



# DDNG485

RS-485/DMX512 Gateway

## Flexible network communications gateway

The Philips Dynalite DDNG485 is a flexible network communications bridge designed for RS-485 networks. The two optically isolated RS-485 ports enable the DDNG485 to implement a trunk and spur topology on large project sites, with the bridge providing a high-speed backbone optically coupled to many lower-speed spurs.

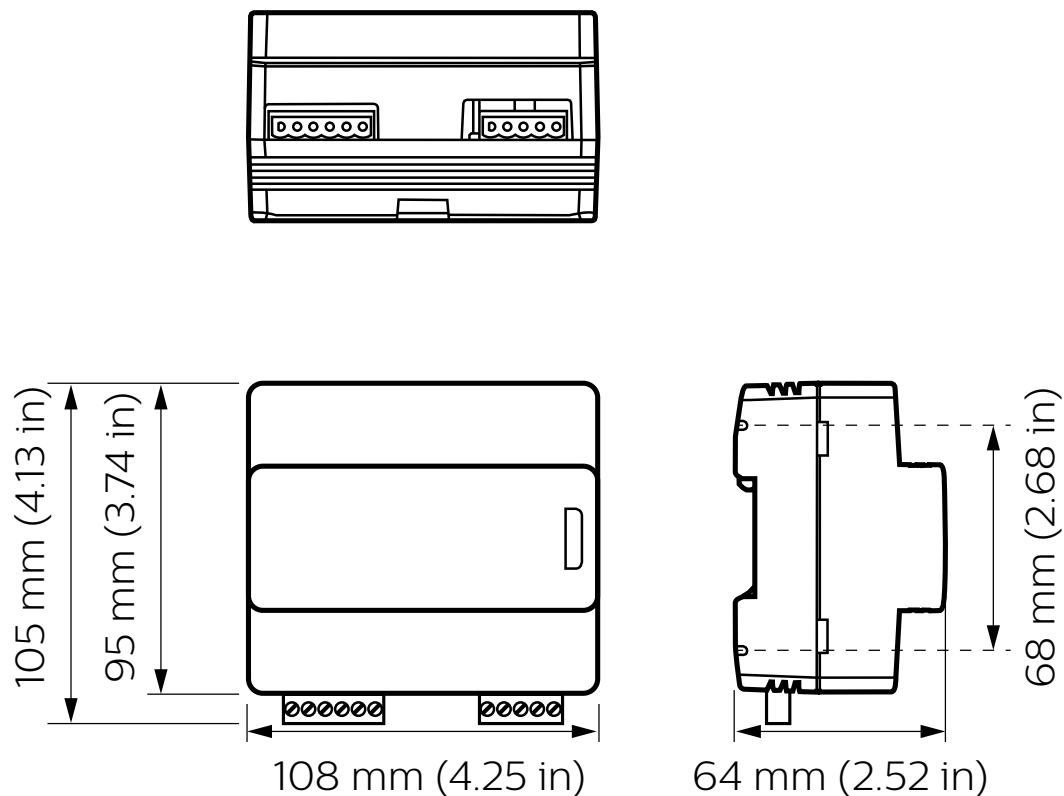
# DDNG485

## Flexible network communications gateway

- **Route DyNet to third-party systems** – Such as audio-visual, Modbus meters, and building automation systems, providing an integrated approach to total building control and energy management.
- **DMX512 mode** – Transmit or receive up to 512 channels of DMX with automatic DyNet conversion and task triggering. Provides temporary control of house lights from the DMX console in an auditorium scenario.
- **Electrical fault isolation** – Faults can be isolated to individual network spurs.
- **Internal controls** – Programmable logic controller capable of comprehensive conditional and sequential logic and arithmetic function processing, packet filtering, and DyNet to DyNet 2 translation.
- **Flexible mounting solution** – DIN rail mountable, designed to be installed into a distribution board or other electrical enclosure.

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## Dimensions



# Specifications

Due to continuous improvements and innovations, specifications may change without notice.



