Transcend® PoE Gateway

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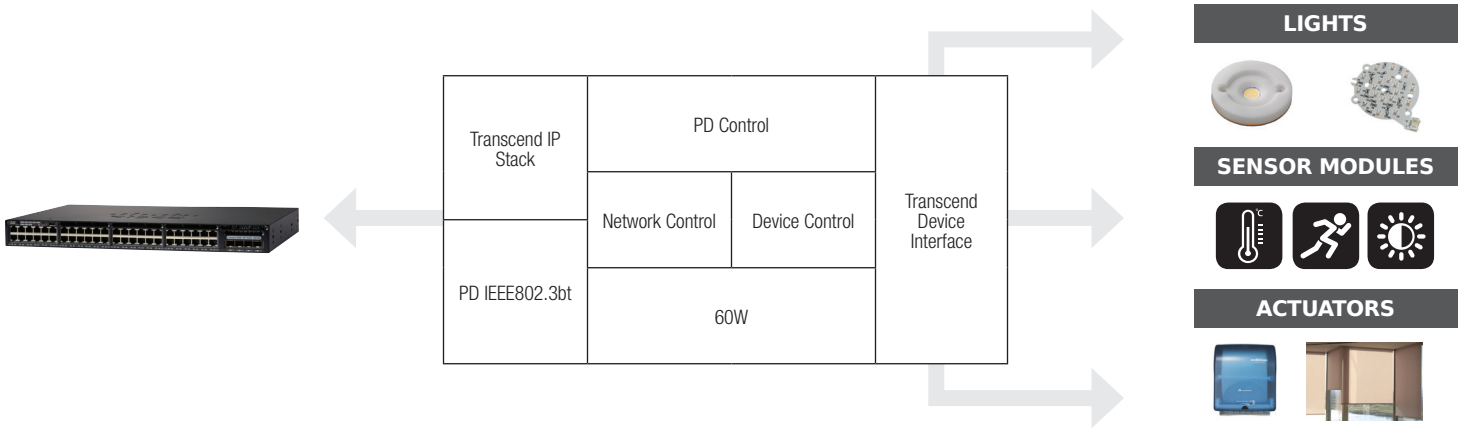
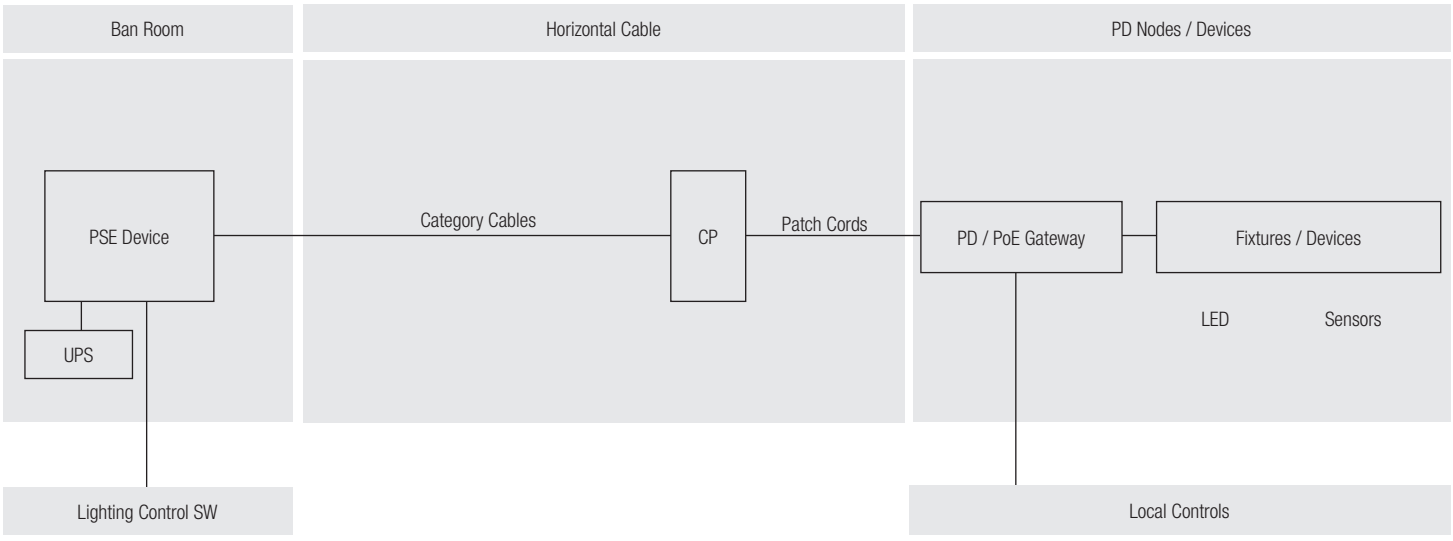
The Transcend PoE Gateway is a low voltage power distribution and network connected system that utilizes PoE technology. Each Gateway is connected to a Catalyst switch port with a Category Cable.

