ±10 %
Program cycle time	Down to 10 ms
L-IOB I/O Module	1 L-IOB I/O Module of type LIQB-BIP
Interface	2 x Ethernet (100Base-T): OPC XML-DA, OPC UA BACnet/IP, LIQB-IP

Resource limits

Total number of data points	2000	Total trended data points	100
OPC data points	300	E-mail templates	20
BACnet objects	300 (analog, binary, multi-state)	Math objects	20
BACnet client mappings	300	Alarm logs	5
BACnet calendar objects	25	Connections (Local / Global)	200 / 100
BACnet scheduler objects	10	Number of L-WEB clients	32
BACnet notification classes	32	L-IOB I/O Module	1 (LIQB-BIP)
Trend logs (BACnet or generic)	50 (390 000 entries, ≈ 6 MB)		

Specifications LIQB-BIP I/O Controller (LIQB-58x)

Type	LIQB-580	LIQB-581	LIQB-582	LIQB-583	LIQB-584
Power consumption	4.5 W (Relays on)	4.5 W	4.5 W (Relays on)	4.5 W (Relays on)	4.5 W (Relays on)
Universal Input (UI)	8	8	6	6	7
Digital Input (DI)	2	12	-	-	-
Analog Output (AO)	2	-	6	6	4
Digital Output (DO)	8 (4 x Relay 6 A, 4 x Triac 0.5 A)	-	8 (8 x Relay 6 A)	5 (4 x Relay 16 A, 1 x Relay 6 A)	7 (5 x Relay 6 A, 2 x Triac 0.5 A)
Digital Output specification	Please refer to the "General Input and Output Specification of LOYTEC devices" at the end of the L-IOB section for more details.				
Differential Pressure Sensor	-	-	-	-	0–500 Pa

Runtime licenses

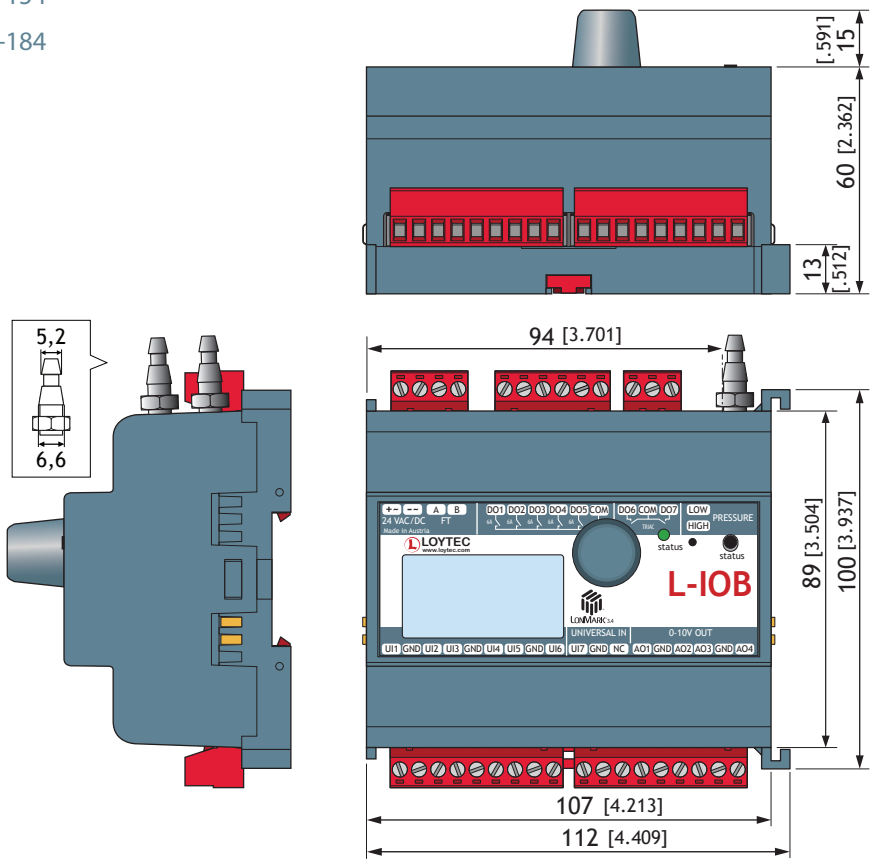
Type	LIQB-580/581/582/583/584	LIQB-580/581/582/583/584 (V2)
Programming, Tools	L-LOGICAD software (IEC 61131-3)	L-LOGICAD software (IEC 61131-3) L-STUDIO software (IEC 61131-3 or IEC 61499)
License	L-STUDIO: n/a L-LOGICAD: included	L-STUDIO: upgradable L-LOGICAD: included

