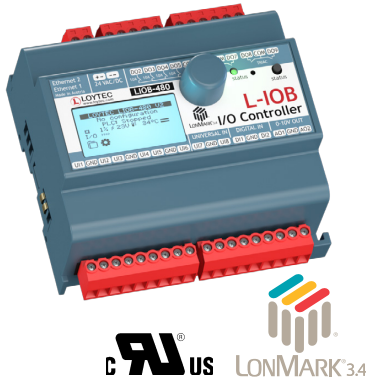




Datasheet #89026521



LIOB-48x I/O Controllers are IP-enabled, compact, programmable automation stations for LonMark Systems with physical inputs and outputs and integrated graphical visualization.

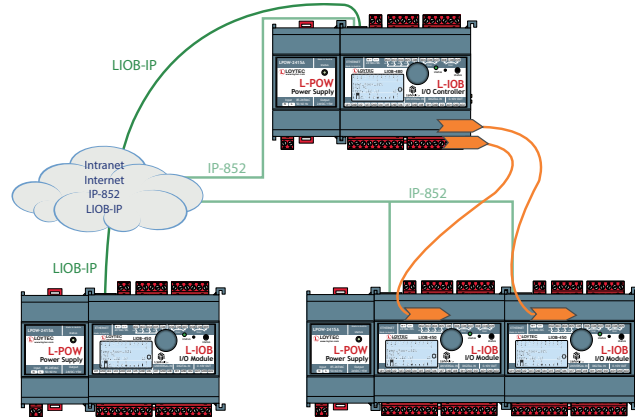
LonMark IP-852 Channel over Ethernet

The LIOB-48x 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.

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/55x) via plug and play
- Compliant with CEA-852 and ISO/IEC 14908-4 standard (LonMark System)
- LonMark certified
- SNVT-based interface for integration in the LonMark IP-852 channel
- NV interface can be freely defined
- Up to 256 address table entries (ECS mode)
- LNS plug-in for device configuration in the LonMark System
- 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

LIOB-480/481/482/483/484 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 LIOB-IP852 or LIOB-BIP
Interface	2 x Ethernet (100Base-T): OPC XML-DA, OPC UA LonMark IP-852, LIOB-IP

Resource limits			
Total number of data points	2 000	Trend logs	50 (390 000 entries, ≈ 6 MB)
OPC data points	300	Total trended data points	100
Network variables (NVs)	200	E-mail templates	20
Alias NVs	200	Math objects	20
Address table entries	256 (non-ECS mode: 15)	Alarm logs	5
LonMark Calendars	1 (25 calendar patterns)	Connections (Local / Global)	200 / 100
LonMark Schedulers	10	Number of L-WEB clients	32
LonMark Alarm Servers	1	L-IOB I/O Module	1 (LIOB-IP852)

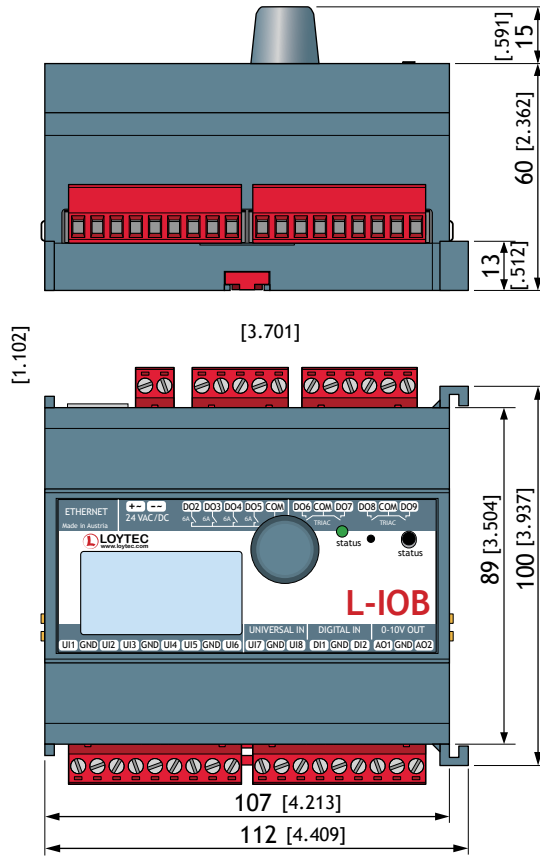
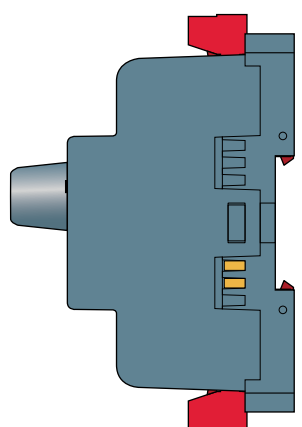
Specifications LIOB-IP852 I/O Controller (LIOB-48x)					
Type	LIOB-480	LIOB-481	LIOB-482	LIOB-483	LIOB-484
Power consumption	4.5 W (Relays on)	4.5 W	4.5 W (Relays on)	4.5 W (Relays on)	4.5 W (Relays on)
Universal Input (UI)	8	8	6	6	7
Digital Input (DI)	2	12	-	-	-
Analog Output (AO)	2	-	6	6	4
Digital 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	LIOB-48x	LIOB-48x (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

