

## Local Product Controller Twist (LPC Twist)

### General Description

The LPC Twist 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 100-480 VAC electrical installations, it must be installed in all luminaires equipped with a 5- or 7-pin twist lock socket (ANSI C136.41).

The LPC Twist 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 provides 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
- Optional built-in GPS to ease system commissioning and localization
- Built-in internal photocell for autonomous or fail-safe operation

## Technical Specifications

### Electrical Specifications

Item	Units	Min	Max	Comment
input voltage (nominal), for 100-480 VAC	VAC	90	530	Neutral loss protection on 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	4.7 (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

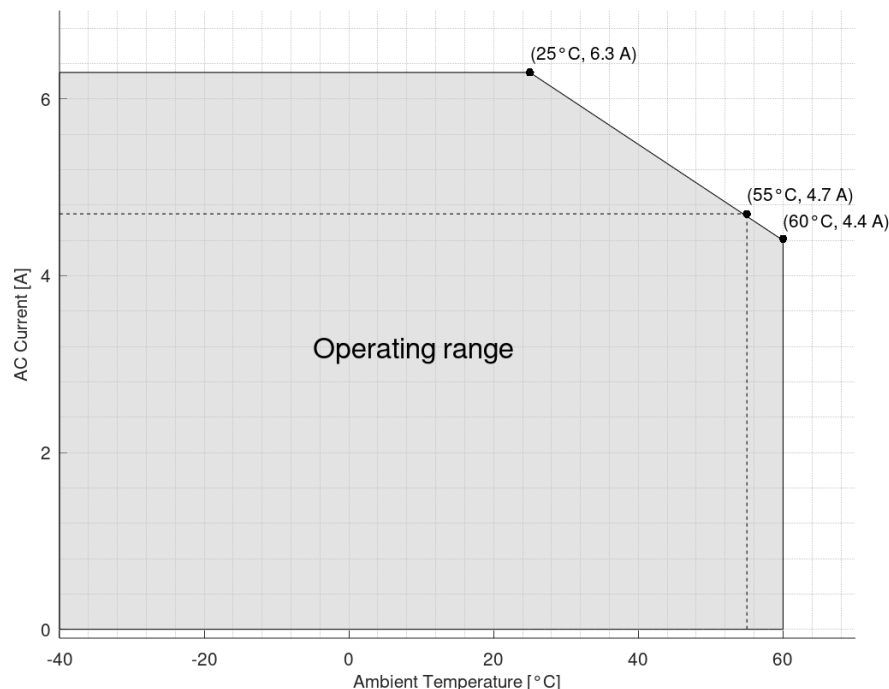
Item	Description
Analog interface	0-10 V dimming, maximum sink/source current: 10 mA
Digital DALI interface	Embedded DALI supply max 10 mA (typical), up to 5 drivers, 2 mA max./driver
Connector	Standard ANSI C136.41 with 7 pins

### Environmental Conditions

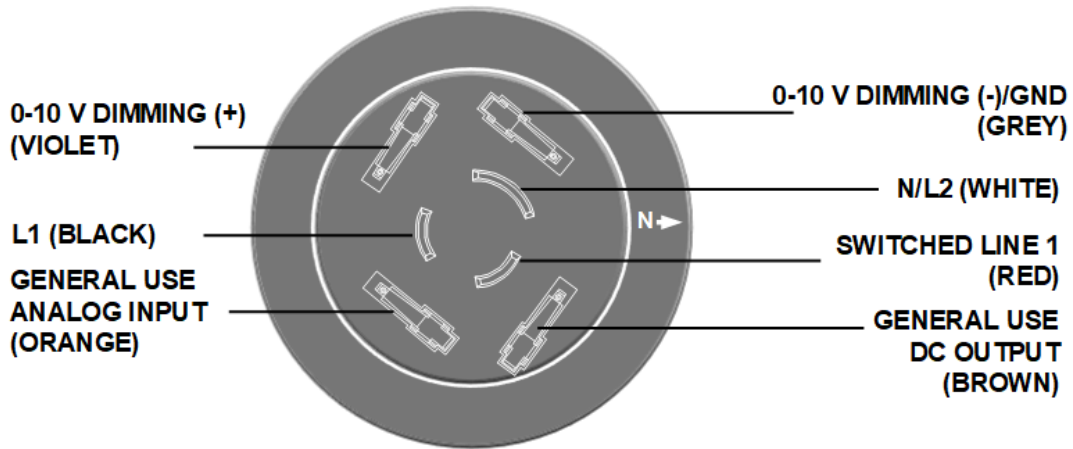
Item	Value
Operating temperature	-40 to 140°F (-40 to 60°C) *
Storage temperature	-40 to 185°F (-40 to 85°C)
IP Rating	IP 66, when mated to a mounted receptacle

