

Local Product Controller 480 (LPC 480)

General Description

The LPC 480 is a TLACS luminaire local controller. It provides two-way communication between luminaires and the TLACS main controller. It is used to individually control and monitor luminaires. Specifically designed for 100 to 480 VAC installations, it can be embedded in a luminaire by the luminaire manufacturer or installed in a junction box.

The LPC 480 communicates over the power line (PL) using a proven and reliable protocol, thus greatly reducing installation, deployment, and operating costs.



Features

- Wide input range: from 100 to 480 VAC
- **New:** 277 VAC neutral loss detection for driver protection (PL10 model only)
- Two-way power line communication (without additional control wiring)
- Embedded power line filter and dynamic repeater function provide the optimum level of communication robustness
- Individual luminaire monitoring and controlling
- Voltage, current, power factor, power consumption, status, and alarm reporting
- Light loss compensation for luminaire light loss depreciation
- Configurable fail-safe mode (ON/OFF/DIM)
- Luminaire alternation function for average luminaire lifetime
- Control type: 0-10 V dimming, ON-OFF relay, and DALI
- Certified UL 916: UL Standard for Safety Energy Management Equipment.

Technical Specifications

Electrical Specifications

Item	Units	Min	Max	Comment
Input voltage (nominal), 100-480 VAC	VAC	100	530	Neutral loss protection with 277-VAC LPCs
Power Consumption	W	3 (typical)	4.5 (peak)	
Frequency (nominal) 50/60 Hz	Hz	50	60	
Load rating, 100-347 VAC	A	5 (steady-state)	450 (peak)	Pulse width @10%: 1.15 ms, cycles: 15000
Load rating, 480 VAC	A	2.5 (steady-state)	654 (peak)	Pulse width @10%: 0.908 ms, cycles: 25000

Interface Connections

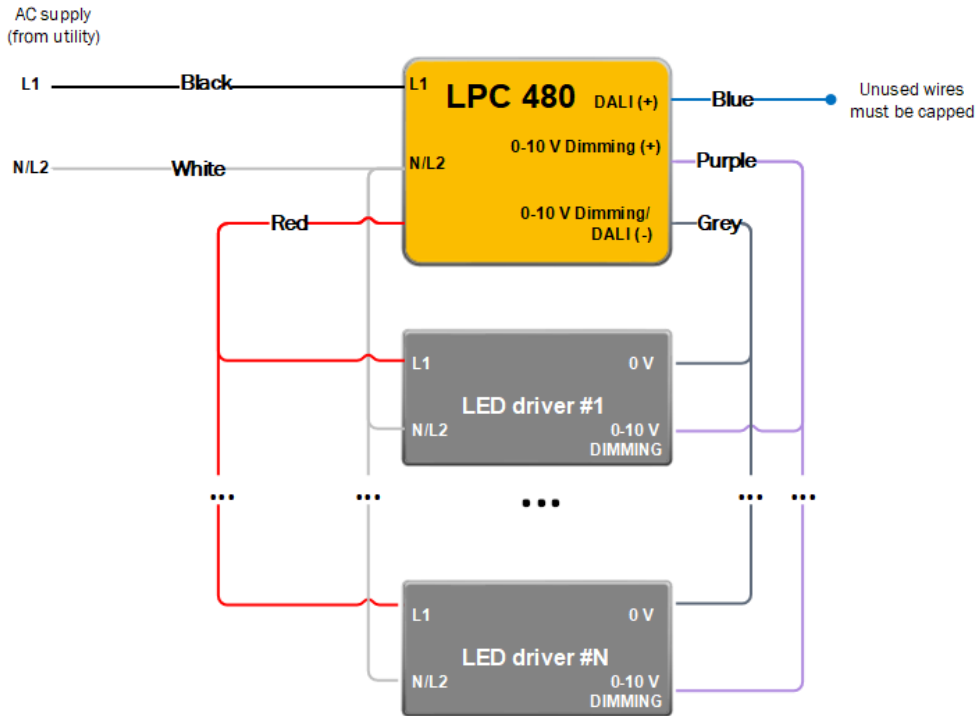
Item	Description
Analog interface	0-10 V dimming, maximum sink/source current: 10 mA
Digital DALI interface	Embedded DALI supply max 10 mA typical, up to 5 drivers, 2 mA max./driver