**DDNG485**  
RS-485/DMX512 Gateway

## Electrical

|                               |  |
|-------------------------------|--|
| Supply Voltage (DyNet Port 1) | 12-24 VDC<br>SELV / Class 2 (UL)   |
| Supply Current                | 70 mA + (1.6 x DyNet Port 2 load current) @ 12 VDC<br>60 mA + (0.7 x DyNet Port 2 load current) @ 24 VDC |
| Serial Port Isolation         | Optical (3.75 kV RMS)  |
| Output Voltage (DyNet Port 2) | 12 VDC   |
| Output Current                | 200 mA (max)<br>SELV / Class 2 (UL)  |
| IEC Overvoltage Category      | III  |

## Control

|                      |  |
|----------------------|--|
| Communication Ports  | <b>Port 1:</b> RS-485 (9,600- 115,200 bps)<br><b>Port 2:</b> RS-485 (9,600- 250,000 bps) |
| Supported Protocols  | <b>Port 1:</b> DyNet<br><b>Port 2:</b> DyNet, DMX, Modbus                                |
| DMX Tx/Rx Channels   | 512  |
| Dry Contact Inputs   | 1 x AUX<br>SELV / Class 2 (UL)   |
| User Controls        | 1 x service switch   |
| Indicators           | 1 x service LED  |
| Diagnostic Functions | Device online/offline status   |

## Physical

|                                       |  |
|---------------------------------------|--|
| Dimensions (H x W x D)                | 95 x 108 x 64 mm (3.74 x 4.25 x 2.52 in)                                 |
| Packed Weight                         | 0.22 kg (0.49 lb)  |
| Construction                          | G3.1-style plastic DIN rail enclosure (6 unit)                           |
| Communication Ports                   | 1 x 6-way pluggable screw terminal<br>1 x 5-way pluggable screw terminal |
| Communication Terminal Conductor Size | 0.3 - 2.5 mm <sup>2</sup> (22 - 12 AWG)                                  |

## Environment\*

|                               |                                      |
|-------------------------------|--------------------------------------|
| Operating Temperature         | 0° to 50°C ambient (32° to 122°F)    |
| Storage/Transport Temperature | -25° to 70°C ambient (-13° to 158°F) |
| Relative Humidity             | 0 to 90% non-condensing              |
| IEC Pollution Degree          | II                                   |

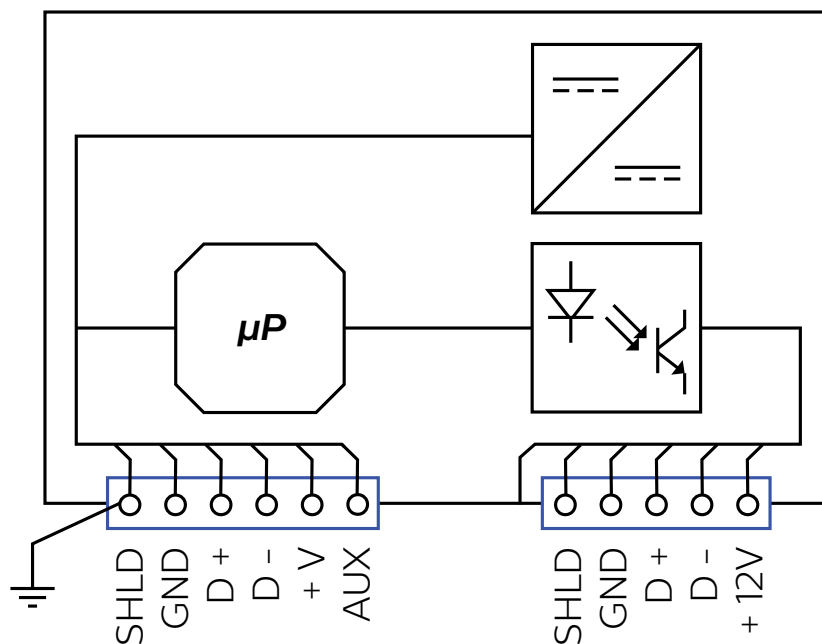
## Compliance


|               |  |
|---------------|--|
| Certification | CE, RCM, UL/cUL, FCC, ICES, UKCA, RoHS |
|---------------|--|


\* Install in a dry indoor well-ventilated location only  
Minimum 45 mm top and bottom clearance



## Electrical




 70 mA + (1.6 x DyNet Port 2  
load current) @ 12 V ===  
 60 mA + (0.7 x DyNet Port 2  
load current) @ 24 V ===

 12 V == 200 mA

SELV/Class 2 (UL)

## Ordering Code

| Product | Philips 12NC |
|---------|--------------|
| DDNG485 | 913703366709 |



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