PHILIPS
dynalite

EnvisionGateway

Connected Lighting

Installation Guide

EnvisionGateway

10/100BaseT Ethernet Network Gateway

EnvisionGateway is a dedicated hardware bridge designed to link network segments together, using the internet or LAN. EnvisionGateway provides a multipurpose Ethernet connection for Philips connected lighting control systems. It provides bridging functionality between an Ethernet trunk and a DyNet RS485 spur or between an Ethernet trunk and an Envision PoE subnet.

The device supports IPv4 and IPv6 protocols, with static or DHCP assigned IP addressing. Routing Mode links multiple EnvisionGateway's together in point to point or broadcast modes. An integral webserver allows Browser based control scenarios. The interface incorporates a Task Engine that can process comprehensive conditional and sequential logic and arithmetic functions.

Installation

1. Ensure the DC Power supply and the DyNet network are both de-energized before terminating.
2. Select an appropriate mounting location indoors. Mount the device and power supply as required by local wiring rules. To mount the device on DIN rail, slide the four DIN clips at the bottom of the device downwards with a screwdriver. Click the device onto the rail and slide the clips back into place. For surface mounting, use the pull-out DIN clips as mounting tabs.
3. Strip-off around 30 mm (1.18") of cable outer insulation jacket
4. Apply a layer of wide insulating tape to cover the remaining cut area and approx. 20mm 20 mm (0.78") of used wires length shall be left exposed for termination.
5. Strip and terminate power supply wires to Supply IN terminal of EnvisionGateway. Ensure correct polarity. Strip and terminate DyNet port wires as required.
6. Where used, AUX dry contact input wiring should be less than 10m (33') and segregated from mains supply, as other SELV wiring (recommended > 100mm (3.93") clearance). Use of twisted pair wires is recommended to minimize noise coupling.
7. Ensure wires are segregated and fully inserted with no exposed copper outside terminals to prevent shorts.
8. Connect Ethernet Cable.
9. Energize supply and network and ensure correct operation. If programming is required use a PC with EnvisionProject Software.

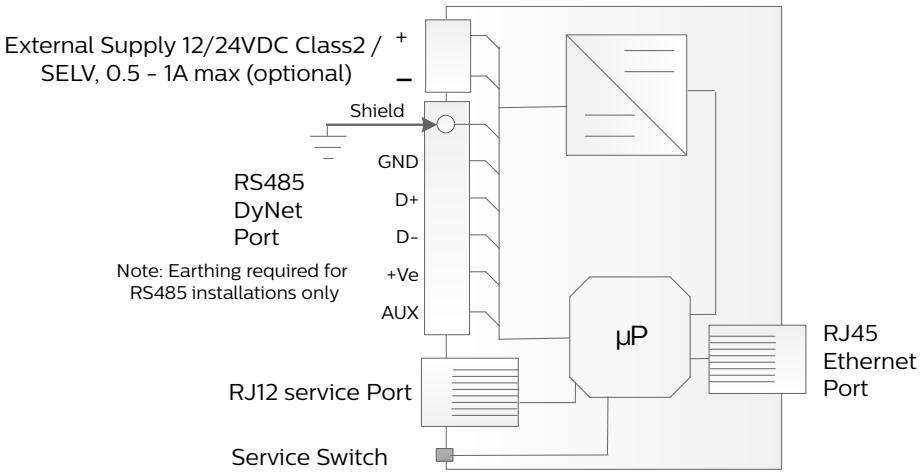
Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: • Reorient or relocate the receiving antenna. • Increase the separation between the equipment and receiver. • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. • Consult the dealer or an experienced radio/TV technician for help. This Class B digital apparatus complies with Canadian ICES-003

