

# OPTICORE LS-XP

## I/O Point Expanders

The OEMCtrl® OptiCORE™ LS-XP expanders are capable of controlling HVAC equipment with high I/O point counts (up to 180) through expandable I/O boards. The OptiCORE I/O expanders deliver input and output capacity to the powerful OptiCORE LS-CPU controller.

Up to nine OptiCORE I/O expanders can be added to an OptiCORE controller. OptiCORE I/O expanders are designed for flexible panel configurations. They are DIN rail or screw-tab mountable and can be mixed and matched to meet the I/O requirements of the equipment being controlled.

The expanders can be mounted directly to the LS-CPU controller or remotely mounted up to 500' away.

## Key Features and Benefits

### Hardware Features

- Expands the OptiCORE LS-CPU processor to support up to 180 I/O points
- Backplane mounting via screw tab or DIN rail mounting
- Removable screw terminals for I/O connections
- Hand-Auto-Off switches on all output channels
- Software selectable input configuration - no jumpers
- Color-coated I/O and easy to read labeling minimizes wiring errors
- LEDs for each output for easy identification of output status whether configured as an AO or DO
- LEDs for status indicators for Power, Run, Error, Xnet TX and Xnet Rx

### OptiCORE LS XP812u



Part#	LSXP48u	LSXP812u	LSXP012u
Universal Outputs	4	8	0
Universal Inputs	8	12	12

OptiCORE  
L-CPU +  
LS-XP point  
expanders

Support for up to 9 I/O expanders (180 points)



# Specifications

Power	24 Vac $\pm$ 10%, 50-60 Hz, 50 VA, 26 Vdc $\pm$ 10%, 15 W, Single Class 2 source only, 100 VA or less	
Physical	Fire-retardant plastic ABS, UL94-5VA, Weight: 1 lb. 1 oz. (0.482 kg)	
Operating Range	-40° to 158° F (-40° to 70° C); 10 - 90% relative humidity, non-condensing	
Communication Ports	<b>IO Bus port:</b> Provides up to 2000 ft (610 m) communication for wired remote LS-XP expanders that are powered by external power supplies <b>IO Bus edge connector:</b> 6-pin connector that provides communication and power to a directly connected LS-XP expander	
Inputs	<b>LS-XP48u:</b> 8 inputs <b>LS-XP812u:</b> 12 inputs <b>LS-XP012u:</b> 12 inputs	Inputs software configurable for 0-5 VDC, 0-10 VDC, 0-20 mA, thermistor (5k, 10k Type II), 1k RTD (Platinum, Nickel, or Balco), and Dry Contact. Inputs are 16 bit A/D and support up to 40 pulses per second (12.5 msec min. pulse).
Outputs	<b>LS-XP48u:</b> 4 outputs <b>LS-XP812u:</b> 8 outputs	Outputs can be set as analog or binary outputs. Analog outputs can be used for 0-10 VDC, 0-20 mA (12 bit D/A). Binary outputs have a built-in relay and can be used to switch external devices or relays up to 1A, 30Vac/Vdc. HAO (hand/auto/off) switches are on each output, including potentiometers for manual adjustment of analog outputs.
Protection	Two fast acting, 5mm x 20mm glass fuses: <ul style="list-style-type: none"> <li>• A 2A fuse for the LS-CPU's power</li> <li>• A 4A fuse for the I/O bus edge connector</li> </ul> The power and network ports comply with the EMC requirements EN50491-5-2.	
Status Indicators	LEDs indicate status of communications, system state (running or errors), outputs, and power	
Compliance/Listing	<b>United States:</b> FCC compliant to Title CFR47, Part 15, Subpart B, Class A; UL Listed, File E143900; CCN PAZX, UL 916, Energy Management Equipment; <b>ANZ:</b> RCM Mark AS/NZS 61000-6-3; <b>Canada:</b> UL Listed File E143900, CCN PAZX7, CAN/CSA C22.2 No. 205 Signal Equip., Industry Canada Compliant ICES-003, Class A; <b>CE Mark</b> Compliant with 2014/30/EU, and <b>RoHS</b> Compliant: 2015/863/EU; <b>UKCA Mark</b> compliant with Electromagnetic Compatibility Regulations 2016 – Gov. UK and RoHS for Electrical and Electronic Equipment 2012.	



## I/O Expander Support

Up to 9 OptiCORE I/O expanders and/or 6 I/O Pro expanders, but no more than 9 expanders total supported on an LS-CPU.

OptiCORE LS-XP I/O expanders

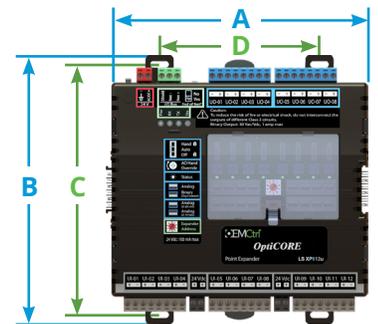
- LS XP812u
- LS XP48u
- LS XP012u

## Dimensions Overall

- A:** 6.9 in. (17.53 cm)
- B:** 6.95 in. (17.65 cm)
- Depth:** 2.09 in. (5.31 cm)
- Weight:** 1.0 lbs (0.45 kg)

## Screw Mounting

- C:** 6.45 in (16.38 cm)
- D:** 4.1 in. (10.4 cm)



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