Models:

IG02 Innotech Dynalite Gateway

Innotech Dynalite Gateway

Overview

The Innotech Dynalite Gateway is a protocol gateway between the Innotech Global network and the Dynalite DyNet network. The purpose of the hardware gateway is to allow for information to be shared and passed between the two networks.

Features

- Fully isolated RS485 Global comms
- Fully isolated RS485 DyNet comms
- No gateway setup or programming required
- Provides 2-way communication
- Auto detects Global comms baud rate
- Definable area range for the DyNet comms to monitor
- Compatible with Logical DyNet programming
- Visual indication of power and comms activity

The IG02 is not designed to work with DyNet Physical Addressing.

Approvals

The Innotech Dynalite Gateway conforms to:

- EN 61326:2013 for CE marking and RCM labelling
- Title 47 CFR, Part 15 Class A for FCC marking
- UL listed to UL916, File Number E242628

Applications

- The Dynalite Gateway allows Innotech controllers to set Dynalite presets, channel levels and to request Dynalite settings such as current presets and channel levels
- Dynalite devices can transmit setpoints, adjust setpoints, turn air conditioning on/off and request temperature levels

Specifications

Power Supply

- 24VAC ± 10% @ 50/60 Hz
- Power consumption: ~ 3VA
- Transformer nominal rating of 5VA
- 24VDC ± 15%
- Power consumption: ~2W

The operating voltage must meet the requirements of Safety Extra Low Voltage (SELV) to EN60730. The transformer used must be a Class 2 safety transformer that has the energy and voltage limiting characteristics as described in the National Electrical Code, ANSI/NFPA70. It must also be sized and fused in compliance with local safety regulations.

Comms Connections

RS485 Innotech Global net (Port 1)

S1	Shield from incoming comms cable
+	RS485 + Global
-	RS485 - Global
S2	Shield from outgoing comms cable

RS485 Dynalite DyNet (Port 2)

S1	Shield from incoming comms cable
+	RS485 + DyNet
-	RS485 - DyNet
S2	Shield from outgoing comms cable

Temperature Ratings

• Storage	0 to 50°C non-condensing
• Operating	0 to 40°C non-condensing

Enclosure/Mounting

The Innotech Dynalite Gateway is housed in a rectangular case suitable for DIN rail mounting. The housing is moulded from flame retardant plastics recognised by UL as UL 94-V0.

Colour: Grey
Dimensions: 71mm(w) x 102mm(h) x 67mm(d)

Functionality

The Innotech Dynalite Gateway is a permanently situated hardware gateway between the Innotech Global network and the Dynalite DyNet network. The Gateway passes information between the two networks.

The Gateway is a plug and play device which automatically resolves any compatibility issues between networks.

Innotech devices interface to the Dynalite network via the Global comms network. The Gateway translates Innotech Global point block names into the Area/Channel/Preset format used by Dynalite. Dynalite devices can send requests to Innotech devices by using the standard Dynalite Logical Addressing Messages.

The Gateway supports up to 200 communication points between Innotech and Dynalite.

Wiring

- Note the polarity of the RS485 signal lines
- The tails of the cable screens should be made as short as possible (max 30mm) to maintain signal integrity and effective protection against electrical interference
- 0VAC/DC Supply terminal must be earthed

Innotech Comms Cable

The comms cable must be organised as a bus topology, ie. starting at one end, devices are connected until the other end of the cable is reached, there can be NO stubs. To connect a device to the cable, a cut is made in the cable at the point where the device is to be situated. The two new ends of the cable are wired into the device. The shields from the two new ends are then terminated into the terminals marked SHLD1 and SHLD2 respectively.

Refer to the Genesis System Network Installation Instructions for further information, DS99.04.

Dynalite Comms Cable

Innotech recommends wiring the comms signal as above. However, Dynalite wiring instructions take precedence at all times.

A minimum of 3 wires is required for reliable comms operation.

- + RS485
- - RS485
- SHLD1 or SHLD2

LED Indication

- Power LED (Red): Indicates 24VAC/DC power is present
- Comms LEDs; Transmit (Red), Receive (Green): Indicates general comms activity on the RS485 network

Setup/Programming

Jumpers are available to allow the Innotech Dynalite Gateway to be addressed on the Innotech Global network between addresses 2 through 17.