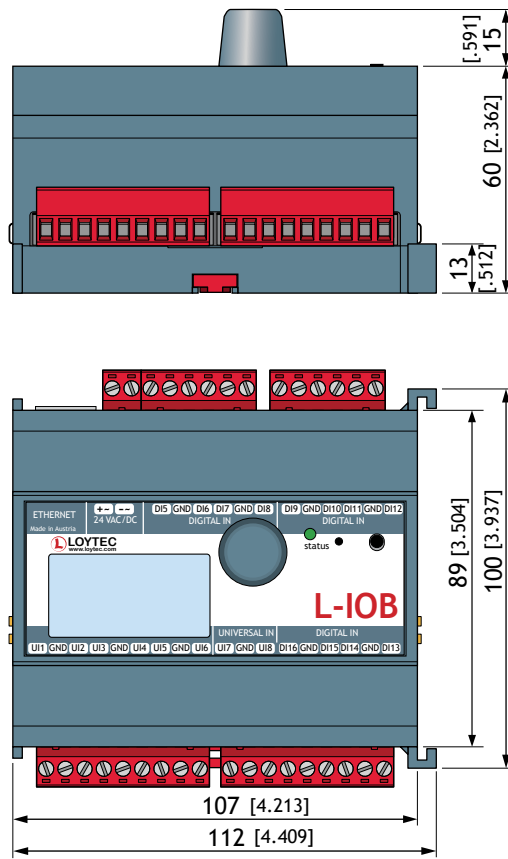
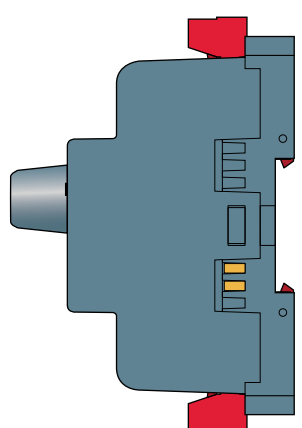
Order number	Product description
LIOB-480	LIOB-IP852 I/O Controller: 8 UI, 2 DI, 2 AO, 8 DO (4 x Relay 6 A, 4 x Triac 0.5 A)
LIOB-481	LIOB-IP852 I/O Controller: 8 UI, 12 DI
LIOB-482	LIOB-IP852 I/O Controller: 6 UI, 6 AO, 8 DO (8 x Relay 6 A)
LIOB-483	LIOB-IP852 I/O Controller: 6 UI, 6 AO, 5 DO (4 x Relay 16 A, 1 x Relay 6 A)
LIOB-484	LIOB-IP852 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 LIOB-48x/580/581/582/583/584 V2)
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]