\*According to derating curve.

### Load Current vs Temperature Recommended Derating Curve



## Wiring Diagram



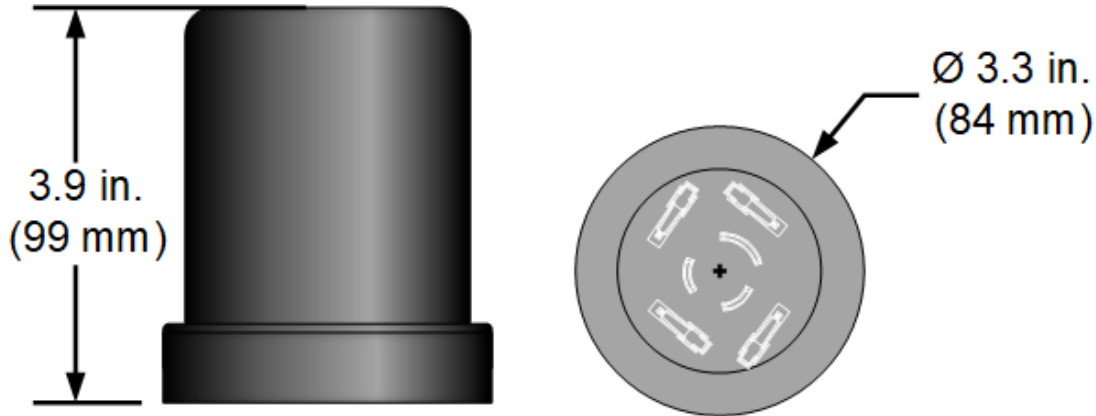
Source: ANSI C136.41-2013

### Feature Specifications

Item	Description	
Photocell	Typical turn on	1.5 fc (16 lux)
	Maximum turn-off	6 fc (65 lux)
Analog input	0-30 VDC	
DC output voltage	12 V (24 V available on request), 50 mA max	
GPS (offered as an option)	Accuracy: Typical ± 6 ft (2 meters) Maximum ± 16 ft (5 meters)	

### Mechanical Specifications

Overall (H x D): 3.9 in. x 3.3 in. (99 mm x 84 mm)



### Standards

Item	Description
Energy Management	UL 916 UL Standard for Safety Energy Management Equipment

## Product Ordering Information



Segment Name (Left to Right)	Segment Value	Description
Model	LPCT	Local Product Controller Twist
Communication interface	PL	Power line communication
Input voltage range	9	100-480 VAC input voltage
	10	277 VAC with neutral loss protection
Channel	1	1 channel (1 relay, filtered)
Luminaire interface	A	0-10 V luminaire interface
	D	DALI luminaire interface
Features	0	Luminaire control/monitoring 2% accuracy meter
	1	Luminaire control/monitoring 0.05% accuracy meter
Built-in GPS	0	Has no GPS
	1	Built-in GPS

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

For more information, please do not hesitate to contact the Nyx Hemera team at [info@nyx-hemera.com](mailto:info@nyx-hemera.com)