Order number Product description

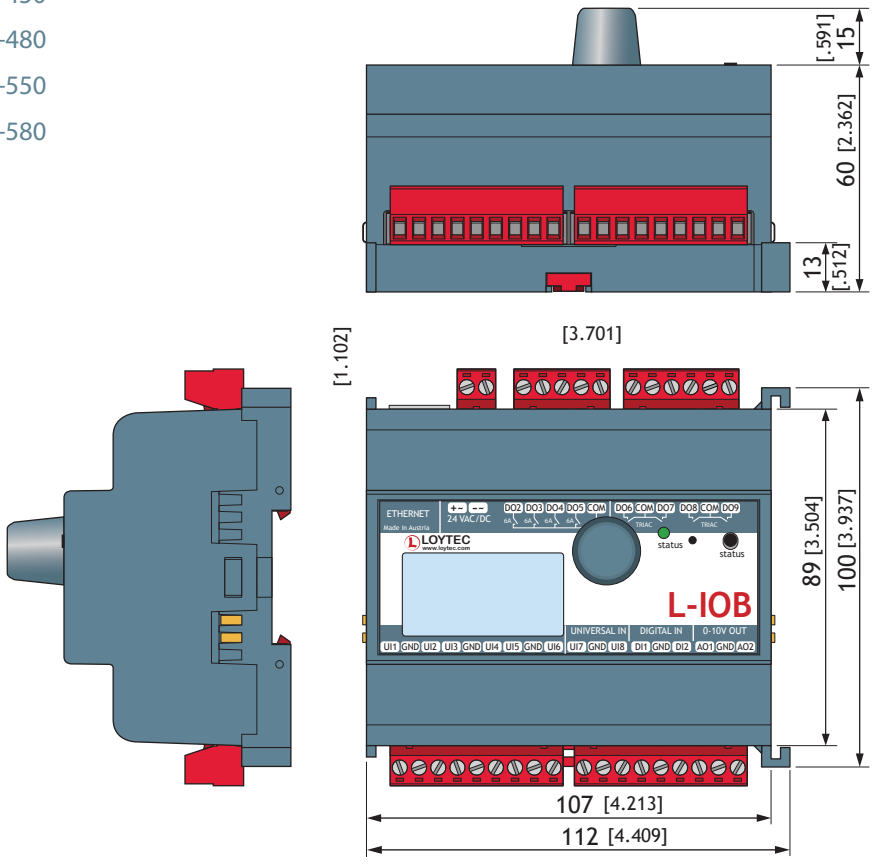
LIQB-580	LIQB-BIP I/O Controller: 8 UI, 2 DI, 2 AO, 8 DO (4 x Relay 6 A, 4 x Triac 0.5 A)
LIQB-581	LIQB-BIP I/O Controller: 8 UI, 12 DI
LIQB-582	LIQB-BIP I/O Controller: 6 UI, 6 AO, 8 DO (8 x Relay 6 A)
LIQB-583	LIQB-BIP I/O Controller: 6 UI, 6 AO, 5 DO (4 x Relay 16 A, 1 x Relay 6 A)
LIQB-584	LIQB-BIP I/O Controller: 7 UI, 4 AO, 7 DO (5 x Relay 6 A, 2 x Triac 0.5 A), 1 Pressure Sensor
L-STUDIO-LIOB	License for L-IOB to activate the L-STUDIO runtime (for LIQB-48x/580/581/582/583/584 V2)
L-LOGICAD-USB	IEC 61131-3 programming tool, single license, includes USB dongle
LPOW-2415A	LIQB-Connect power supply unit, 24 VDC, 15 W
LPOW-2415B	Power supply unit with power connector 24 VDC, 15 W
L-TEMP2	External temperature sensor (NTC10K) for use with L-IOB Universal Inputs

Dimensions of the devices in mm and [inch]

