

DELi = Dali + LonWorks



DELi T1.1E

what is DELi ?

DELi is a radical new lighting control module which combines latest addressable DALI dimming with LonWorks technology and vastly simplified electrical installation.

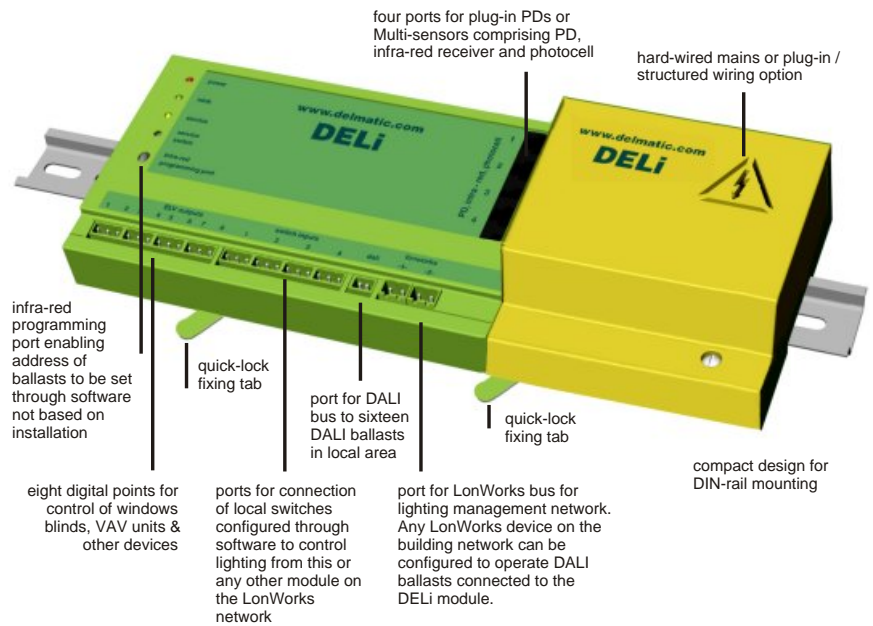
DELi individually addresses sixteen luminaires, yet a single pair is all that runs from the DELi module to the luminaires - mains wiring runs directly to the lamps.

DELi offers total plug-in connectivity, while the address of each lamp is assigned using a hand-held programming device.

DELi forms part of a comprehensive ZMC lighting management solution with web-browser and telephone control of lighting as well as load management & interactive control of lighting throughout a building.

DELi incorporates LonWorks for seamless interoperability with other building services.

DELi provides a transparent window between the Dali dimming protocol and the LonWorks protocol, enabling system integrators to "connect" Dali ballasts directly to interoperable Lon devices using standard software and binding tools.



www.delmatic.com/deli
www.delmatic.com/lonworks
www.delmatic.com/dali

technical data

- individual addressing, switching & dimming of 16 Dali ballasts along a single buswire
- ballast address set by infra-red programming tool and not reliant on manner of installation
- fully plug-in connectivity
- compact unit
- hard-wired or structured wiring mains options
- plug-and play connection for switches, presence-detectors (PDs), infra-red (IR) receivers, photocells and multi-sensors comprising PD, IR and photocell
- four local switch inputs
- four presence detector / multi-sensor inputs
- eight digital points for control of window blinds, VAV, etc - arranged as four pairs
- dimensions - 305 (l) x 115 (h) x 48 (d) mm
- weight - 0.9 kg
- mains supply - 220-240V~ 50/60Hz 50mA
- volt-free contact ratings with resistive load (cosφ = 1)
switching voltage: 25 VAC/60 VDC_{max}
switching current: 0.5A_{max}, 1mA_{min}

lonworks data

- LonWorks Neuron chip with FTT-10A transceiver
- direct LonWorks binding to DALI ballasts from any Lon device forming part of the LonWorks building-services network.
- ability to re-configure local and central switching patterns through Delmatic ZMC software or any Lon-binding software tool.

Data sheet available on LonWorks network variables and functional blocks.

circuit layout

Wiring DELi is simplicity itself as the module makes extensive use of plug and socket connectivity.

The lighting circuit and the twisted pair Dali bus are totally independent, and a single DELi module can control 16 luminaires across one or more lighting circuits.

single-circuit application

Diagram 1 shows a single-circuit application with the lighting circuit wired directly to the sixteen ballasts and the Dali bus wired from the DELi module to the ballasts. The mains supply taps off to provide power to the DELi module.