Environmental Conditions

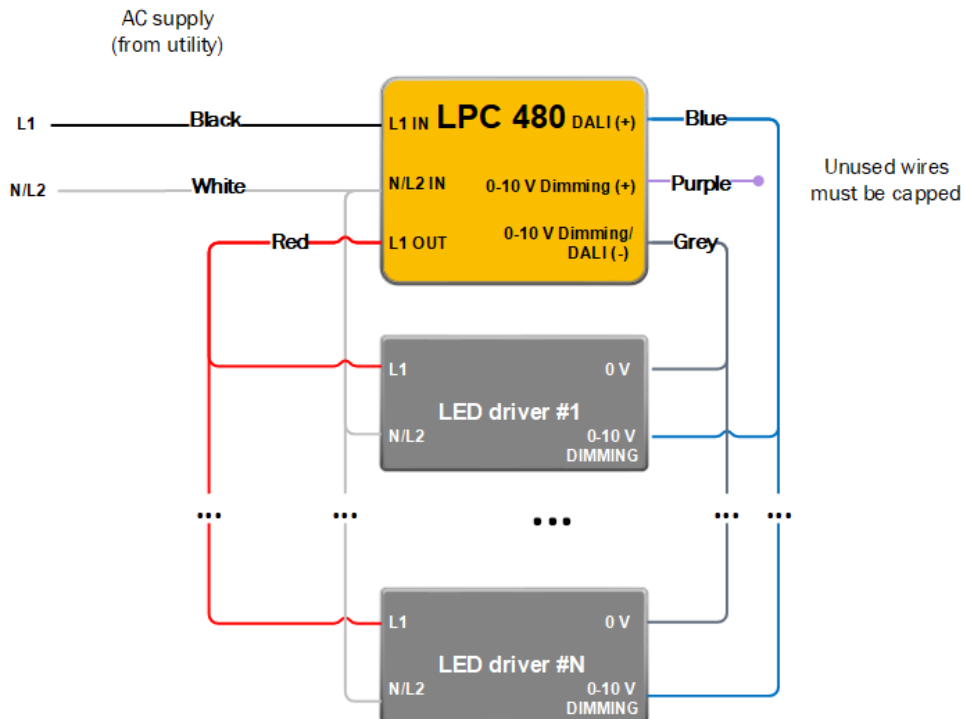
Item	Value
Operating temperature	-40 to 167°F (-40 to 75°C)
Storage temperature	-40 to 185°F (-40 to 85°C)
IP Rating	Open Type - for installation in a suitable enclosure

Wiring Diagram

0-10 V Dimming

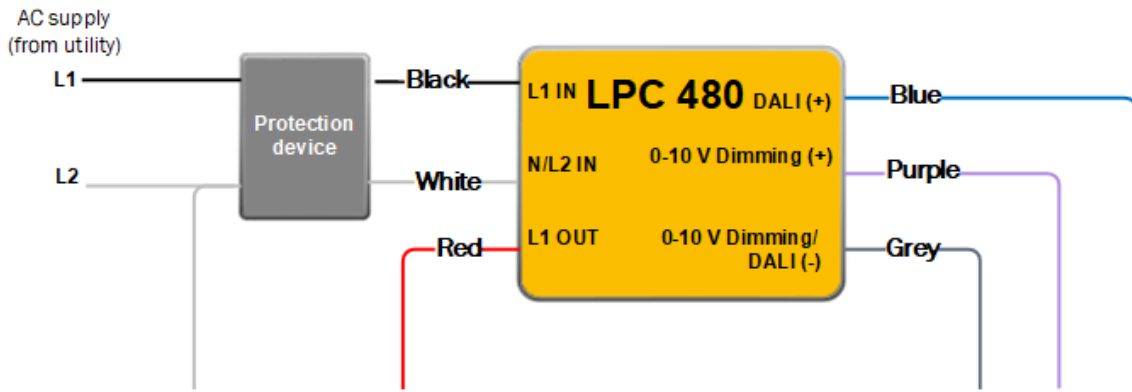


DALI Dimming



Note: When connected to 400-480 VAC, the LPC 480 shall be provided with two externals listed (Littelfuse or equivalent) type class CC fuses rated 5 A, 600 VAC or listed circuit breaker rated with the following specifications: D-curve or below, 2-poles, 15 A max, 277-480 VAC or better, UL 489 listed, or equivalent. The protection shall be located as follows:

