DALI Zero Twelve module
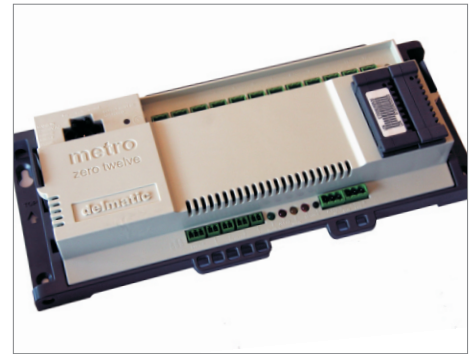
product ref: 206A1

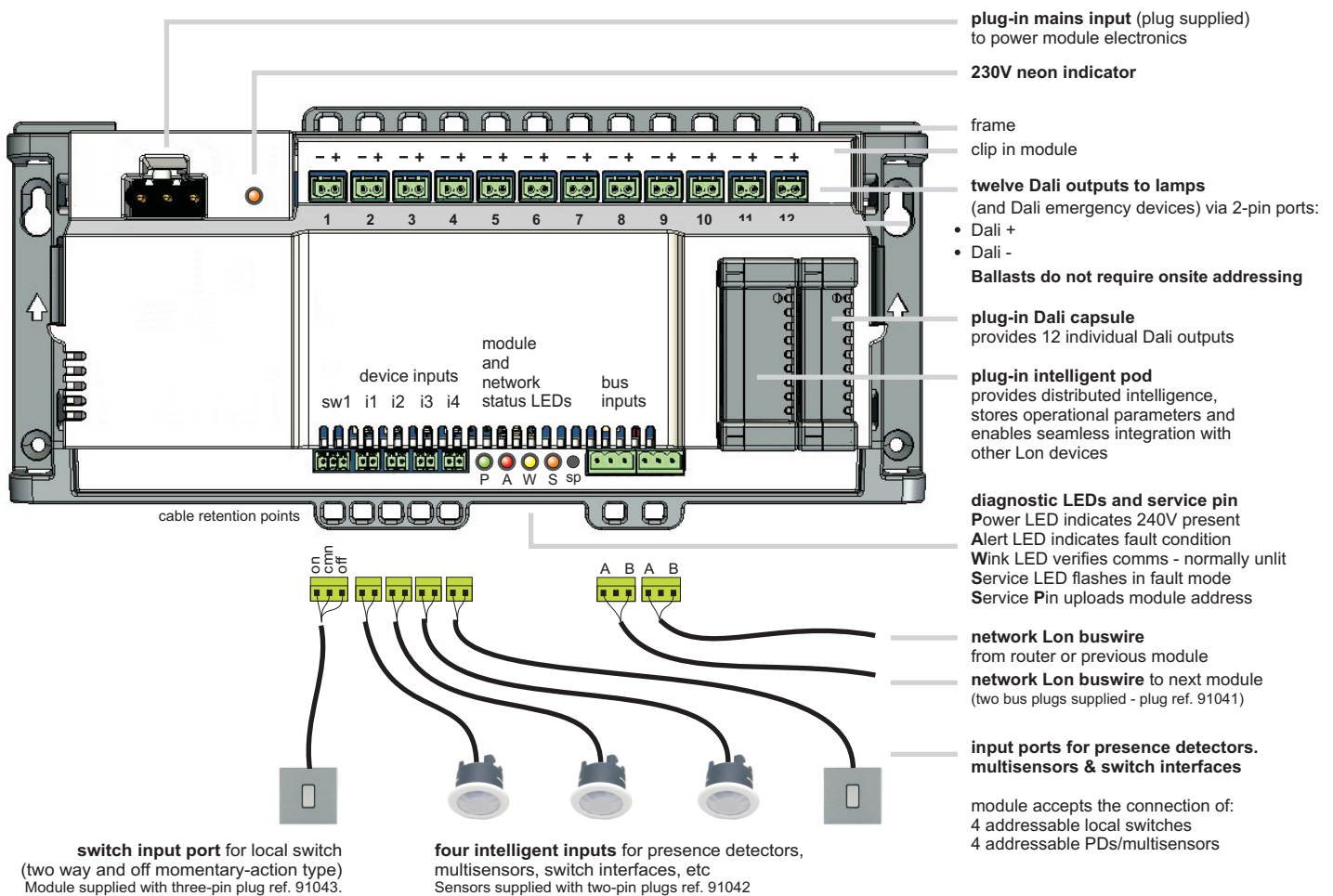The module provides individual control and automatic addressing of twelve DALI lamps.