The Transcend Gateway is a Cisco Universal Power over Ethernet (UPoE) compliant device. UPoE extends the IEEE PoE Plus (PoE+) standard (IEEE802.3at) to double the power per port to 60 watts using four pairs. After power negotiation, a secure connection will be established between the gateway and the switch, the Node is then able to distribute power and data to lights, sensors and other devices locally. The network communication is based on CoAP and will allow an easy convergence of IP infrastructure securely thanks to Cisco technology. This way data and commands can be easily passed and integrated with other systems for data analytic needs in a real building automation control installation. On the device side, the gateway will provide power and data using a rugged and robust interface. The Transcend interface is optimized to deliver low voltage power and reliable communication with lights, sensors and other devices.

General Diagram PoE Gateway
Network Node and Device Power/Control Distribution Interface





Each Gateway requires 1 port from a catalyst switch. The gateway can then distribute power and data to the devices. The Transcend System requires the use of a Transcend Harness to connect the Gateway directly to the device/fixture or to the drivers/sensors modules. If the power requirement for a group of devices is below 50W, one single gateway can power and control multiple devices through a daisy-chain configuration. The case above illustrates the daisy-chain architecture for a low power LED fixture using transcend low voltage LED Drivers connected through a Transcend Harness.

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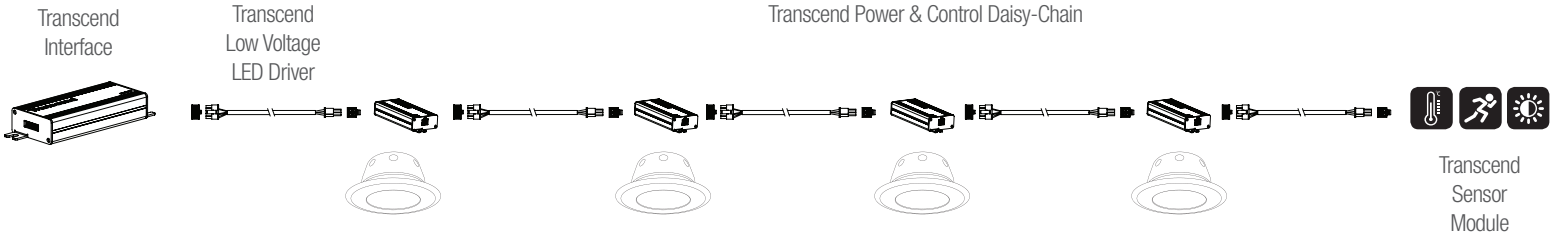
Application

To address an effective optimization for the overall system, the Transcend Gateway is provided in 4 different categories:

1. Gateway Voltage Output Unregulated: This product has constant voltage output to supply power to low voltage fixtures and devices. It can aggregate data from a Transcend sensor node, wall dimmers and other local controls. Can be used for general purpose, but also suitable to connect drivers, actuators and other devices.
2. Gateway Voltage Output Regulated: Single or dual constant voltage outputs with the option of regulated or programmable power to supply power to low voltage fixtures and other devices. It can aggregate data from a Transcend sensor node, wall dimmers and other local controls. Optimal for applications using Direct/Indirect Fixtures.
3. Gateway with integrated LED Driver: This product has Constant Current output to drive LED engine in a large variety of power range. It can aggregate data from the Transcend sensor node, wall dimmers and other local controls. With the option to be embedded or directly mounted on the lighting fixture, it is intended to drive directly the LED engine.
4. Gateway with wireless extension: With the wireless extension, the gateway can wirelessly control other fixtures and devices and aggregate data. It allows for the possibility to integrate high voltage, high power and special devices into the Transcend network, making them part of a centralized Transcend IP network control system. It also offers the possibility to control other AC or DC nodes such as Relays, Valves, Switches and Drivers.