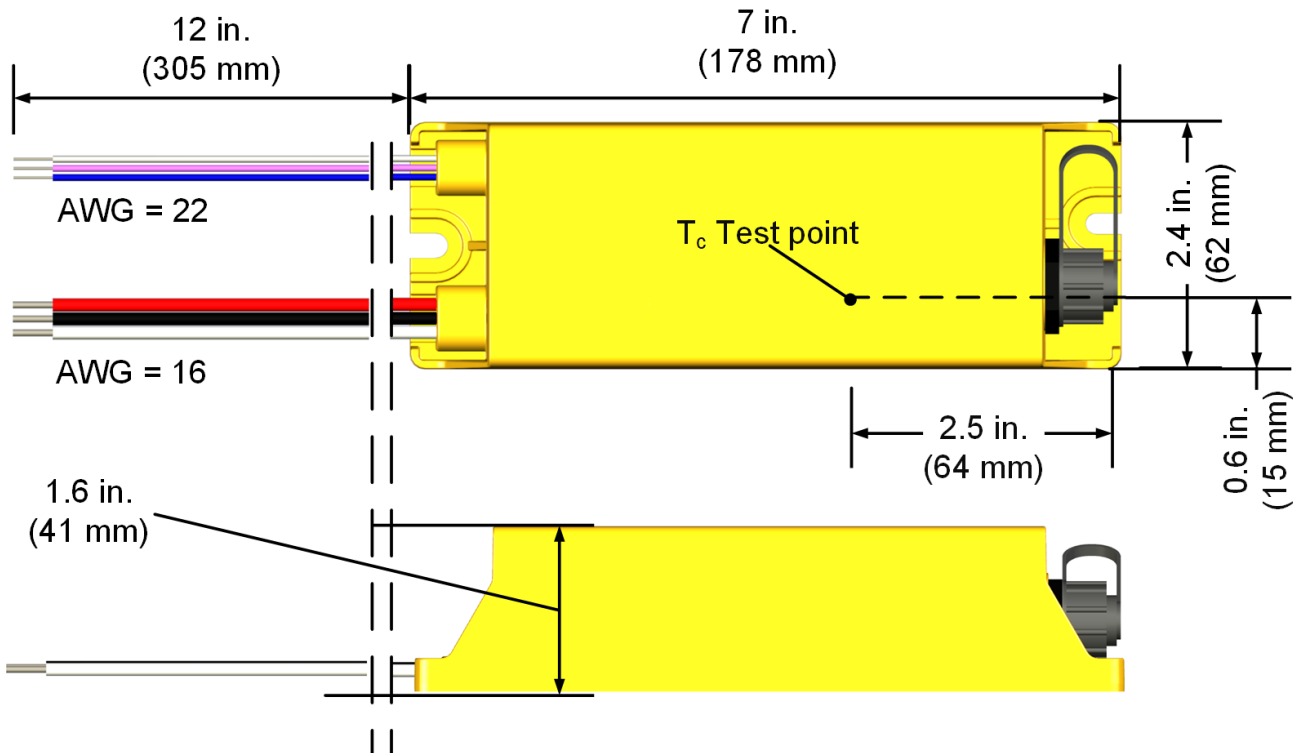
Input Wiring when Used with 480 V



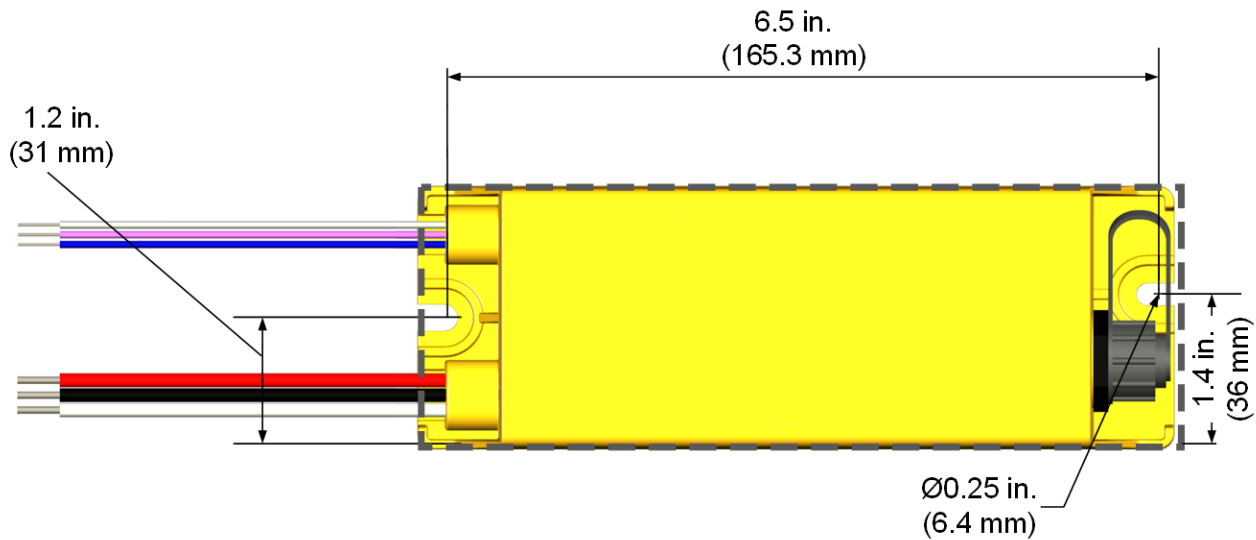
Mechanical Specifications

Dimensions

Overall (L x W x H): 7 in. x 2.4 in. x 1.6 in. (178 mm x 62 mm x 41 mm)



*Tc = Case temperature



Standards

Item	Description
Energy management	UL 916 UL Standard for Safety Energy Management Equipment.
Safety standards	CSA 60950-1-07 Second Edition UL 60950-1, Second Edition – Certified to U.S. Standards CAN/CSA C22.2 No. 0-M91 (R2001) CAN/CSA C22.2 No. 60950-1-07, 2nd Ed. Am 2:2014 (MOD) ANSI/UL Std No. 60950-1-2014, 2nd Ed. IEC 60950-1:2005 IEC 60950-1:2005/AMD1:2009 IEC 60950-1:2005/AMD2/2013
EMC standards	EN 55032 :2012/AC :2013 EN 61000-3-2 :2014 (Harmonics) EN 61000-3-3 :2013 (Flicker and voltage fluctuation) FCC 47 CFR Part 15, Subpart B ICES-003 Issue 6 January 2016
EMC immunity	EN 55024:2010 EN 61000-4-2 (Electrostatic discharge) EN 61000-4-3 (Radiated, radio frequency, electromagnetic field) EN 61000-4-4 (Electrical fast transient/burst) EN 61000-4-5 (Surge) EN 61000-4-6 (Conducted disturbances) EN 61000-4-11 (Voltage dips, short interruptions and voltage variations)

Product Ordering Information



Segment Name (Left to Right)	Segment Value	Description
Model	LPC	Local Product Controller 480
Communication interface	PL	Power line communication
Input voltage range	9	100-480 VAC input voltage
	10	277 VAC with neutral loss protection
	11	Replacement part for LPC-PL-x-A, where x = 1 to 7
Channel	1	1 channel (1 relay, filtered)
Luminaire interface	B	0-10 VDC/DALI
Features	0	Luminaire control/monitoring 2% accuracy meter
	1	Luminaire control/monitoring 0.05% accuracy meter
	2	Modem
	3	Photometer (monitoring and control)

- P/N for LPC Extended Warranty 5 additional years: LPC-EXT-W5

For more information, please do not hesitate to contact the Nyx Hemera team at info@nyx-hemera.com