# DDNG-KNX

Network Gateway
Installation Manual

## features

- **Powered From The DyNet Network** - Mains supply not required

- **Optically Isolated between the two communication Ports** – 2.5KV surge isolation.

- **Allows KNX integration to Philips Dynalite lighting control system**

- **Powerful Internal PLC -** Custom scripts can be written to provide process control based on conditional logic.

**Warning** – This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
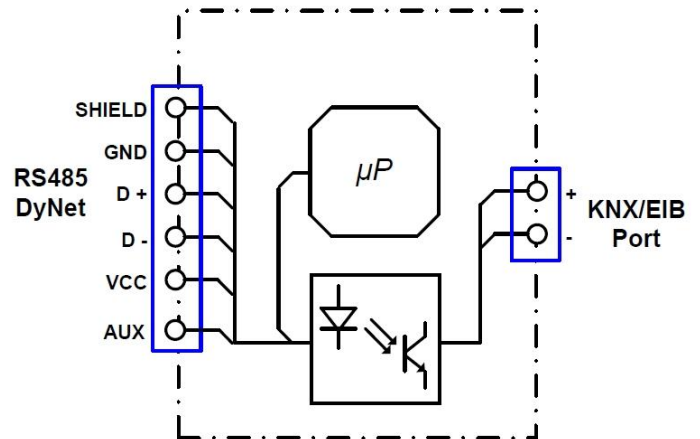
**Read Instructions** – We recommend that you read this Instruction Manual prior to commencement of installation.

**Special Programming** – This device will only operate in basic modes unless programmed via a computer. If programming is required, contact your local agent for details. Once the data cable is connected to the devices, the factory default settings will allow any control panel to operate all channels in all controllers.

**Mounting Location** – Install in a dry, well-ventilated location.

**Data Cable** – Use screened, stranded RS485 data cable with three twisted pairs. Segregate from mains cables by 300mm. Connect devices in a 'daisy chain'. Do not cut or terminate live data cables.
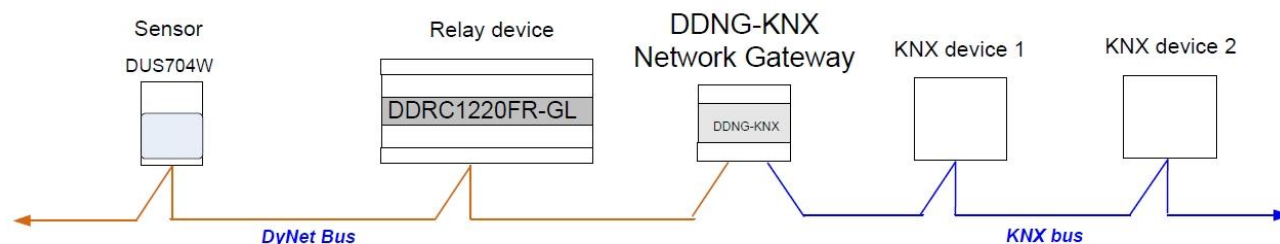
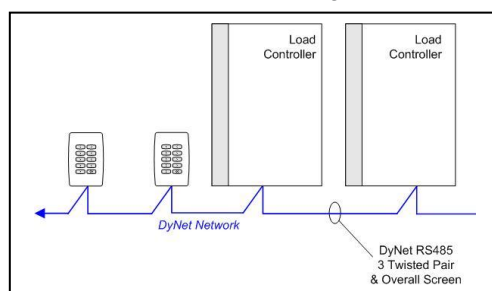## electrical diagram



## installation steps

1. Mount the device on a DIN rail inside an appropriate enclosure.

2. Ensure the both Dynet and KNX networks are powered down before beginning termination

3. Connect data cables to the device as per diagrams. Note that the device is powered from the DyNet network segment that is connected to Port 1.

4. Connect KNX network to second port of gateway.

5. Power up both Dynet and KNX networks.

6. The gateway is now ready to be commissioned.
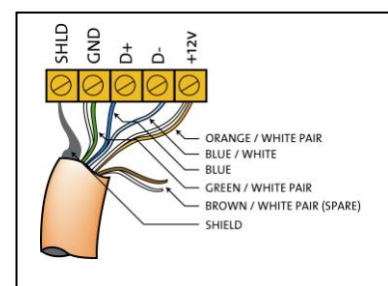
# example net work topology



# connecting data cable for Dynet

**Connect Data Cable in a 'Daisy Chain'**



**Serial Cable Permanent Connections**



## recommended cable colour coding

| | |
|---|---|
| **Green/White Pair** | paralleled for GND |
| **Orange/White Pair** | paralleled for +12V |
| **Blue/White Pair** | Blue for DATA+ |
| | White for DATA- |

\* If using unshielded cable, parallel the brown pair for Shield

## recommended cable types

| | | | |
|---|---|---|---|
| Belden: | 9503 | M&M Cable: | B2003CS |
| Dynalite | DYNET-STP-CABLE | M&M cable: | B9503CS |
| Garland: | MCP3S | Multicables: | AWME120236209220 |
| Hartland: | HCK603 | RS Components: | 368-687 |

# product specifications

| | |
|---|---|
| **RS485 Serial Port 1:** | 1 x RS485 consisting of 1 x 6 way terminal block |
| **KNX Serial Port 2:** | 1 x KNX consisting of 1 x 2 way terminal block |
| **Serial Port Isolation:** | Opto Isolated to 2.5KV Surge |
| **User Controls:** | Service Switch, Diagnostic LED for Dynet and KNX network |
| **Internal Controls:** | Programmable Logic Controller, 64 Tasks |
| **Operating Environment:** | 0º to 40ºC ambient temperature, 0% to 90% RH non condensing |
| **Power Consumption:** | 50mA from the DyNet network at 12VDC |
| **Compliance:** | CE, C-Tick |
| **Construction:** | Polycarbonate DIN Rail enclosure (6 unit) |
| **Dimensions:** | H 86mm x W 105mm x D 66mm |
| **Weight:** | 0.25kg |

DDNG-KNX Instruction Manual Rev B.doc Specifications subject to change without notice
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