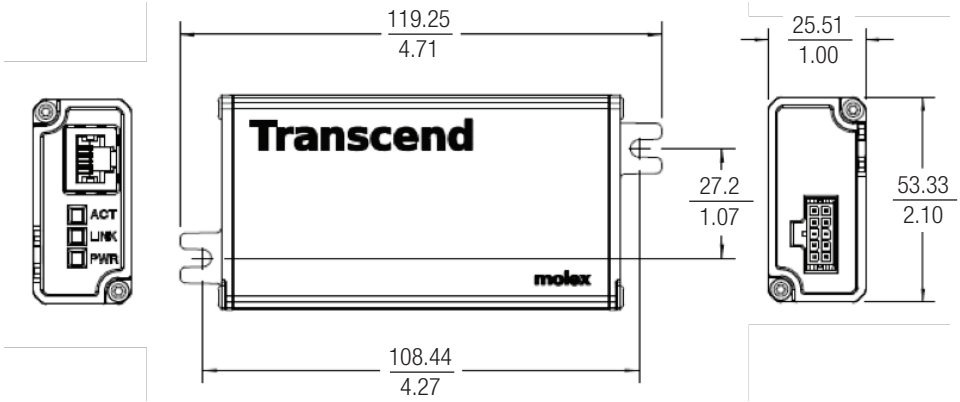


Transcend Gateway Output Diagram Case for Daisy-Chain of LED Fixtures and Transcend Sensor modules

Specifications

MECHANICAL
Length: 119.65mm
Width: 53.33mm
Height: 25.51mm
Product Weight: 100g

ENVIRONMENT
Ambient temperature range: 0 to +50°C
Max. operating temperature: 70°C
Storage temperature range: -25 to +85°C
Relative humidity: 10 to 80%
Environmental rating: indoor



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Electrical Data

Input/Output to Catalyst Switch: RJ-45

Nominal Power Input 60W

UPoE IEEE802.3bt (compatible with PoE/PoE+)

Standby Power Consumption 0.5W

Class II electrical device

UL2108

Made in USA

Input/Output to Device: Micro-Fit 3.0™ connector 10 pin

Nominal Power Output 50W

Light Interface: CV or CC depending on the model

Sensor Interface: Transcend Bus

Actuator Interface: Transcend Bus

PoE Gateway Family

Order No.	Description	Input	Max Output Power (W)	Output Voltage (V)	Aux OutPut Voltage (V)	Embedded LED Driver	Output Current (mA)	Sensor Interface	Wall Dimmer Interface
1809993-0001	Gateway Voltage Output Unregulated	IEEE802.3at/bt	25/50W	42 - 56V Unregulated	5V	NO	N/A	Transcend 10 pin Micro-Fit 3.0 Connector	0 - 10V
1809993-1000	Gateway Voltage Output Regulated			12 - 40V Settable	N/A	NO	N/A		
1809993-2000	Gateway with Embedded LED Driver		15/20/30/40W 9/13/18/26W	N/A	5V	24 - 40V LED Vf 16 - 26V LED Vf	350/500/700/1000 mAH		
1809993-3000	Gateway to Wireless		N/A	N/A	N/A	NO	N/A	Wireless	Wireless

Voltage Output Unregulated	Voltage Output Regulated	Constant Current Output	Data Wireless Gateway (EnOcean®)
			
LED Drivers, Actuators, Sensors Nodes, Low Voltage Loads	LED Drivers, Actuators, Sensors Nodes, Low Voltage Loads	LED Engines, Sensors	Self Powered Wall Switches, Sensors, Dimmers, Relays
LED Fixtures With DC/DC Driver. Dispensers, Motorized Shades Daisy Chain	Direct/Indirect LED Fixtures, Task Lights, Linear Fixtures, Led Modules	LED Fixtures Without Cc Regulation	Self Powered Local Controls, Wireless Sensors, Relays, AC/DC Fixtures
Aluminum Anodized Silver With Black End Caps	Aluminum Anodized Silver With Grey End Caps	Aluminum Anodized Black With Black End Caps	Aluminum Anodized White With Grey End Caps

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