The table below indicates the numbered Gateway addresses and how the jumpers are to be positioned on the 4 pins (A0, A1, A2, A3) to produce the numbered address through binary configuration.

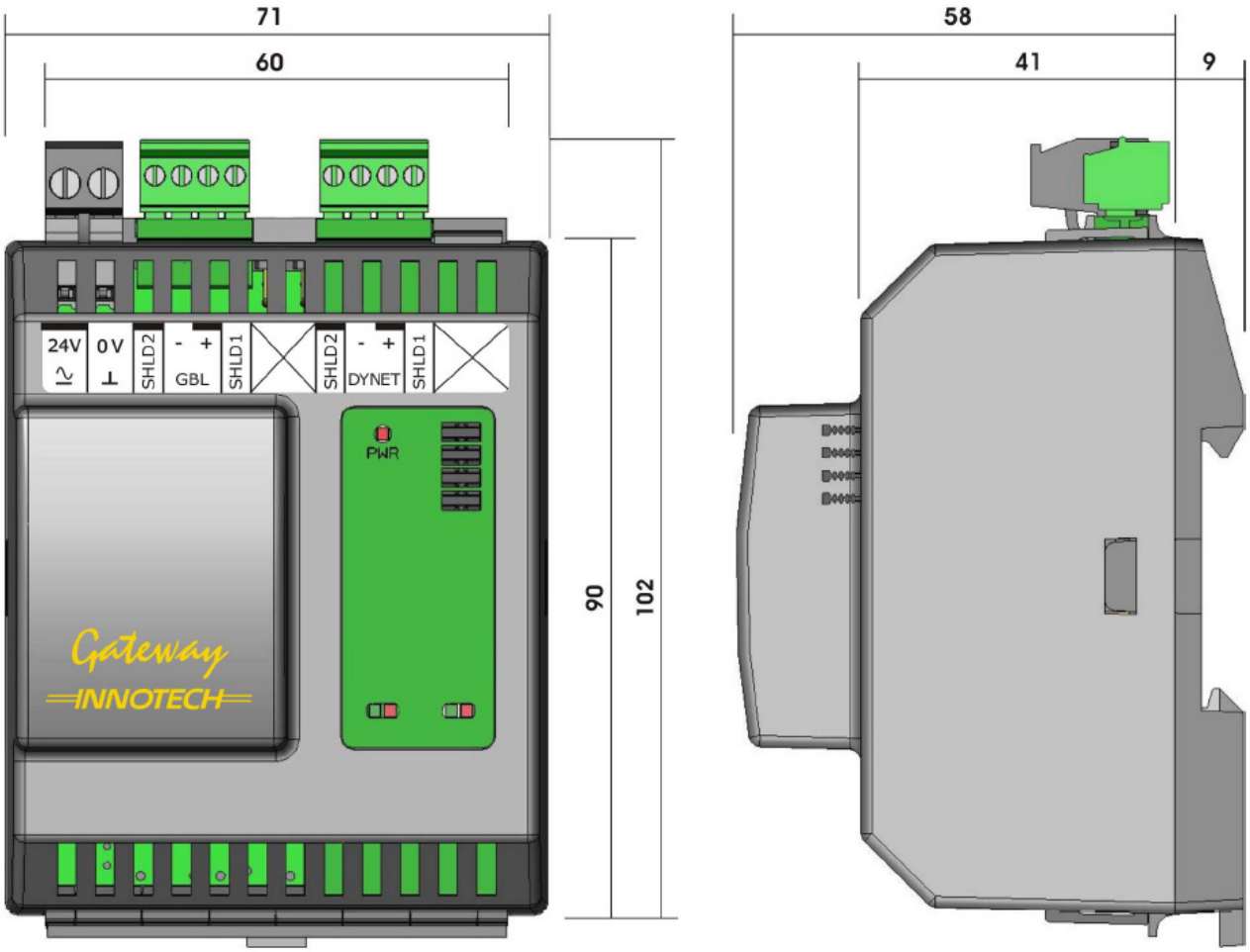
The address is read only on start-up. If the address must be changed, the device needs to be restarted by cycling power.

