



MCToDALI Bridge

System Description and Technical Specifications

The MCToDALI Bridge is an important component within the MasterConnect emergency monitoring system, enabling seamless integration of luminaires equipped with any third-party DALI emergency converter. This allows these devices to be recognised and managed within the MasterConnect ecosystem.

With the addition of a Signify Gateway, the system supports wireless automated emergency testing and reporting.

The MCToDALI Bridge serves as a versatile interface between DALI drivers and MasterConnect systems, enabling wireless communication and control. While commonly used in emergency systems, it is designed for general lighting use also. The MCToDALI Bridge will facilitate wireless control of any 3rd Party DALI luminaire, within the MasterConnect system.

The bridge is commissioned and configured via Bluetooth available on modern smartphones using the Philips MasterConnect app.

Product features

- Connect up to 4 DALI drivers and control them together
- Smaller form factor compared to SR Bridge combined with a SNS412 MC
- Strain relief for independent mounting included
- MasterConnect Emergency Monitoring ready
- Zigbee 3.0 and DALI-2 certified
- Configuration with Philips MasterConnect app via Bluetooth
- To be used with DALI drivers (no SR, no D4i)

Benefits

- Ideal to bring wireless connectivity to emergency or other DALI-luminaires
- DALI-2 interface for high interoperability
- Wireless light control using grouping or zoning using Zigbee 3.0
- Group operation optimizes energy savings and lighting aesthetics
- Compatibility with qualified gateways, e.g. MC Gateway

Applications

- Indoor emergency lighting systems
- Offices, education & hospitals
- Retail applications
- Warehouses and production sites

For more information see:

<https://www.signify.com/global/prof/>



MCtoDALI Bridge

Product data

Physical Information	
Overall Dimensions	92.9 mm x 36.5 mm x 21 mm
Net Weight per Piece	37 g
Color	White
Wiring	2x mains, 2x DALI Solid wires: 0.75-1.5 mm ² Stranded wires: 0.75 - 1 mm ² , only with ferrule Wire isolation: max diameter 3 mm Strip length 9 mm ± 0.5 mm

Electrical Information	
Input Voltage	220 - 240 V, 50 - 60 Hz
Current Consumption	5 mA typical
Power Consumption	250 mW (max, measured at 230V)
No. Dali drivers per bridge	For emergency applications: 1 DALI driver plus 1 TrustSight For light control: max 4 DALI drivers D4i and SR drivers must not be connected. Do not connect another DALI supply to the MCtoDALI Bridge.
DALI wire length	2 m max
DALI PSU current	10 mA min, 250 mA max
Insulation to DALI	Basic isolation
Shutdown mechanism after short circuit	Implemented on DALI lines
Inrush Ipk	0.5 Apk (at 230 VAC)
Inrush Twidth	200 ms (at 230 V)
Surge differential mode	1.0 kV (Acc. IEC/EN 61000-4-5, 2 Ohm, 1.2/50 micro-sec, 8/20 micro-sec)
Surge common mode	2.0 kV (Acc. IEC/EN 61000-4-5, 12 Ohm, 1.2/50ms, 8/20 ms)

Task Tuning	
Full light setting	1% - 100%
Tunable White	With Philips FlexTune driver, default factory setting: 4000K

Environment & Approbation	
Operating Ambient Temperature Range	-30°C to +65°C
Operating Humidity Range	10% to 90% relative humidity
Ingress Protection (IP) Rating	IP20
Polution degree	2
Storage Temperature Range	-30°C to +85°C
Storage humidity Range	5% to 95% relative humidity
Agency Approbations	CE, ENEC, CB, UKCA, RED
Warranty	5 years
Lifetime	100,000 hours
Digital Interface	DALI

MCtoDALI Bridge

Product data

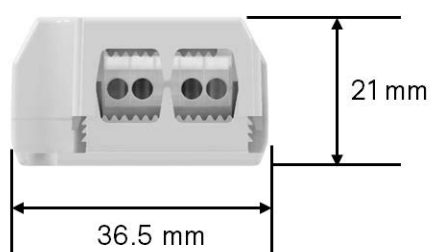
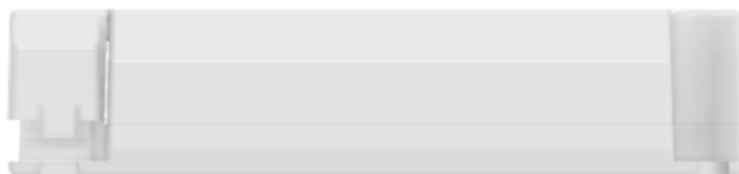
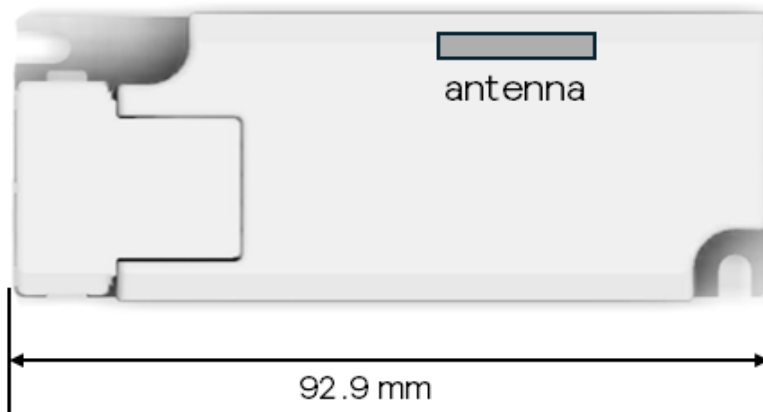
Other	
Wireless Protocol	Zigbee, IEEE 802.15.4, Bluetooth Low Energy
Encryption	AES-128
Energy reporting	Group-level using the Philips MasterConnect App or project-, group-, and zone-level using the MasterConnect Gateway
Emergency reporting	Device level using the MasterConnect Gateway
Zigbee Tx power	8 dBm
Bluetooth Tx power	4 dBm
Max Distance Switch-to-first MCtoDALI Bridge	15m line-of-sight
Max Distance Bridge-to-Bridge	15m line-of-sight
Max Smartphone to Bridge	15m line-of-sight
Max no. devices per Group	120 (in MasterConnect App)
No. of Zones per Group	15 max. (in MasterConnect App)
No. Switches per Group	15 max, 5 max per zone (in MasterConnect App)
Field Configuration	Via Bluetooth with Philips MasterConnect App