DIM017 LIOB-154
LIOB-184

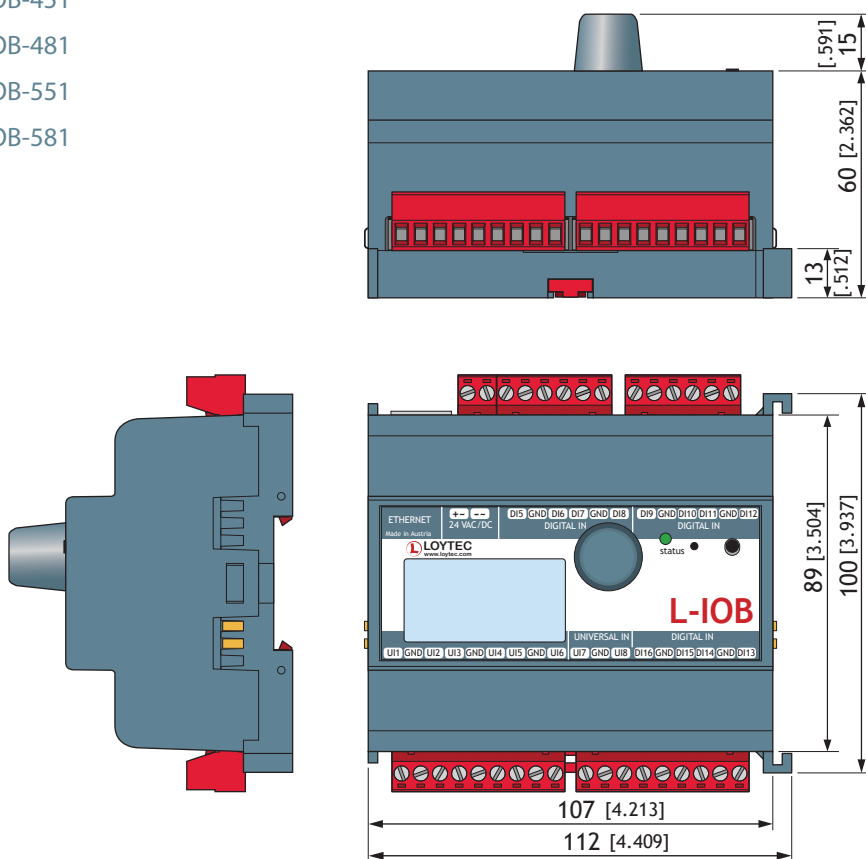


DIM018 LIOB-450
LIOB-480
LIOB-550
LIOB-580

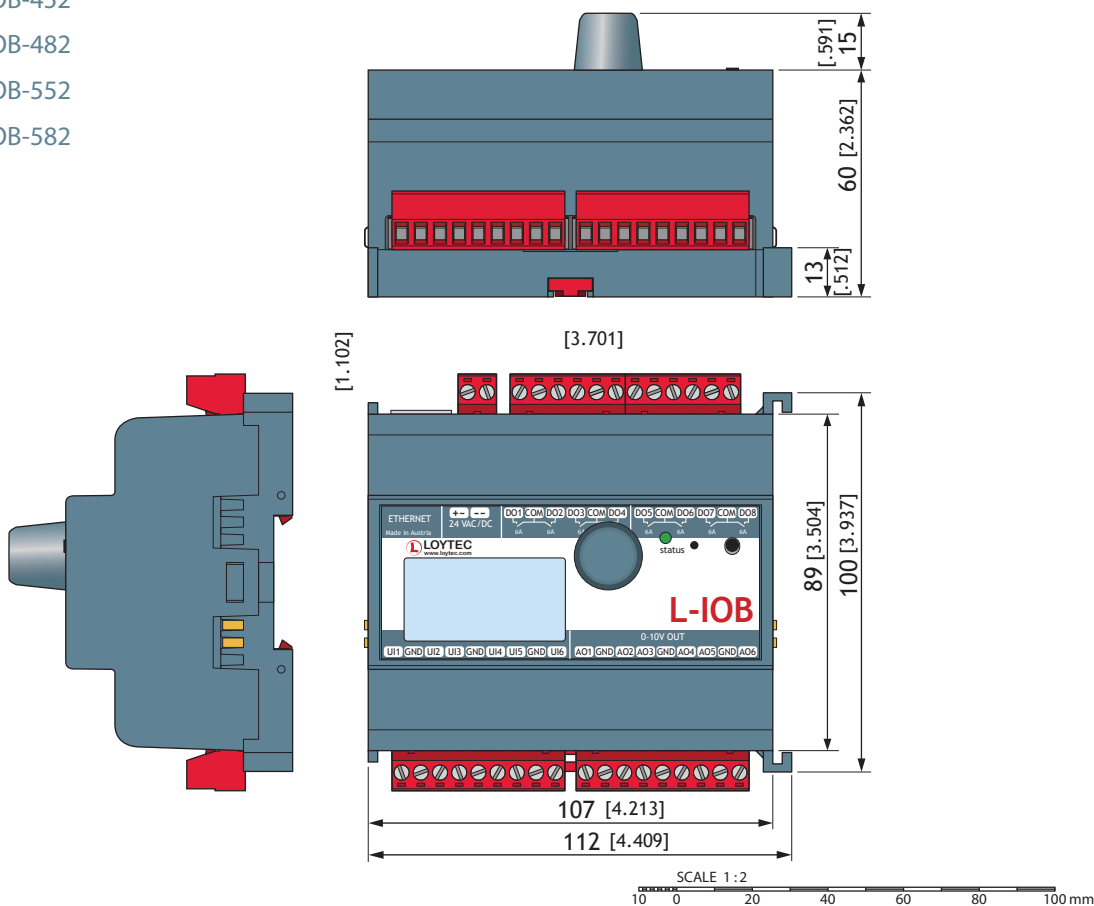


Dimensions of the devices in mm and [inch]

DIM019 LIOB-451
 LIOB-481
 LIOB-551
