LIEBERT® UNIVERSAL MONITOR
Product Specification/Installation Guide

Liebert Universal Monitor Small and Large Enclosure

The Liebert Universal Monitor is a microprocessor with multi-sensing, remote-monitoring and remote-control capability. Its advanced technology provides high-availability monitoring around the clock.

The Liebert Universal Monitor can operate as an independent, stand-alone controller or in conjunction with Liebert's SiteScan® Web Enterprise Monitoring System.

The Universal Monitor's enclosure makes it suited for applications in new construction and retrofit jobs and can be mounted on a wall's surface or recessed within a wall.

FEATURES

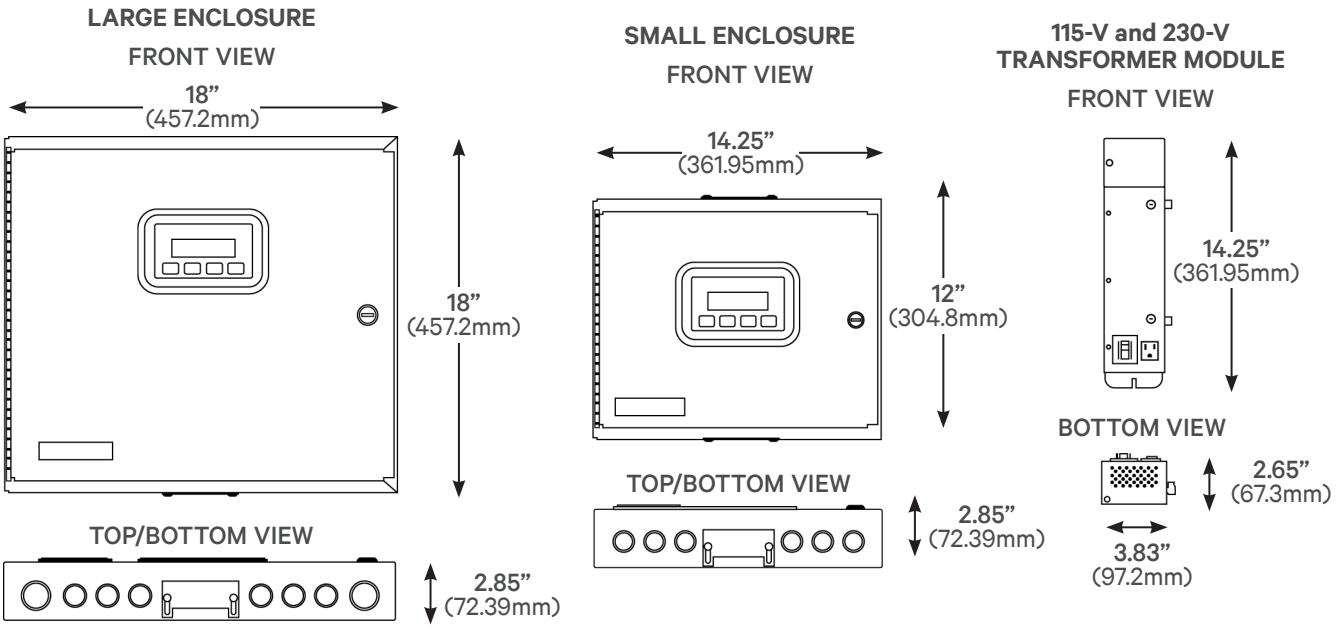
- Password-protected display and keypad accesses configuration and monitoring.
- Custom configuration for specific applications
- Paging capability—up to 4 contact numbers
- Preconfigured, on-board modem
- Alarm, Event and Trend logs with time-and-date stamp
- Battery back-up to ensure alarm notification
- Back-up and download configuration files
- User interface via RS232 or modem connection
- On-board audible alarm
- Configuration data and operating program permanently stored in nonvolatile Electrically Erasable Programmable Read Only Memory (EEPROM) for protection against power loss
- Real-time clock
- Status LEDs for verification and diagnostics

Universal Monitor Enclosure

The Universal Monitor is available in two sizes with the same standard components except that the large enclosure includes and internal transformer module.

The enclosure includes a key lock for added security, is made of metal to protect from environmental exposure, and includes top and bottom access slots for cables and wiring.

DIMENSIONS - TOP, FRONT AND SIDE



Controller Input and Output

The controller supports the following data points:

- 8 digital inputs, dry-contact
- 4 analog inputs, 4-20 mA
- 8 digital outputs, Form C contact-relay
- 2 common-alarm outputs, Form C contact-relay

Point terminations on the control board are made using removable terminal blocks, and a 10-minute battery back-up allows power-loss notifications. The board includes RS232, RJ11, and IGM 422 ports/ connections.