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

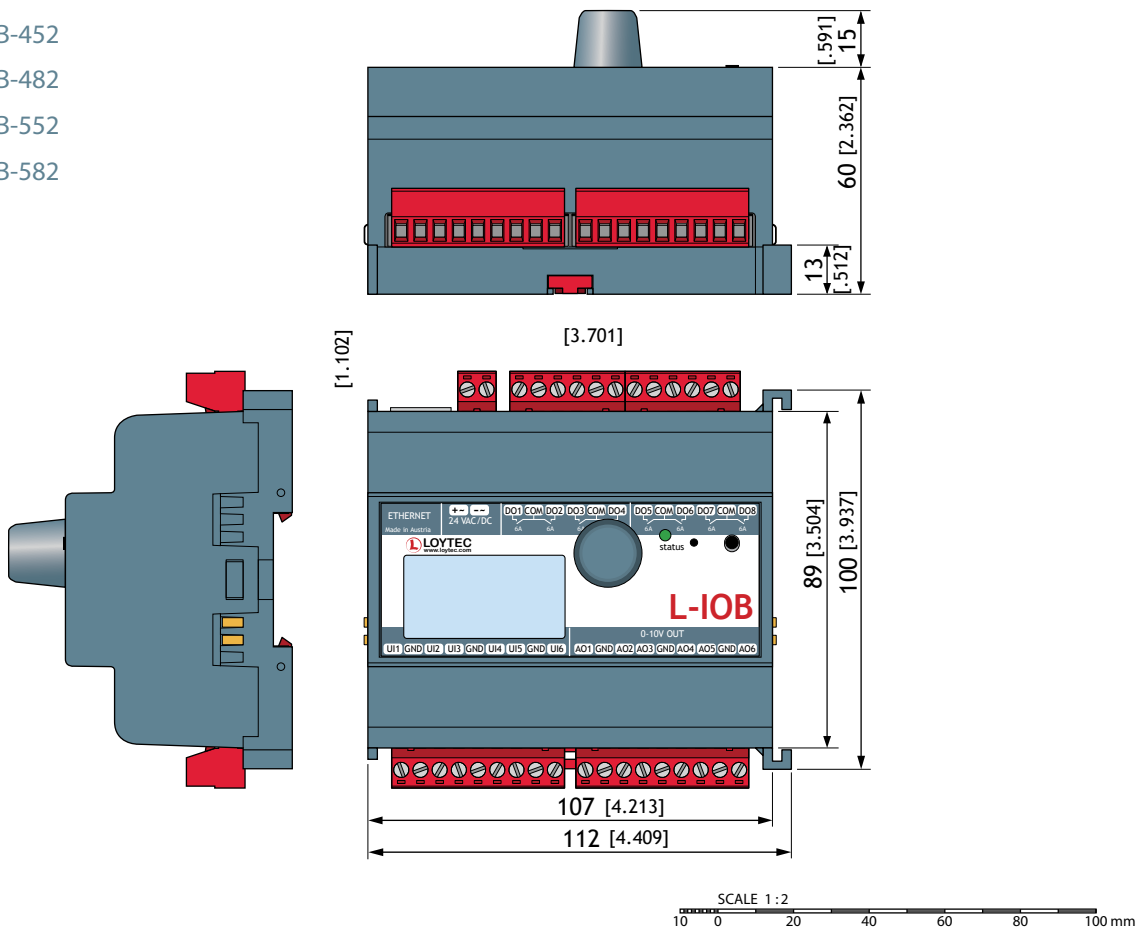


DIM019 LIOB-451
 LIOB-481
 LIOB-551
 LIOB-581

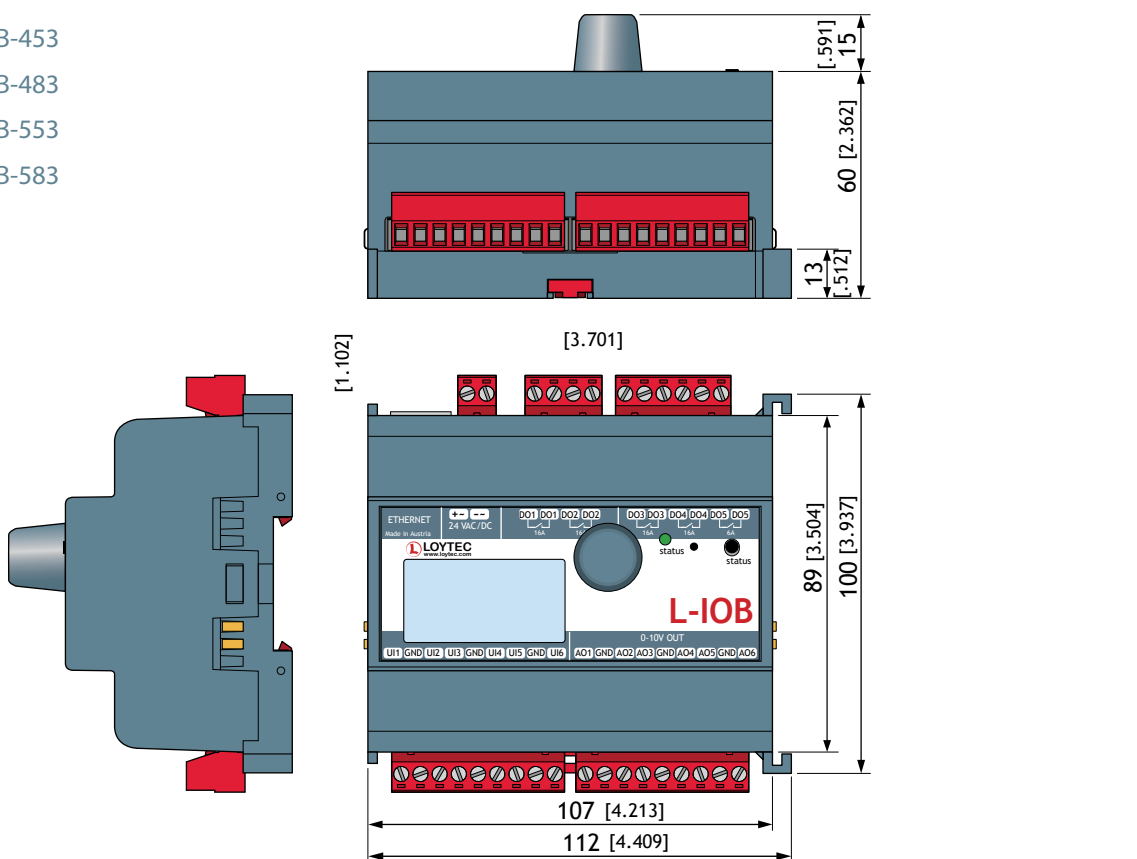


Dimensions of the devices in mm and [inch]

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

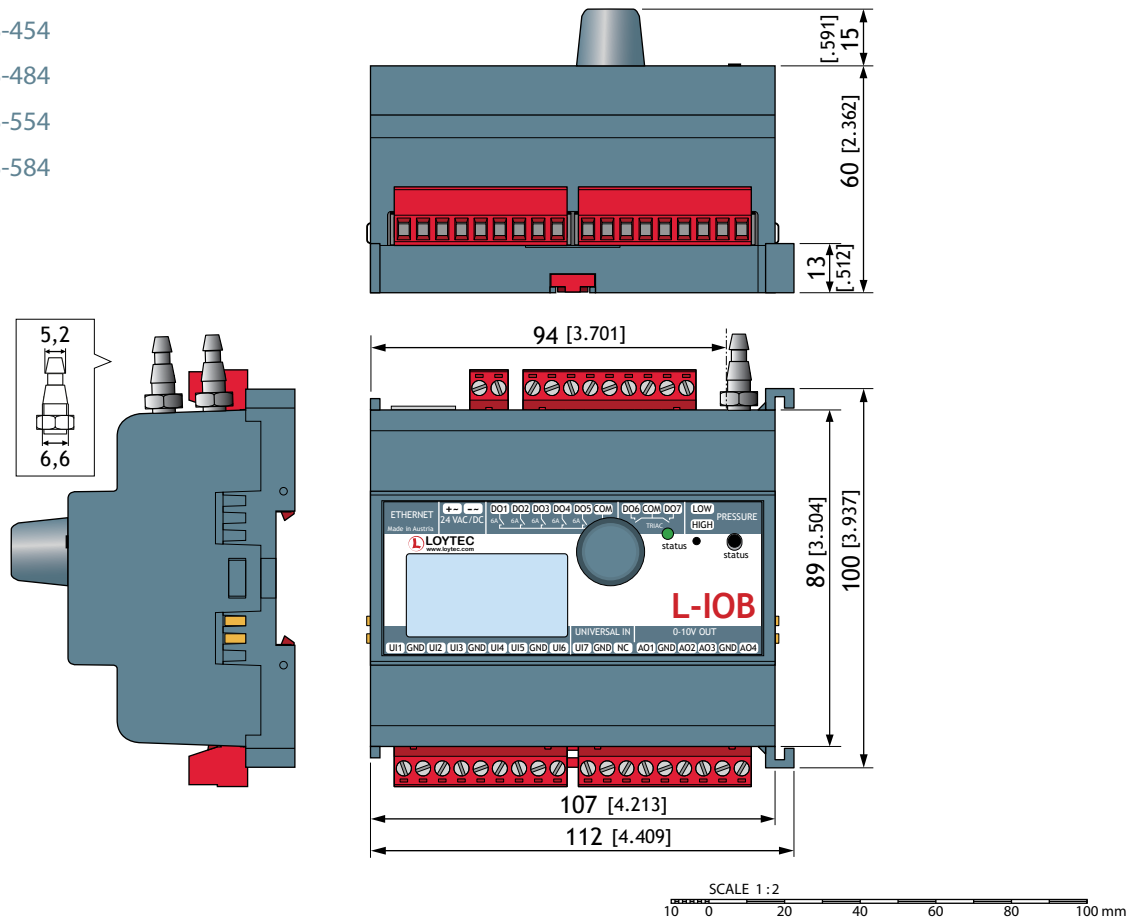


DIM021 LIOB-453
 LIOB-483
 LIOB-553
 LIOB-583



Dimensions of the devices in mm and [inch]

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



The products of LOYTEC electronics GmbH are subject to constant development. Therefore, LOYTEC reserves the right to modify technical specifications at any time without prior notice. The most recent datasheet can be downloaded from www.loytec.com.