

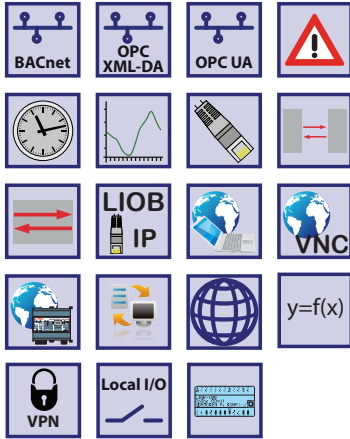
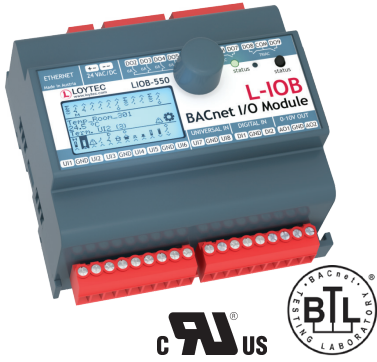
LIOB-BIP I/O Module

LIOB-550/551/552/553/554 V2

Datasheet #89027120

✓ BACnet  
CEA-709  
KNX

Modbus  
M-Bus  
✓ OPC



The LIOB-55x Modules communicate over Ethernet/IP in the BACnet/IP network. They adhere to the BACnet Building Controller Profile (B-BC) and either expose their I/O data points through BACnet server objects or actively fetch them from a BACnet server via BACnet client maps.

According to the B-BC profile, the LIOB-55x Modules support BACnet alarming, scheduling, and trending. They are BTL tested and certified.

**BACnet/IP over Ethernet**

The LIOB-55x I/O Modules are 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.

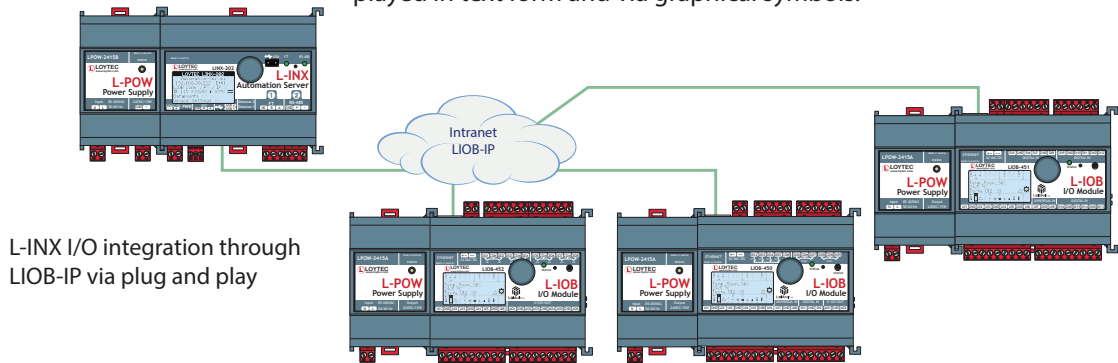
The LIOB-55x Modules are equipped with a web interface to query the device status and display or change each data point of the module. In addition to the BACnet object interface, the I/O data points are exposed by the integrated OPC server providing SSL encrypted web services (OPC XML-DA) or UA Secure Conversation (OPC UA). The local display can be accessed via VNC.

**LIOB-IP Mode**

The LIOB-55x Modules can be switched to LIOB-IP mode using manual local operation. In LIOB-IP mode, the LIOB-55x Modules extend L-INX Automation Servers, L-ROC Room Controllers, L-IOB I/O Controllers, and LIOB-AIR I/O Controllers with physical inputs and outputs via plug and play.

