

POWERLINE – OLC150/154 / SEGMENT CONTROLLER SC1

- Suitable for all luminaire types
- Widely applicable and expandable
- Nodes built into the luminaires or at the bottom of the lamppost
- No antenna required
- LonWorks® technology



The Powerline system

A powerline system uses data communication via the electricity grid. Communication takes place via the power cable that connects the lamppost to the mains.

The Powerline system consists of the outdoor lamp controller OLC150 or OLC154 and the Segment controller SC1. The Segment Controller SC1 manages the network of OLCs. The Segment Controller is placed in the power supply box to manage and control the OLCs. Luminizer communicates with the OLCs via the Internet and the segment controller and vice versa.

Powerline communication is very reliable, partly due to the "heart beat" function that regularly repeats the last command given. Because every OLC has a repeater function, there is no limit to the distances within the Powerline system. About 200 OLCs can be linked to a Segment Controller SC1.

OLC 150 (SL-21) / OLC154 (SL-31)

The OLC 150 is suitable for almost all common EVSA's and LED drivers with a DALI or 1-10V interface. This OLC communicates with the Segment Controller SC1 over the existing electricity network based on the LonWorks® technology. The OLC150 can be built into almost all luminaires, or if desired, at the bottom of the lamppost.

The OLC154 is almost identical to the OLC150. The difference is that the OLC154 is equipped with a relay to switch the power supply. The OLC154 can control more than 2 DALI drivers individually.

Segment Controller SC1

The Segment Controller SC1 is placed in the cabinet. In the segment controller, the OLCs are created as objects and then divided into dimming groups in Luminizer. A dimming schedule is set for each dimming group, and based on this dimming schedule and the astronomical clock the lighting is dimmed and switched. The segment controller locally follows the dimming scheme, which does not require a continuous connection to the Luminizer management & control software.

The Segment controller SC1 requests the following information from the OLC and sends it to the Luminizer platform:

- Operating hours
- The set and actually followed dimming schedule
- The energy measurement, power, temperature, cos phi.
- DALI status information of lamp and driver

The segment controller SC1 has 2 digital inputs and 2 outputs. These are used, for example, to switch the lighting and the manual off-automatic switch. The segment controller has a ModBus interface with which external IO can be read and controlled, for example for a link with a PLC installation, weather and traffic systems or a light measuring cell.

POWERLINE – OLC150 OUTDOOR LAMP CONTROLLER

Model	OLC150	OLC150-DI-D	OLC150-DI-A
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ELECTRICAL DATA

Mains Supply	88 to 265 VAC / 50 to 60Hz
Max Lamp Power	300W (2A)
Power Consumption	< 1W
Safety	Class II

HOUSING

Material	Self-extinguishing thermoplastic V0
Protection	IP2x
Wiring	0.2 to 3 mm ² max single wire
Dimensions	84.1 x 20.1 x 36.6mm (l x w x h), excluding connectors
Weight	90 grams

ENVIRONMENT

Temperature	-25°C to +60°C
Relative Humidity	0% to 95%

FEATURES

Dimming Interface	DALI, IEC 62386, support 2 independent drivers. Analog 1-10V linear	DALI, IEC 62386, support 2 independent drivers	Analog 1-10V linear
Digital Input	None	Voltage free contact	Voltage free contact
Relay	None		
Measurements	Integrated measurement of U, I, Power factor and Temperature		

COMMUNICATON

PLC Communication	PLC C Band C – CENELEC EN50065-1 (4800 bauds)
PLC Protocol Software	ISO/IEC 14908 LonTalk® protocol

ORDER INFORMATION

Product number	10.10.150 Luminyx OLC150 PLC 10.10.151 Luminyx OLC150 DI-D PLC 10.10.152 Luminyx OLC150 DI-A PLC
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POWERLINE – OLC154 OUTDOOR LAMP CONTROLLER

Model	OLC154	OLC154-DI-D	OLC154-DI-A
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ELECTRICAL DATA

Mains Supply	88 to 265 VAC / 50 to 60Hz
Max Lamp Power	600W (3A)
Power Consumption	< 1W
Safety	Class II

HOUSING

Material	Self-extinguishing thermoplastic V0
Protection	IP2x
Wiring	0.2 to 3 mm ² max single wire
Dimensions	91.6 x 36.0 x 65.0mm (l x w x h), excluding connectors
Weight	190 grams

ENVIRONMENT

Temperature	-25°C to +60°C
Relative Humidity	0% to 95%

FEATURES

Dimming Interface	DALI, IEC 62386, support 4 independent drivers	DALI, IEC 62386, support 2 independent drivers	Analog 1-10V linear
Digital Input	None	Voltage free contact	Voltage free contact
Relay	3A max - inrush current 30A		
Measurements	Integrated measurement of U, I, Power factor and Temperature		

COMMUNICATON

PLC Communication	PLC C Band C - CENELEC EN50065-1 (4800 bauds)
PLC Protocol Software	ISO/IEC 14908 LonTalk® protocol

ORDER INFORMATION

Product number	10.10.154 Luminyx OLC154 PLC 10.10.155 Luminyx OLC154 DI-D PLC 10.10.156 Luminyx OLC154 DI-A PLC
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POWERLINE – SC1 SEGMENT CONTROLLER

Model	SC1
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ELECTRICAL DATA

Mains Supply	100 – 240 VAC / 50 to 60Hz
Power Consumption	< 15W

HOUSING

Material	Self-extinguishing thermoplastic V0
Protection	IP2x
Wiring	Screw terminals 0.2 to 3 mm ² max single wire
Dimensions	138 x 89 x 66mm (l x w x h), excluding connectors
Weight	450 grams

ENVIRONMENT

Temperature	-40°C to +80°C
Relative Humidity	10% to 90% RH@60°C

FEATURES

Digital Input	2 optically isolated dry contact inputs, 30V AC/DC
Relay Output	2 SPST relays rated at 240VAC @ 10A or 24VDC @ 10A
Impulse meter inputs	2 pcs DIN 43 864 (open terminal voltage ≤12VDC max; max current ≤ 27mA)
Serial Ports	1 EIA 232 port 1 EIA-485 port
Ethernet	1 RJ-45 port, 10/100BaseT, auto-selecting, auto polarity

COMMUNICATON

PLC Communication	PLC C Band C – CENELEC EN50065-1 (4800 bauds)
PLC Protocol Software	ISO/IEC 14908 LonTalk® protocol

ORDER INFORMATION

Product number	20.10.100 Luminyx SC1 PLC Segment Controller 21.10.100 Luminyx CC1 Communication Coupler
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INFORMATION

ORDER INFORMATION

Product	Product number
OLC150	10.10.150
OLC150 DI-D	10.10.151
OLC150 DI-A	10.10.152
OLC154	10.10.154
OLC154 DI-D	10.10.155
OLC154 DI-A	10.10.156
Segment Controller SC1	20.10.100
Communication Coupler CC1	21.10.100

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