Transformer Module

The large Universal Monitor includes one of the following:

- 115-VAC transformer module for step-down power from 115 VAC to 24 VAC, two Class 2, 24-VAC, 40-VA power terminations, and one 115-VAC outlet.
- 230-VAC transformer module for step-down power from 230 VAC to 24 VAC, two Class 2, 24-VAC, 40-VA power terminations.

For small Universal Monitors, you can order the transformer separately and mount it outside the enclosure.

WIRING SPECIFICATIONS

CONNECTION	MAXIMUM LENGTH, ft (m)	RATING	SUPPORTED TYPE
Digital Input	750 (225)	Dry-contact, 24 VDC, 10 mA	18 – 22 AWG stranded, unshielded (18 AWG recommended) Non-plenum: Belden 9740 Plenum: Belden 89740
Analog Input 2-wire transducer	750 (225)	4-20 mA signal input, selectable power source, 12/24 VDC	
Digital Output	**8 AWG** @3 A: 50 (15), @2 A: 100 (30), @1 A: 200 **20 AWG** @3 A: 40 (12), @2 A: 60 (18), @1 A: 100 (30) **22 AWG** @3 A: 25 (7), @2 A: 35 (10), @1 A: 74 (23)	24 VAC @ 3 A	
Common Alarm Output			
Analog Input 4-wire transducer	750 (225)	4-20 mA signal input, selectable power source, 12/24 VDC	18 – 22 AWG stranded, unshielded (18 AWG recommended) Non-plenum: Belden 8489 Plenum: Belden 88489
Communication RS232	50 (15)	N/A	Null modem cable
Communication IGM422 SiteScan	1,000 (300)	N/A	18 – 22 AWG stranded, unshielded (22 AWG recommended) Non-plenum: Belden 9461 Plenum: Belden 88761
Communication EIA485			
Phone/Modem Line	N/A	N/A	4-wire (Pins 3 and 4) RJ11 connector
24-VAC Power	150 (45)	24 VAC @ 1.3 A	18 – 22 AWG stranded, unshielded (18 AWG recommended) Non-plenum: Belden 8770 Plenum: Belden 88770

TRANSFORMER MODULE WIRING SPECIFICATIONS

115 VAC Power	150 (45)	115 VAC @ 5 A
230 VAC Power	150 (45)	230 VAC @ 0.5 A

INPUT AND OUTPUT

(QUANTITY IN PARENTHESES)	UM S02400 Small Enclosure	UML11500 Large Enclosure	UML23000 Large Enclosure
Digital Inputs	(8) dry-contact closures, 24 VDC, 10 mA		
Analog Inputs	(4) 4-20 mA signal with selectable power source of 12 VDC or 24 VDC		
Digital Outputs	(8) 24-VAC, 3-A		
Common Alarm Outputs	(2) 24-VAC, 3-A		

SPECIFICATIONS

	UM S02400 Small Enclosure	UML11500 Large Enclosure	UML23000 Large Enclosure
Power Requirements	24 VAC ±10% of nominal, 50/60 Hz, 1.3 A, 30 VA	115 VAC ±10% of nominal, 60 Hz, 4 A, 4600 VA	230 VAC ±10% of nominal, 50 Hz, 0.5 A, 115 VA
Dimensions, W x D x H	14-1/4 x 2-3/4 x 12 in. (361.95 x 69.85 x 304.8	18 x 2-34 x 18 in. (457.2 x 69.85 x 457.2 m)	
Weight (assembled)	7.68 lb (3.48 kg)	20.56 lb (9.33 kg)	
Enclosure Type	NEMA 1		
Liquid-crystal Display	4-line, 20-character, backlit		
Mounting Surface	Building wall or structural member		
Ambient Operating	32 to 104°F (0 to 40°C)		

MODEM/CLOCK

Modem Type	Embedded 14.4 K bps
Clock Type	Real-time
Clock Battery back-up type	Lithium cell (non-replaecable)
Clock Battery back-up life	7 years, constant, no power
Modem Battery back-up type	Nickel Cadmuim (replaceable)
Modem Battery back-up life	10 minutes at full load

COMMUNICATION

Local	EIA232
Remote: Modem	Baud rate: 9600 bps, Parity = None, Data bits = 8, Stop bits = 1
Remote: Support pagers	9600 E-7-1 supports TAPI protocol version 1.8
SiteScan Web	IGM protocol, EIA422
Expansion Board	EIA485

AGENCY LISTINGS

UL	UL3121	UL1012	UL1585
CE	Yes		
FCC Compliance	47 Part 15	N/A	

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