DALI Broadcast module

product ref: 204A1

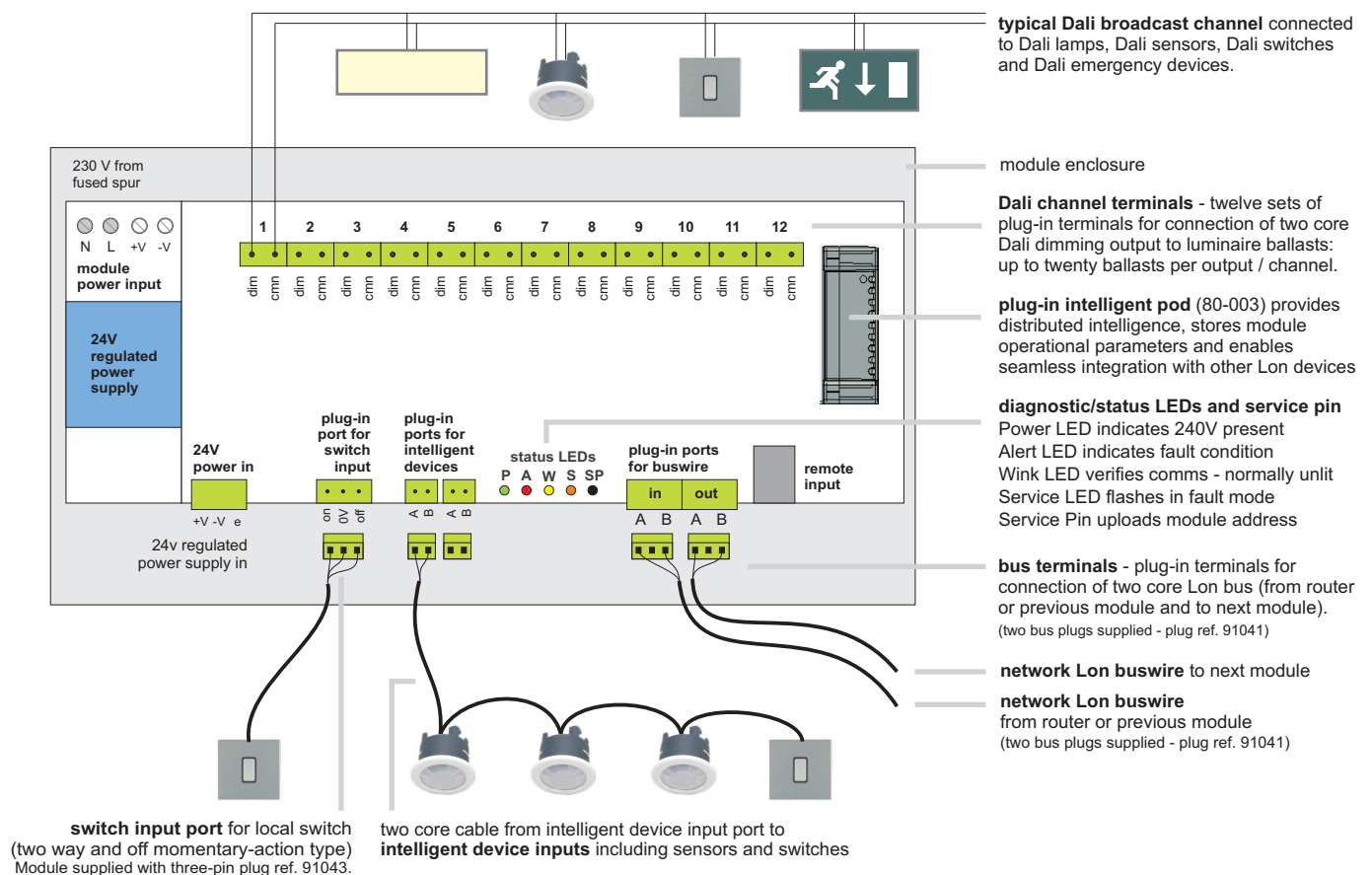The module provides control of 240 DALI lamps across 12 DALI channels.

- 12 individually addressed DALI channel outputs
- 240 Dali lamps controlled as twelve DALI broadcast channels or groups
- DALI lamp and ballast failure monitored individually and displayed per channel
- individual DALI emergency light testing and monitoring per DALI device
- DALI sensors, switches and emergency devices connect to the DALI channels
- sensors/switches on a channel automatically control lamps on that channel
- DALI without addressing feature avoids on-site addressing of ballasts
- reduces time and cost of commissioning and simplifies maintenance

The mains supply is fed directly to the lamps and powers the module: the module provides an individual DALI broadcast signal to each channel.