**Local Operation and Override**

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

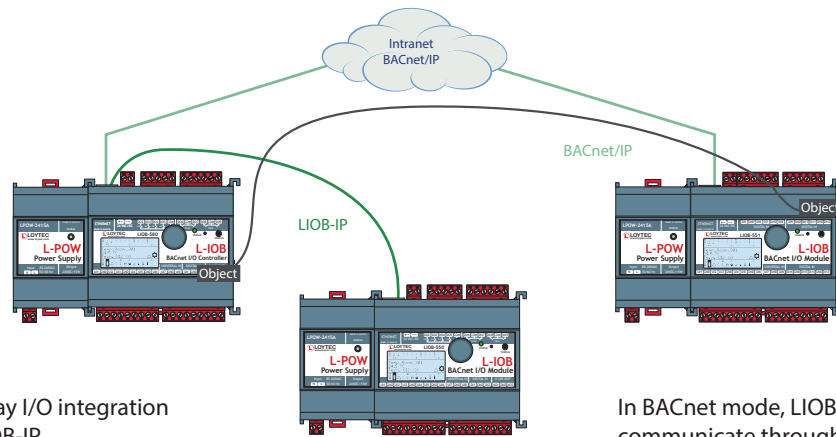


L-INX I/O integration through LIOB-IP via plug and play

**Features**

- I/O module with physical inputs and outputs
- Dual Ethernet/IP interface
- BACnet objects for integration in BACnet/IP channels
- BACnet Client Mappings to access to BACnet/IP objects
- Fulfills the BACnet Building Controller Profile (B-BC)
- 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
- Integrated web server for device configuration and monitoring data points
- Compliant with ANSI/ASHRAE 135-2012 and ISO 16484-5:2012 standard
- B-BC (BACnet Building Controller) functionality, BTL certified
- Supports BACnet Alarming, Scheduling, and Trending
- Connected to the L-INX Automation Server, L-ROC Room Controller, L-IOB I/O Controller, and LIOB-AIR I/O Controller via LIOB-IP
- Automatic integration into device configurations with L-INX, L-ROC, L-IOB I/O Controller, and LIOB-AIR
- Easy device replacement without any additional software
- Built-in OPC XML-DA and OPC UA server
- Math objects to execute mathematical operations on data points

# LIOB-550/551/552/553/554 V2



Plug and play I/O integration through LIOB-IP

In BACnet mode, LIOB-BIP devices communicate through BACnet/IP

## 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 % via L-INX, L-ROC, L-POW or LIOB-A2/A4 via LIOB-Connect
Interface	2 x Ethernet (100Base-T): OPC XML-DA, OPC UA, LIOB-IP, BACnet/IP

## Specifications LIOB-BIP I/O Module (LIOB-55x)

Type	LIOB-550	LIOB-551	LIOB-552	LIOB-553	LIOB-554
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 <a href="#">"General Input and Output Specification of LOYTEC devices"</a> at the end of the L-IOB section for more details.				
Differential Pressure Sensor	-	-	-	-	0–500 Pa