IG02 Dynalite Gateway

Address Information				
Gateway Address	**A3**	**A2**	**A1**	**A0**
2	X	X	X	X
3	X	X	X	-
4	X	X	-	X
5	X	X	-	-
6	X	-	X	X
7	X	-	X	-
8	X	-	-	X
9	X	-	-	-
10	-	X	X	X
11	-	X	X	-
12	-	X	-	X
13	-	X	-	-
14	-	-	X	X
15	-	-	X	-
16	-	-	-	X
17	-	-	-	-

X = Jumper Fitted - = Jumper Removed

IG02 Dimensions



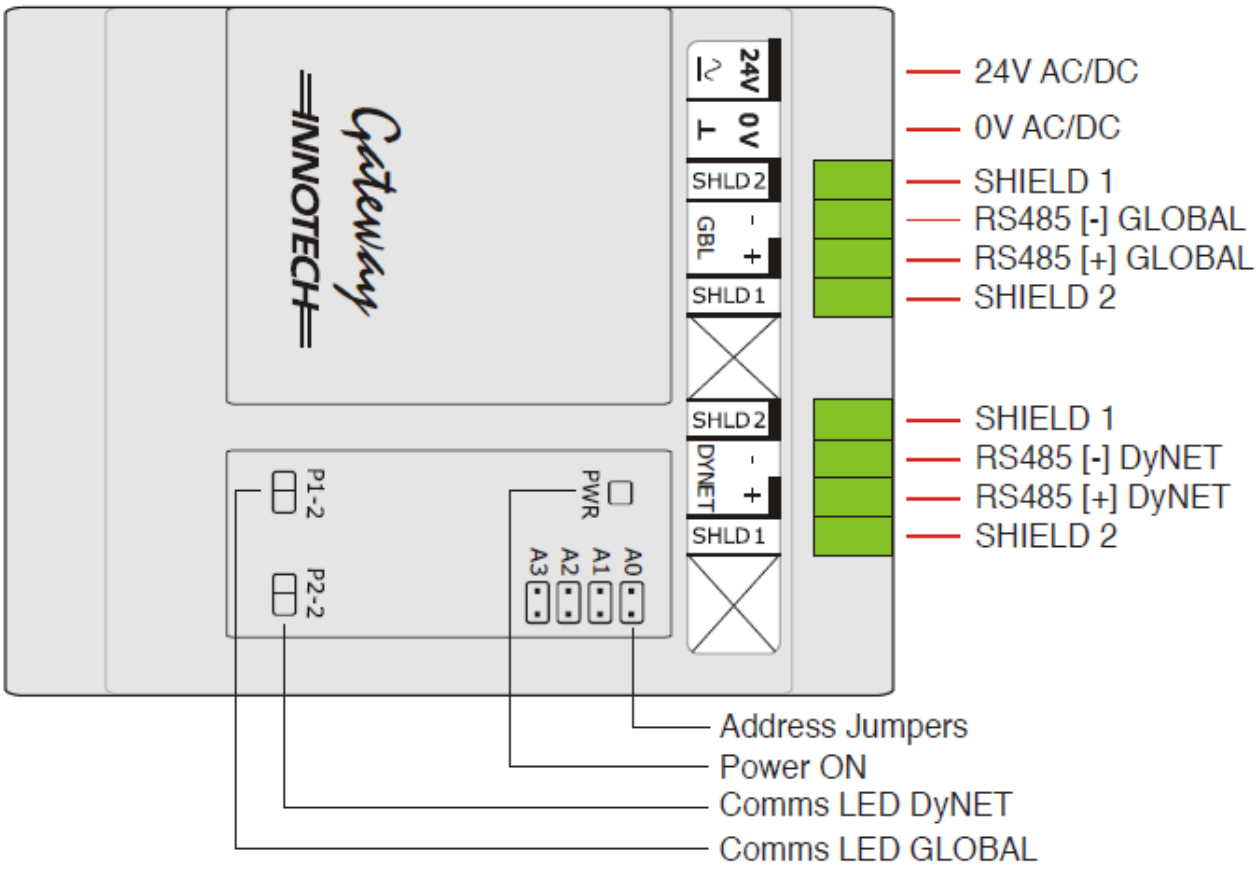
FCC Class A Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Note – This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
Modifications to this device, may void the authority granted to the user by the FCC to operate this equipment.

IG02 Connection Diagram



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