 LIOB-581

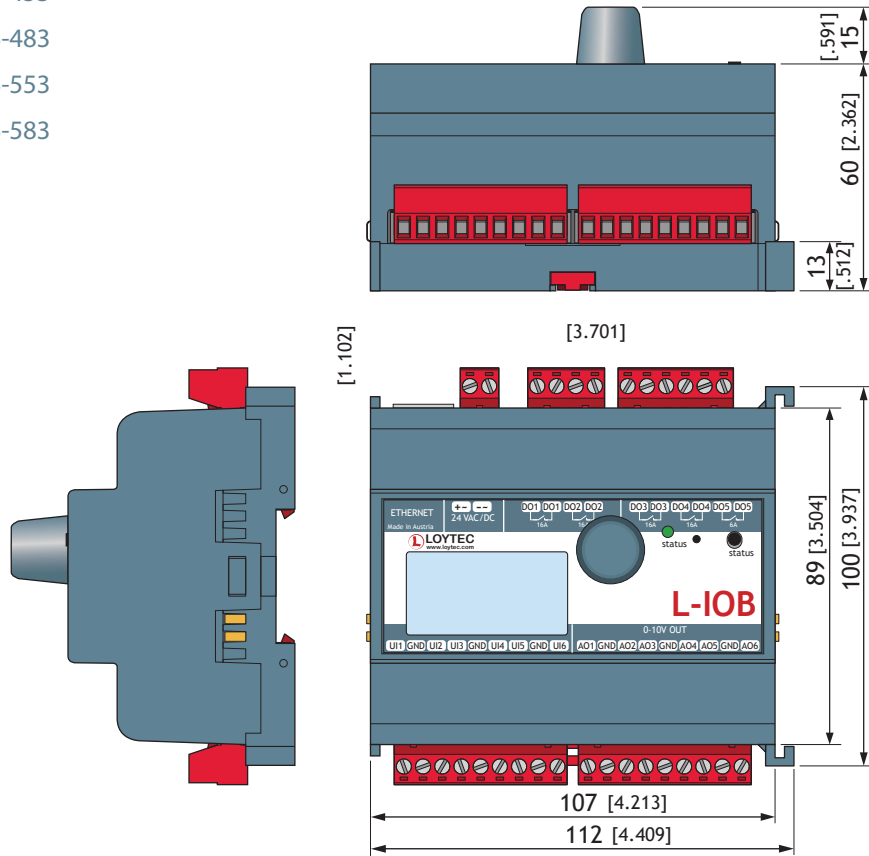


DIM020 LIOB-452
 LIOB-482
 LIOB-552
 LIOB-582



Dimensions of the devices in mm and [inch]

DIM021 LIOB-453
 LIOB-483
 LIOB-553
 LIOB-583



DIM022 LIOB-454
 LIOB-484
 LIOB-554
 LIOB-584