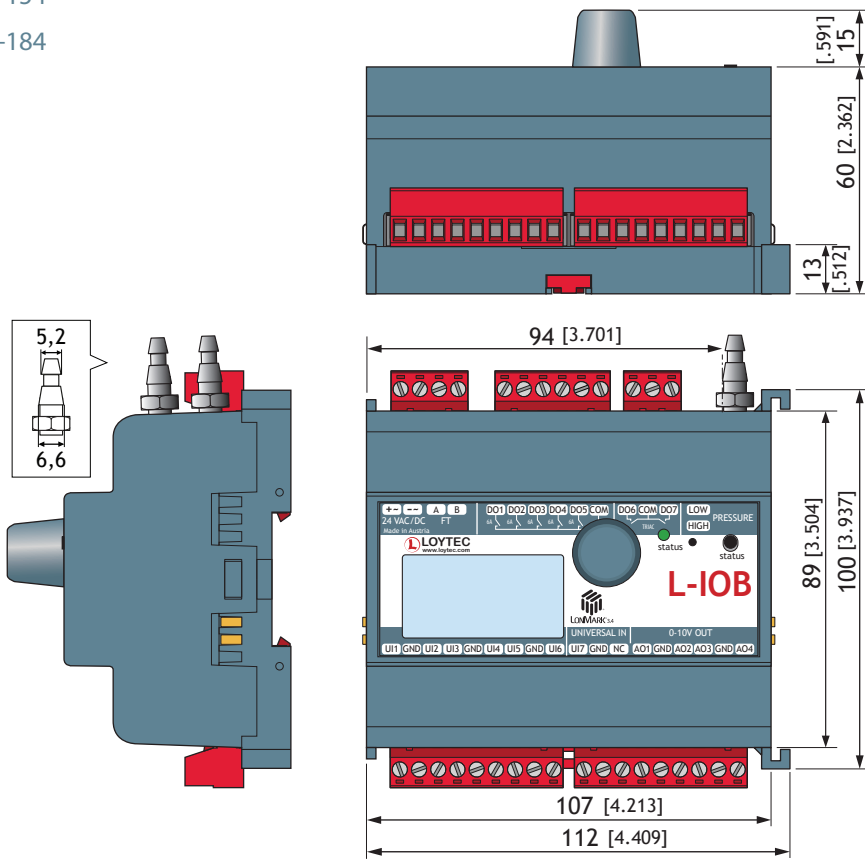
## Resource limits

OPC data points	100	BACnet notification classes	32
BACnet objects	1 per I/O	Trend logs (BACnet or generic)	10 (130 000 entries, ≈ 2 MB)
BACnet client mappings	20	Total trended data points	10
BACnet calendar objects	10	Alarm logs	5
BACnet scheduler objects	5	Connections (Local / Global)	200 / 100
Math objects	20		

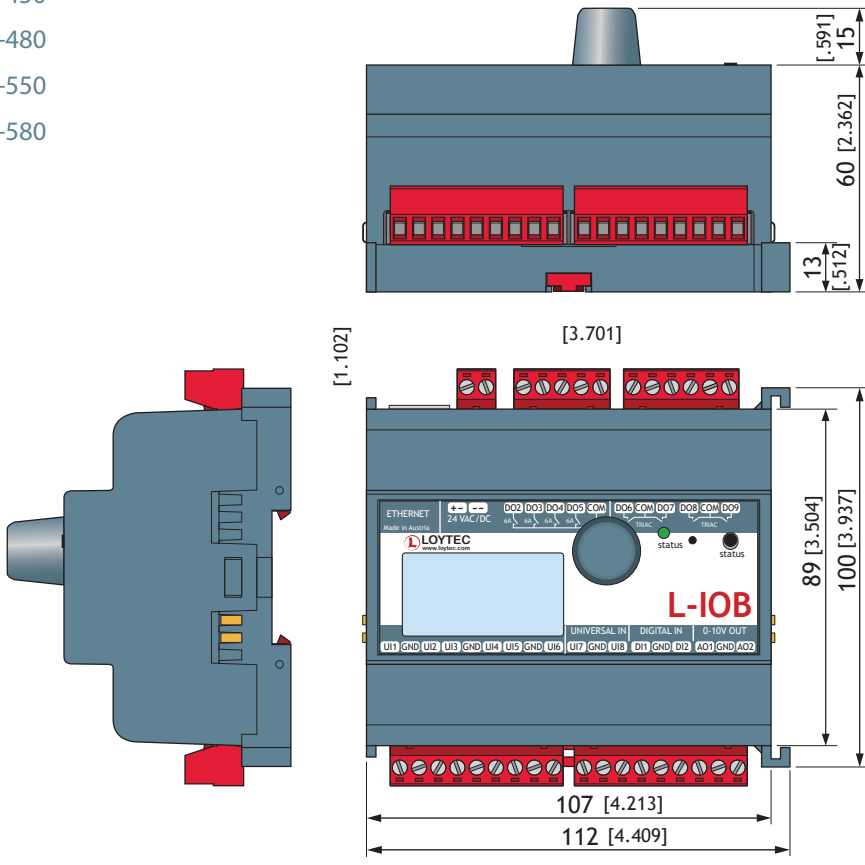
Order number	Product description
LIOB-550	LIOB-BIP I/O Module: 8 UI, 2 DI, 2 AO, 8 DO (4 x Relay 6 A, 4 x Triac 0.5 A)
LIOB-551	LIOB-BIP I/O Module: 8 UI, 12 DI
LIOB-552	LIOB-BIP I/O Module: 6 UI, 6 AO, 8 DO (8 x Relay 6 A)
LIOB-553	LIOB-BIP I/O Module: 6 UI, 6 AO, 5 DO (4 x Relay 16 A, 1 x Relay 6 A)
LIOB-554	LIOB-BIP I/O Module: 7 UI, 4 AO, 7 DO (5 x Relay 6 A, 2 x Triac 0.5 A), 1 Pressure Sensor
LPOW-2415A	LIOB-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

