

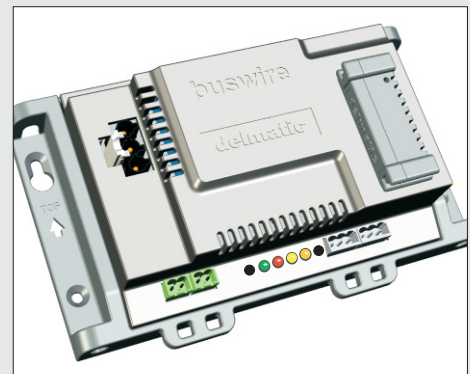
# delmatic metro Dali Buswire One module



The **Dali Buswire One** provides flexible individual addressing, switching, dimming & monitoring of Dali luminaires connected to a common Dali buswire: Dali presence detectors, multisensors, switches and emergency monitoring devices also connect to the Dali buswire.

The module may be configured to maximise the number of connected Dali devices or maximise grouping flexibility. Maximum ballast count is achieved by connecting the Dali maximum of sixty-four ballasts and controlling these as up to sixteen Dali groups: maximum flexibility is achieved by connecting a reduced number of ballasts or devices and using custom software which overcomes the traditional Dali limitation of sixteen groups.

The module incorporates distributed intelligence & non-volatile memory which stores operational parameters, monitors lighting status including lamp hours-run data and incorporates lamp and ballast failure detection.



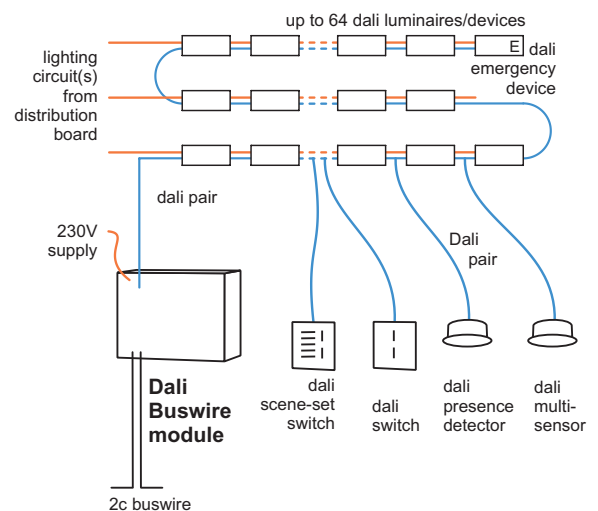
■ **metro Dali Buswire One**  
product ref: 205A1

The **Dali Buswire One module** connects to up to 64 Dali devices including luminaires, presence detectors, multisensors, switches, relays, drivers & emergency monitoring devices.

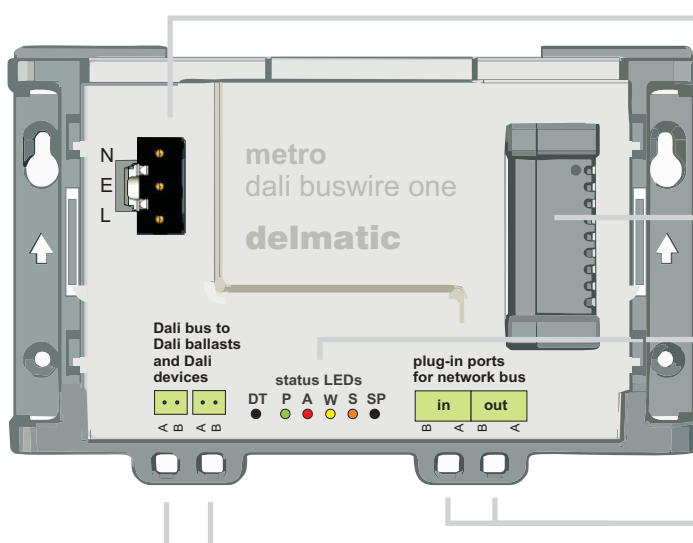
The module connects via a two-core cable to the Dali ballasts and Dali devices. Lighting circuits are wired direct from the distribution board to the luminaires and the module derives its operating power from the lighting circuit or separate 230V supply: the Dali bus may run alongside mains cables.

The distributed intelligence module individually addresses & monitors each luminaire and device and provides real-time feedback of lamp and ballast failure. An integral test button enables the operation of the Dali luminaires to be verified prior to configuration of the system.