structured cabling

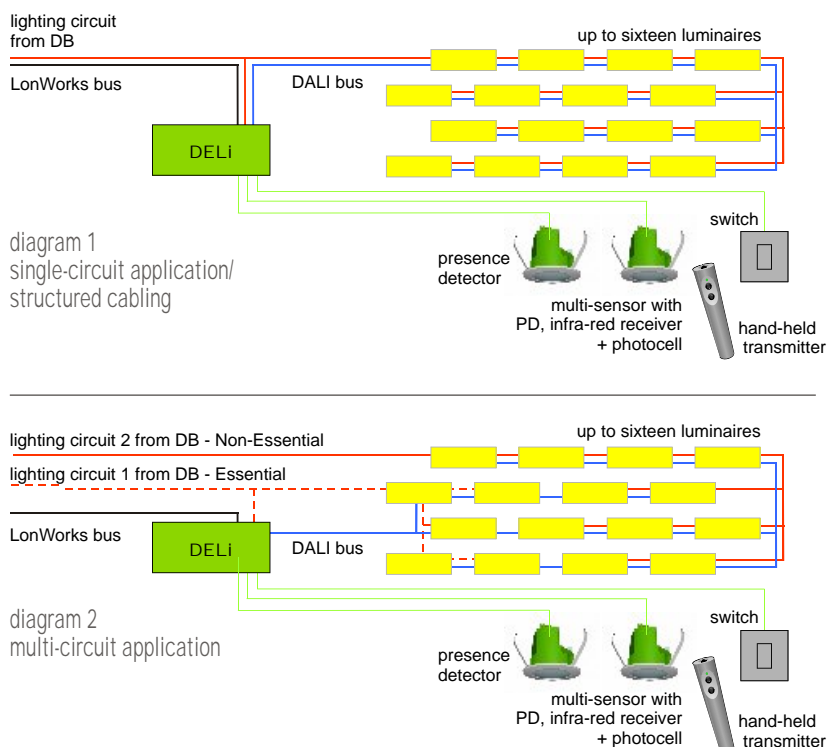
To speed installation, DELi can be supplied with structured cabling for mains & bus connections. A five-core structured-cabling connector T-piece (L,N,E plus a buswire pair) conducts the lighting circuit from the distribution straight through to the luminaires, yet tees into the DELi module. The data pair forms the LonWorks bus on the incoming side and Dali bus on the outgoing side, ie. 7 cores run through the T flex into the DELi module.

multi-circuit application

Because Dali control is not mains-related, luminaires connected to essential, non-essential and central battery circuits can be controlled from a single DELi unit.

Diagram 2 shows a multi-circuit application. Luminaires are connected by a single Dali bus from a single DELi module, yet are fed from two lighting circuits.

In both examples, local control devices - presence detectors, photocells, multi-sensors and wall switches are plugged into ports on the DELi module.

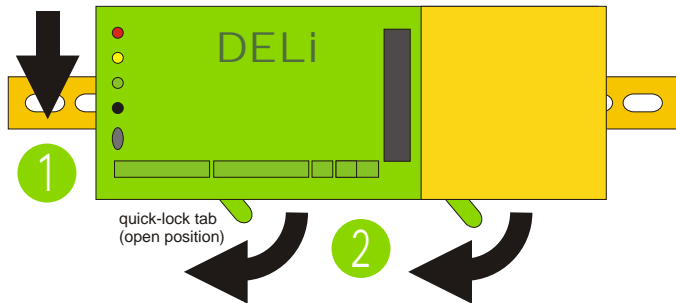


DELi benefits from Delmatic's policy of continual development: some products details may differ from this data sheet

installation

DELi is quick and easy to install. DELi clips directly onto DIN rail and is secured using integral quick-lock fixing tabs.

1. Hook the DELi onto the DIN rail (see illustration below).
2. Push the two quick-lock tabs to the left to lock DELi to the DIN rail bar.



important notice

All wiring should be carried out by a qualified electrician in accordance with the local current edition of wiring regulations, observing any special national conditions.

For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device must be incorporated in the building installation wiring.

wiring

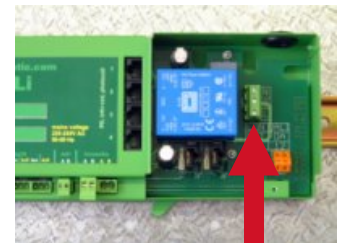
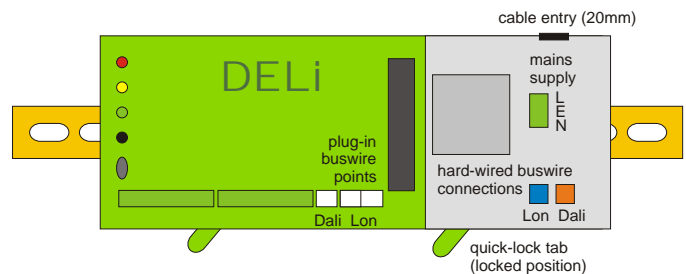
Wiring DELi is simplicity itself as the module makes extensive use of plug and socket connectivity. Terminals for hard-wired connections are provided and accessed by unscrewing the retaining screw and unclipping the yellow lid section.

There are three main connections -

1. Dali bus
2. LonWorks bus
3. Mains power

Ancillary connections include Local Switches, PDs and MultiSensors and volt-free outputs for control of other building services devices.

DELi module with yellow lid removed to show mains terminals and terminals for hard-wired connection of Dali and Lon buswires



plug-in or hard-wired Dali bus

The Dali bus comprises a twisted pair connected to a number of Dali ballasts. For individual control of luminaires, a maximum of sixteen ballasts should be connected on the Dali bus.

The Dali bus is polarity-free & luminaire ballasts may be wired in any order - the ballast address is configured through computer software or using a hand-held programming device transmitting to the infra-red programming port integral to the DELi module.

The Dali bus may be plugged into the plug-in Dali port or may be wired (in conduit or within structured cabling) to terminals within the DELi module.

plug-in or hard-wired Lon bus

The LonWorks bus comprises a twisted pair cable connecting a number of DELi modules to a Delmatic ZMC floor control router or to a LonWorks router supplied by others.

The LonWorks bus is polarity-free.

The LonWorks bus may be plugged into the plug-in LonWorks port or may be wired (in conduit or within structured cabling) to the terminals within the DELi module.

Two plug-in connections are provided for ease of in-out connectivity.

mains

The DELi module requires 220-240V~50-60Hz supply to power the control electronics.

The lighting circuit and the Dali bus are totally isolated and independent, so a single DELi module can control 16 luminaires across one or more lighting circuits, and may be fed from one of the lighting circuits or from a separate power source.

Because Dali control is not mains-related, luminaires connected to essential, non-essential and central battery circuits can be controlled from a single DELi unit.

product approvals

