

Data Sheets – Internal Node

ENERVEO

An internal Mayflower node is installed within a luminaire to control the on/off/dim function and reports back energy consumption information. It has been designed to fit within a luminaire body for situations where it is not practical or aesthetically pleasing to fit an external control solution e.g. bollards, signs, heritage and designer lanterns.

In conjunction with the Mayflower Antenna, the Mayflower Node receives lamp control commands from the Mayflower Sub Master. The Mayflower Node is able to monitor, record and transmit measurement data, as well as alerting the user to potential fault issues.

Product Code

INTIII/DALI
INTIII/0-10V

Antenna

IP65
11mm fixing hole

Elexon Charge Code

9800010011100

Power Supply

Voltage: 230V 50Hz
Power consumption: <1W
Supply voltage tolerance: +10% to -6%
Voltage surge protection: 2KV
Over current protection required: 10A BS88 or equivalent

Enclosure

IP42
UV stable
Flame retardant

Measurement

Energy meter microchip
Accuracy: +/-1%
Voltage span: 200V to 260V
Current span: 50mA to 4A
Wattage span: 1W to 1000W

Microcontroller

Flash programmable CPU
Brown-out protection
Watch-dog timer protection
Run time clock plus 48hr supply protection

Switching

Energy efficient latching relay
Relay rating: 16A, 250V high in-rush

Node Communication

Zigbee IEEE 802.15.4
Licence free
Multi-channel
Dynamically configured mesh networking
Self-healing capability
Range: Up to 200m

Ballast Communication Protocols

DALI (Digital Addressable Lighting Interface)
0 to 10V (analogue)

Radio Transceiver

Frequency: 2405-2480MHz
Modulation: O-QPSK
Output power: <10 dBm
Temperature: -20°C to +65°C

UK/EU Approvals

EN55015:2006 + A1 + A2
EN61547:2009
EN 301 489-1:2011
FCC 47 CFR Part 15 Class A
FCC Part 15 Subpart C, 15.247
EN 300 328
IEC 61347-2-11:2011
IEC 61347-1:2007+A2:2012
IEC 61010 1:2010

AUS/NZ Approvals

AS/NZS 61010.1:2003
AS/NZS 4268:2012+A1:2013



Data Sheets - Stub Antenna

A 2.4GHz Mayflower Antenna providing a tamper resistant solution to enable the Mayflower Internal Node to communicate with the Sub Master.

It is installed through a 20mm hole on the lighting unit. An adhesive foam compression ring provides an IP65 seal.

The Mayflower Antenna is designed to be ground plane independent and is supplied with 700mm low loss cable, terminated with a male SMA connector.

Product Code

AN/ND/T2-STUB

Enclosure

Main body material: Polycarbonate
Black UL94-VO
Fitting: Body mount
Fitting diameter: 20mm
Thread length: 25mm x M20
Lock nut: Nylon
Operating temperature range: -40°C to +80°C

RF Properties

Operating frequency: 2.4-2.5GHz
Antenna type: Quarter wave
Input resistance: 50Ω
VSWR: <2:1
Polarization: Vertical
Peak gain: 2 dBi
Beam width: Omni directional

Cable

Cable type: RG174
Cable length: 70cm
Connector: SMA-Male

Compliance

IP65
RoSH compliance
REACH
UL94-V0
UV stable
CE/IEC 60950-22
IK06 to BSEN50102

Fitting Instructions

When fitting antenna make sure that lantern surface is cleaned and sticker has been removed from adhesive pad, so that Antenna will seal properly to the lantern body.