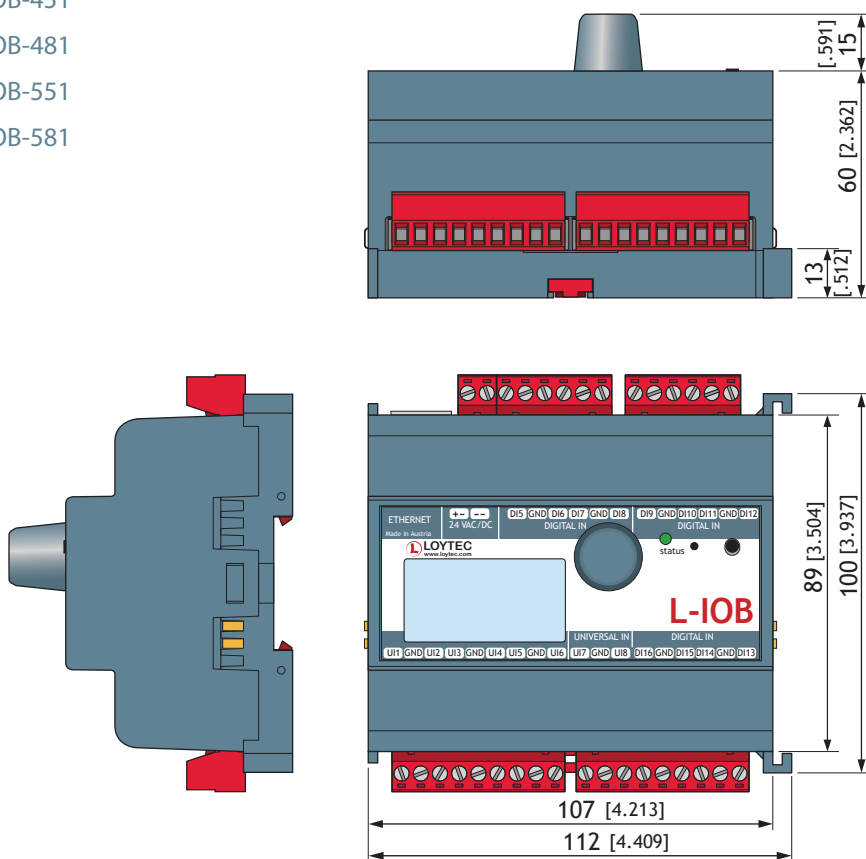


**DIM018** LIOB-450  
LIOB-480  
LIOB-550  
LIOB-580

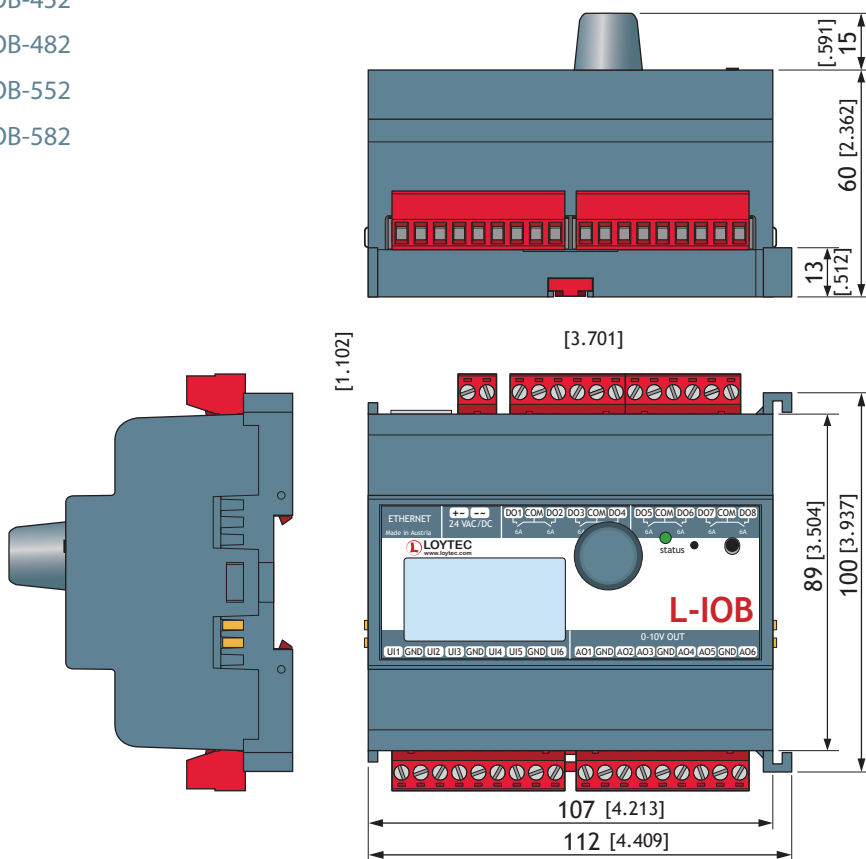


# Dimensions of the devices in mm and [inch]