- 12 individually addressed DALI outputs
- individual DALI lamp and ballast failure monitoring
- individual DALI emergency light testing and monitoring
- total plug-in connectivity for speed and convenience
- 2-pin ports provide switched DALI pair to each lamp
- Dali without addressing feature avoids on-site addressing of ballasts
- reduces time and cost of commissioning and simplifies maintenance
- designed for single or two-fix installation via wall-mount or drop-rods

The module provides a DALI signal to each lamp while the mains supply is fed directly to the lamps and powers the module. Multiple power supplies to the lamps are possible but because DALI is not SELV they should be limited to single phase.
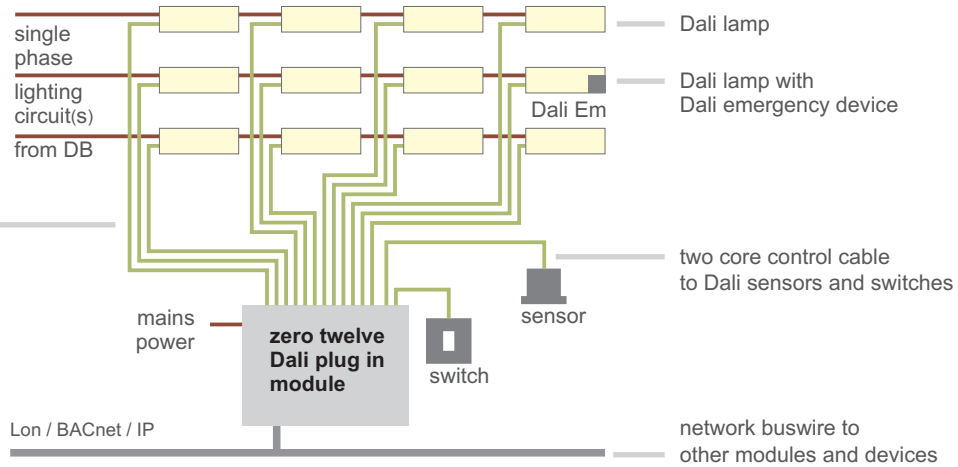
module features

plug-in mains input (plug supplied) to power module electronics

230V neon indicator

frame
clip in module

twelve Dali outputs to lamps
(and Dali emergency devices) via 2-pin ports:
- Dali +
- Dali -

Ballasts do not require onsite addressing

plug-in Dali capsule
provides 12 individual Dali outputs

plug-in intelligent pod
provides distributed intelligence, stores operational parameters and enables seamless integration with other Lon devices

diagnostic LEDs and service pin
Power LED indicates 240V present
Alert LED indicates fault condition
Wink LED verifies comms - normally unlit
Service LED flashes in fault mode
Service **P**in uploads module address

device inputs
sw1 i1 i2 i3 i4

module and network status LEDs

bus inputs

P A W S sp

cable retention points

on
cmn
off

A B A B

network Lon buswire
from router or previous module
network Lon buswire to next module
(two bus plugs supplied - plug ref. 91041)

input ports for presence detectors. multisensors & switch interfaces

module accepts the connection of:
4 addressable local switches
4 addressable PDs/multisensors

switch input port for local switch
(two way and off momentary-action type)
Module supplied with three-pin plug ref. 91043.

four intelligent inputs for presence detectors, multisensors, switch interfaces, etc
Sensors supplied with two-pin plugs ref. 91042

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connection details

Lighting circuit(s) wire direct to lamps from distribution board. Multiple circuits are possible but because DALI is not SELV should be limited to single phase.

2-core cable
Dali +
Dali -

single phase

lighting circuit(s)

from DB

Dali Em

Dali lamp

Dali lamp with Dali emergency device

two core control cable to Dali sensors and switches

sensor

mains power

zero twelve Dali plug in module

switch

Lon / BACnet / IP

network buswire to other modules and devices

technical details

supply voltage
1 x 220-240V~ 50/60Hz single phase power supply protected by fused spur

outputs
mains supply to power lamps is wired direct from distribution board to lamps
12 Dali outputs (ports are pre-addressed so ballasts do not require on-site addressing)

Dali monitoring
Module monitors individual lamp/ballast failure on each of the twelve Dali outputs
Module monitors individual Dali emergency lamp/device on each of the twelve Dali outputs

emergency monitoring
Dali emergency monitoring devices can be connected to the Dali bus from each port
and are individually addressed for emergency test and monitoring purposes.

local switch inputs
1 plug-in port (3-pin - sw1) for connection of conventional monetary action switch
4 plug-in ports (2-pin - i1-i4) for connection of Dali sensors & switches (max 1 sq.mm cable).

network Lon bus inputs
2 plug-in ports for twisted pair Lon network bus connection.

buswire specification
for latest buswire specifications refer to Buswire Specification data sheet

diagnostic LEDs
Neon - shows 240v present.
Power LED - shows secondary power circuit operational.
Alert LED - indicates short on the sensor bus or issue with Communication card.
Wink LED - winks when instructed through software
Service LED - indicates fault mode.

construction
flame-retardant low smoke moulded housing

ambient temperature / relative humidity
0 to +50°C / 20% to 90% non condensing

dimensions (mm)
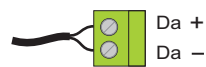345 w x 155 h x 60 d (100 mm depth including mains plug)

Lon specification

FT5000 Neuron and FTX3 transceiver conforms to LonMark 3.4 profiles:

4 switch objects	# 3200
4 light sensor objects	# 1010
4 occupancy sensor objects	# 1060
12 open-loop actuator objects	# 0003
4 occupancy controller objects	# 3071
4 light controller objects	# 3050

plug details

DALI output to lamps
(plug supplied)

(Dali - and Dali +)

Da +
Da –

mains input to module (plug supplied)
3 pole female plug with locking device
(Live, Earth, Neutral)

N — Neutral
E — Earth
L — Live