Ordering information

Commercial product name	Colour	Description	EOC	12NC	MOQ
MCtoDALI Bridge	White	MC to DALI bridge to enable wireless connectivity of DALI drivers	872110315036300	9290 048 32606	10

MCtoDALI Bridge

Dimensions

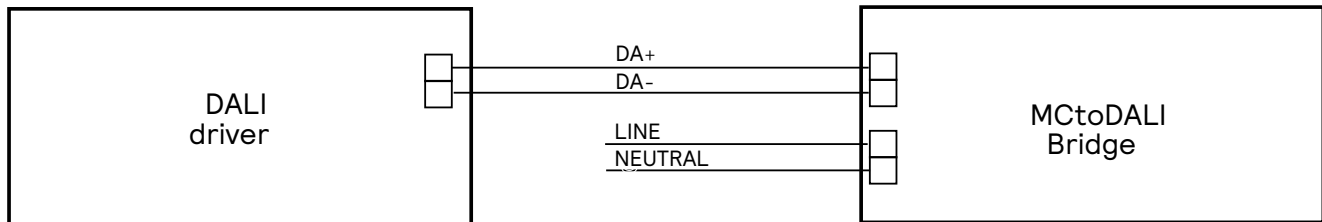


Mounting

The MCtoDALI Bridge can be mounted in a luminaire using two M4 screws, or can be placed independently e.g. on top of a recessed ceiling.

MCtoDALI Bridge

Wiring diagram



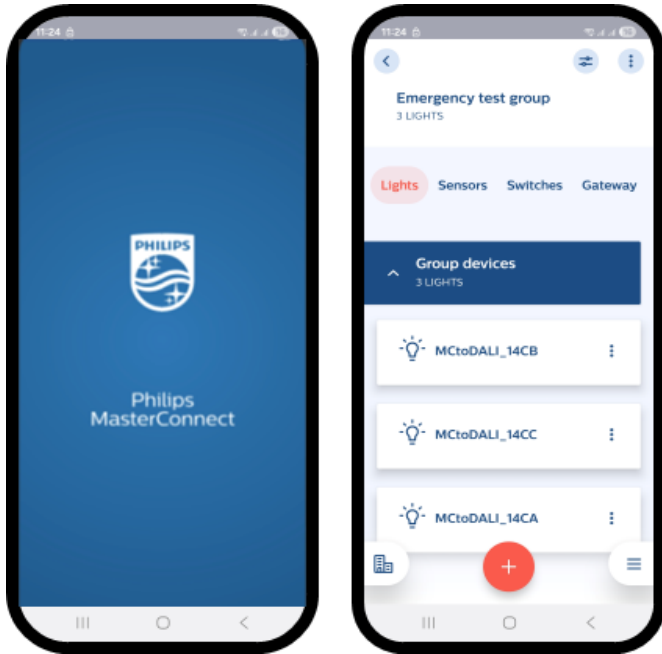
Warning:

Control terminals marked 'Caution' are considered to be hazardous/live parts and are not safe to touch. Circuits connected to these terminals shall be insulated according to the mains supply voltage of the control gear and any terminals connected to these circuits shall be protected against accident contact.

Do not connect D4i or SR drivers (e.g. Xitanium SR sensor ready drivers) or auxiliary DALI power supply to the DALI connection of the MCtoDALI Bridge, as this may cause damage to the device. The bus power supply does not implement reverse polarity protection. Damage can occur if connected in a system with another bus power supply.

MCToDALI Bridge

Philips MasterConnect app



Parameters of the MCToDALI Bridge radio node can be commissioned and configured with the Philips MasterConnect app.

This app allows grouping of luminaires and adding switches along with easy configuration of MCToDALI Bridge parameters.

Download Philips MasterConnect app from the Google Play Store or the Apple App Store. For details see the app manual on our website:

https://www.signify.com/global/prof/led-electronics/masterconnect-system/SMC_LEDELECTRCONN_CA/category

Default factory settings

Field Task Tuning	100%
Eco-On Level	100%
Background Light Level	20%

Radio Equipment Directive (RED)

This device meets the EU requirements (2014/53/EU) on the limitation of exposure of the general public to electromagnetic fields by way of health protection. The device complies with RF specifications when the device is used at 20cm from your body.

MCtoDALI Bridge MasterConnect

Disclaimer

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03/2026

Data subject to
change