DALI sensors and switches connected to a channel automatically control lamps on that channel. If lamps on more than one DALI channel are to be controlled by the same local device, the device should be connected to the Intelligent device port.
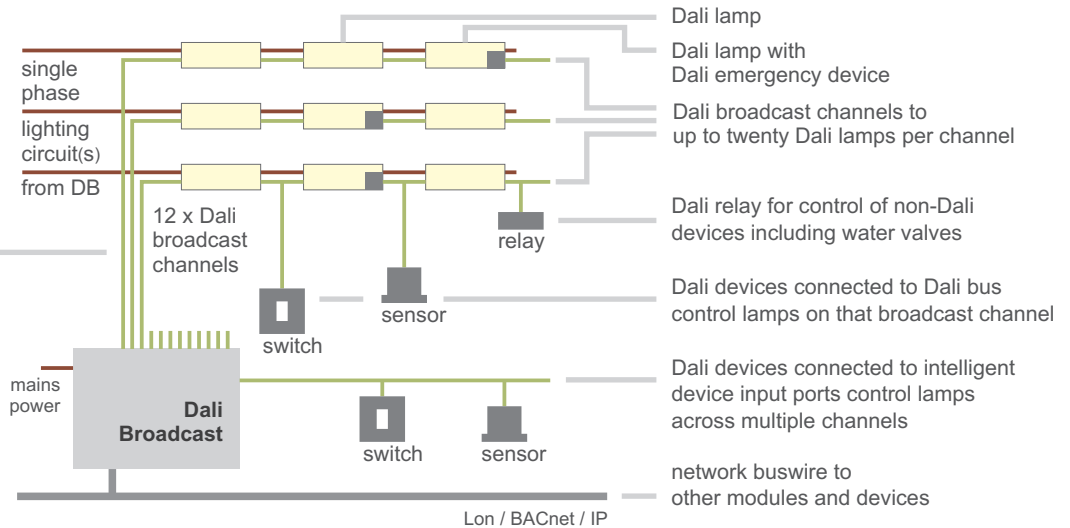
module features

typical Dali broadcast channel connected to Dali lamps, Dali sensors, Dali switches and Dali emergency devices.

module enclosure

Dali channel terminals - twelve sets of plug-in terminals for connection of two core Dali dimming output to luminaire ballasts: up to twenty ballasts per output / channel.

plug-in intelligent pod (80-003) provides distributed intelligence, stores module operational parameters and enables seamless integration with other Lon devices

diagnostic/status 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 Pin uploads module address

bus terminals - plug-in terminals for connection of two core Lon bus (from router or previous module and to next module).
(two bus plugs supplied - plug ref. 91041)

network Lon buswire to next module

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

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

two core cable from intelligent device input port to intelligent device inputs including sensors and switches

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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

12 x Dali broadcast channels

mains power

Dali Broadcast

switch

sensor

relay

switch

sensor

Lon / BACnet / IP

Dali lamp

Dali lamp with Dali emergency device

Dali broadcast channels to up to twenty Dali lamps per channel

Dali relay for control of non-Dali devices including water valves

Dali devices connected to Dali bus control lamps on that broadcast channel

Dali devices connected to intelligent device input ports control lamps across multiple channels

network buswire to other modules and devices

technical details

outputs
Mains supply to power lamps is wired direct from distribution board to lamps.
12 DALI broadcast channels feed up to twenty DALI ballasts per channel.
Channel 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 channels and displays lamp failures on a channel basis.
Module monitors individual Dali emergency lamps/devices on each of the twelve Dali outputs and displays emergency lamp and device failures on an individual basis.

Dali sensors, switches and emergency devices
Module accepts DALI sensors, switches, switch interfaces and Dali emergency devices on each of the twelve channels.
DALI sensors and switches connected to the two-core DALI channel bus control DALI lighting on that channel (max 1 sq.mm cable).
DALI emergency monitoring devices connect to any Dali channel bus and are individually monitored.

Module incorporates input ports for **intelligent devices**
DALI sensors and switches connected to these ports can be configured to control lamps across multiple broadcast channels.
Intelligent device input port accepts connection of up to 16 DALI switches/sensors (max 1 sq.mm cable with maximum 100m length).

local switch inputs
1 plug-in port (3-pin) for connection of conventional monetary action switch
2 plug-in ports (2-pin) for connection of intelligent devices including Dali sensors & switches

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

buswire specification
for latest buswire specifications and cable lengths refer to Buswire Specification data sheet

supply voltage
1 x 220-240V~ 50/60Hz single phase power supply.

diagnostic LEDs
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.

Lon specification

FT5000 Neuron and FTX3 transceiver conforms to LonMark 3.4 profiles:

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

construction
painted galvanised steel enclosure finished RAL 7035

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

dimensions (mm)
330 w x 190 h x 70 d