The **Dali Buswire One** connects to the lighting management Lon bus and integrates Dali sub-networks into a building-wide network with the option of seamless interoperability with other Lon building services.



## module features



**plug-in mains input** (plug supplied with module)

**frame with clip-in module**

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

**diagnostic LEDs and service pin**

**Power LED** - indicates module is powered up

**Alert LED** - lights to indicate a short on the Dali bus

**Wink LED** - winks when instructed by software

**Service LED** - lights when service pin pressed and flashes if module has no application software

**SP service pin** - uploads module address

**DT Dali test button** - pressing button for 2 seconds transmits an on/off/dimming command to all ballasts enabling the operation of luminaires to be verified.

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

**Dali bus** to up to 64 Dali ballasts/devices. plug ref. 91040 connects to D+ & D- (two ports operate in parallel)

**delmatic**  
www.delmatic.com

**London, UK**  
+44 (0) 20 8987 5900  
delmatic@delmatic.com

**Dubai, UAE**  
+971 (0) 4 2566 722  
sales@delmaticarabia.ae

**Doha, Qatar**  
+974 4452 8226  
sales@delmaticqatar.com

**Riyadh, Saudi Arabia**  
+966 (0)1 211 8170  
sales@delmaticsaudi.com

## Dali Buswire One applications

### Buswire installation

The **Dali Buswire One** can connect to multiple Dali luminaires/ballasts and Dali devices via a two-core buswire or flexible conduit installation: each luminaire is independently addressed, dimmed & monitored.

Lighting circuits are wired direct to the luminaires: the Dali bus can run alongside mains cables or as part of a five core cable.

### Busbar installation

The **Dali Buswire One** benefits busbar installations through the ability to individually control luminaires connected to a shared busbar.

3 poles of a 5-pole busbar provide L, N & E connections to luminaires: the Dali output from the Dali Buswire Module connects to the remaining 2 poles of the bar for the connection of Dali luminaires/ballasts and Dali devices.

### Chilled beam installation

The **Dali Buswire One** benefits chilled beam installations through the ability to individually control luminaires and attach Dali sensors/switches to a single two core bus within the beam.

The lighting circuit is wired direct to the luminaires and a two core cable wires from the Dali Buswire module to the Dali ballasts and devices.

Dali technology enables up to 64 devices (ballasts, presence detectors, multisensors, switches etc) to be connected to a common buswire. **However the ability to individually address luminaires along a common buswire requires each ballast to be assigned a unique address on site after installation with associated time and cost considerations:** addresses are assigned using a hand-held programmer or laptop computer.

**To avoid the need to address ballasts on-site, Delmatic offer a range of Dali controllers including the Dali Broadcast Module and the Dali Plug-in Module.**

## technical details

### supply

1 x 220-240V~ 50/60Hz single phase circuit to power module.  
(3 pin plug-in mains input connector supplied)

### protection

Module requires external protection by 10A MCB.

### Dali bus connection

two 2-pin ports for Dali bus connection (max 1.5 sq.mm cable).  
Dali sensors (presence detectors and multisensors), Dali switches and switch interfaces, and Dali emergency devices connect to the Dali buswire.  
The two ports operate in parallel.

### Dali bus specification and length

recommended minimum Dali cable conductor size  
up to 100 metres - 0.5 sq.mm - use Belden 8205  
100 to 150 metres - 0.75 sq.mm  
150 to 300 metres max - 1.5 sq.mm

### Lon bus connection

2 plug-in ports for twisted pair Lon bus connection (max 1.5 sq.mm cable)

### Lon bus specification

**330 V rms** - twisted pair Belden 7701NH unshielded 22 AWG stranded  
**600 V rms** - twisted pair Belcom 4001P22S54LSZH unshielded 22 AWG solid

### Lon specifications

Echelon LonWorks FT5000 Neuron  
FTX3 free topology transceiver  
64kb EEPROM  
Conforms to LonMark 3.4 guidelines and profiles

**dimensions (mm)** 225 w x 133 h x 66 d  
100mm depth including mains plug

### construction

flame-retardant low smoke moulded housing

### ambient temperature / relative humidity

0 to +50°C / 20% to 90% non condensing

### mounting

The module is designed for wall or soffit mounting using four M5 screw fixings or two 8mm droprods.