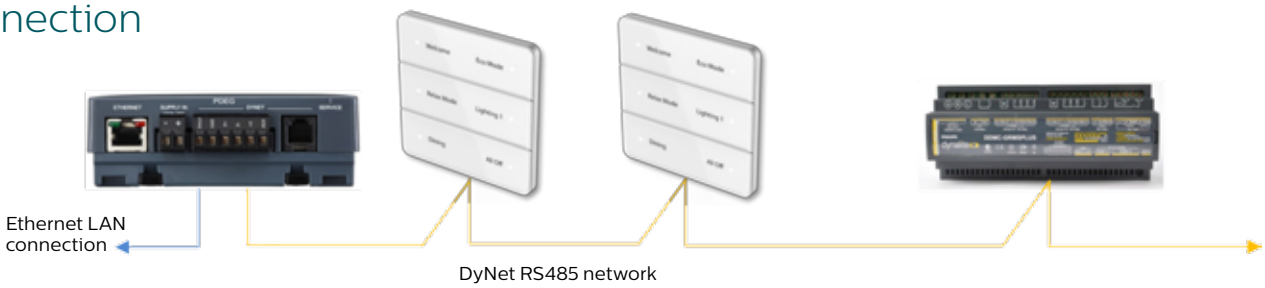
Warnings

- We recommend that you read all of these instructions prior to installation.
- Installation must be done in accordance to the local wiring code (or wiring rules).
- Installation of the home and building automation and control system shall comply with HD60364-4-41
- It is recommended that an electrician perform this installation.
- To reduce the risk of fire or electric shock and to avoid damage to the unit, before installation or servicing, disconnect wires and unplug network connections and device power at circuit breakers or remove fuses.
- Do not connect DyNet or Ethernet to mains.
- DyNet and Ethernet networks are SELV / Class 2 and they must be isolated and segregated from mains and other wiring and installed per local wiring rules. This is a Class 2 device and must only be connected to Class 2 wiring. Use Class 2 approved power supplies only.
- Do not expose this device to rain or moisture. Connect the cable shield to the provided shield termination on a device connection port.RS485 cable shield must be earthed by terminating the to the nearest grounding conductor of the supply branch circuit. Installation, programming and maintenance must be carried out by qualified personnel.
- Check Connections: Check and tighten all screw connections prior to energizing the device.
- Power Sources: This device should only be operated from the type of supply specified.
- Mounting Location: Install in a dry, well-ventilated indoor location.
- Data Cable: Use screened stranded RS485 data cable with three twisted pairs. Segregate from mains cables by 300mm (11.81") minimum. Connect devices in a 'daisy chain'. Do not cut or terminate energized data cables. Network shield terminal must be earthed on at least 1 point on the network as per EIA485 requirements. Current carrying capacity of data cables shall be at least equal to the total current limitation of the connected power supplies.
- Special Programming: Once powered and terminated correctly this device will operate in a pre-determined configuration. This device is commissioned using EnvisionProject PC software from Philips.

Electrical diagram



Network connection



Product specifications

Supply ratings:	Dual supply option: • 12/24 Vdc from an external regulated SELV/Class 2 Power Supply. Max. 100mA @ 12V plus DyNet load, max. 50mA @ 24V plus DyNet load • 12/24 Vdc from DyNet (with no external PS connected). DyNet load max. 100mA @ 12V, max. 50mA @ 24V. Allowed supply ripple max. 1Vpp
Communication ports	1 x RS485 DyNet serial port and 1 x 10/100BaseT Ethernet port
Supported ethernet protocols	TCP/IP (TCP & UDP), HTTP, FTP, Telnet, Encryption: AES - 256 bit
Storage capacity	16 MB for XML file storage plus up to 16GB micro SD-Card for logging and web page support
DyNet DC supply	Max. 200mA contribution to the Network (when powered from an external power supply)
Supply terminals	1 x 2 pole 5mm pluggable screw terminal (- , +), 1 x 2.5mm^2 max. conductor size per pole DyNet RS485: Shield, GND, D+, D-, +V, AUX , 1 x RJ12 DyNet Service socket
Serial port terminals	RJ45 socket (Ethernet), pluggable 6 pole terminal (DyNet - 1 x 2.5mm^2 conductor size per pole), RJ12 socket (DyNet)
User controls	Service Switch, Service LED, 100BT status LEDs
Diagnostic functions	Device Online/Offline status
Compliance	CE, C-Tick, UL, FCC, ICES
Operating environment	-5C to +50C (23F to 122F), 0-90% RH non-condensing
Transport and storage conditions	-25C to +70 C (-13F to 158F), 0-90% RH non-condensing
Construction	Low Profile Din Rail Polycarbonate (6 unit), UL94-V0 rated
Dimensions	H 97mm x W 110mm x D 39mm (3.8" x 4.3" x 1.5") Note: Pluggable terminal connectors will add 9mm (0.35") to the total height
Weight	Packed weight 0.21kg (0.46 lbs)

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