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

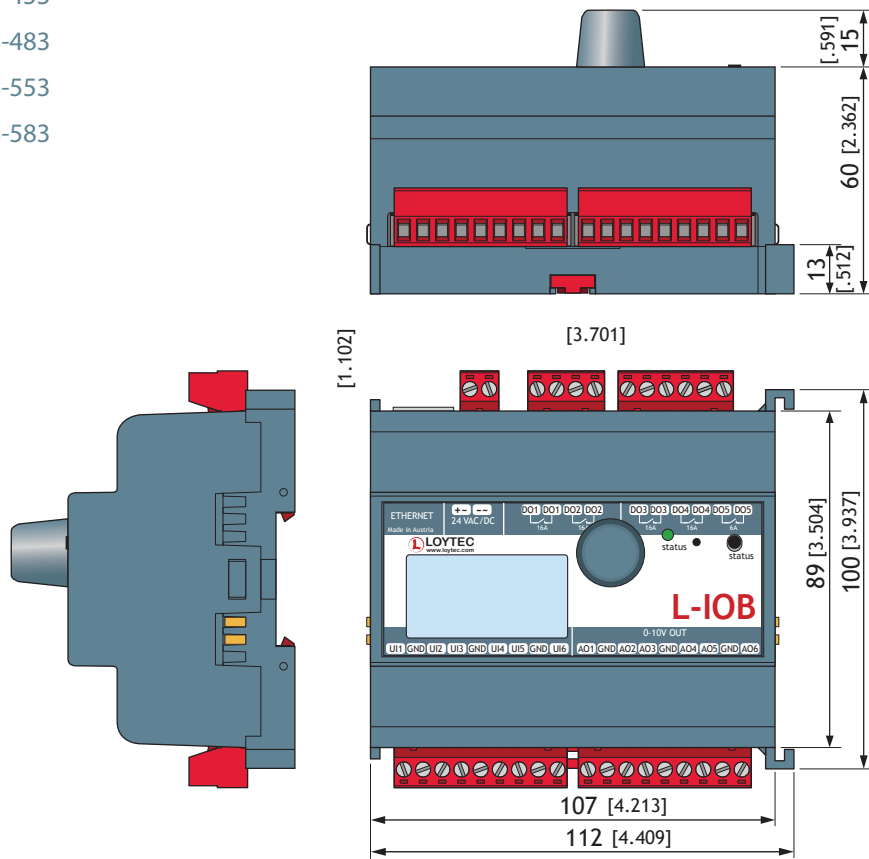


**DIM020** LIOB-452  
 LIOB-482  
 LIOB-552  
 LIOB-582



# 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

