

DLS-DALI Lighting Control System (MODBUS)

Datasheet

The DALI64 lighting control system is a fully featured standalone DALI lighting control system embedded into a state of the art PIR. DALI64MODPSU can seamlessly integrate with Building Energy Management Systems (BEMS) with a simple MODBUS connection or operate as a standalone DALI addressable system.

Designed to DALI 2 open protocol, it provides 64 DALI luminaire addresses and 64 Device addresses (e.g. PIR, switch input etc.)

Room level environment control of HVAC and lighting is achieved through integration with a BEMS via a MODBUS connection.

DALI64MODPSU is optimised for connection to Honeywell controllers on the Niagara platform, e.g. Merlin NX, EHNX, JACE8000, but can connect to any BEMS that can accept MODBUS RTU slave devices.

When connected to a BEMS DALI64MODPSU gives you the ability to visualise and make changes, such as time delay, light level, absence / presence mode and load shedding, to the Lighting Control system through a BEMS supervisor.

When integrated with BEMS DALI64MODPSU enables you to automate the control of the colour temperature of the luminaires to match natural circadian rhythms. This creates lighting that makes us feel more alert and productive.

The integral power supply within the DALI64MODPSU provides 150mA of power to the DALI bus eliminating the need for an additional DALI power supply, reducing installation complexity and the associated costs and time.



Product Comparison

	Commission with Light Touch App	Flush Mount	Surface Mount	Addressable DALI Luminaires per system	Lens tilting	Wireless maintenance free switches	MODBUS connection (to BEMS)	Occupancy Zones	Power to DALI bus	Switch Input (Mains)
DALI64F	•	•		64	•	•		16		
DALI64S	•		•	64	•	•		16		
DALI64MODPSUF	•	•		64	•	•	•	16	•	1
DALI64MODPSUS	•		•	64	•	•	•	16	•	1
DALINETF		•								
DALINETS			•							

FEATURES & BENEFITS

- A maximum of 64 DALI luminaires can be connected via DALI Bus.
- DALI scene plates can be added to enable simple and effective scene selection.
- 1 mains switch input can be connected directly to PSU variants.
- Commissioning is performed via Bluetooth using the Light Touch App (Android only).
- Partition and join features enable up to 3 rooms with 2 partitions between them to be grouped, enabling rooms to operate as one entity when one or both partitions are opened.
- DALI switch input modules can be added to connect normal 'push-to-make' switches.
- Wireless switches can also be used for installation convenience.
- Connection to BEMS via MODBUS.
- PSU variants provide 150mA of power to the DALI network.

DLS-DALI Lighting Control System (MODBUS) Technical Specifications

ELECTRICAL

Power input

DALI64MODPSU: 220 – 240Vac 50/60 Hz

DALI64: Powered from DALI bus

DALI64PSU: 220 – 240Vac 50/60 Hz

DALINET: Powered from DALI bus

Power Consumption

DALI64MODPSU: 5W

DALI64: 12mA

DALI64PSU: 3W active, <0.5W static

DALINET: 4mA

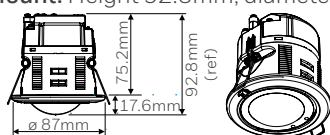
Load Rating

DALI: 64 DALI Ballasts/Drivers

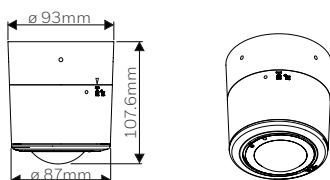
MECHANICAL

Dimensions

Flush Mount: Height 92.8mm, diameter 87mm



Surface Mount: Height 107.6mm, diameter 93mm



Fascia Colour: White (RAL9010)

Weight: Flush 121g Surface 215g

Material: Flame retardant PC/ABS

IP Rating: IP20

Terminal Connections

DALI: Pluggable screwless

MODBUS: Pluggable rising cage clamp

Power: Pluggable rising cage clamp

Switch input: Pluggable rising cage clamp

Cable

DALI: 2 core cable

MODBUS: Screened twisted pair

Power: Derive from appropriate wiring regulations

Switch input: 0.75mm²

Terminal Capacity

DALI: 1 x 0.5-1.5 mm² solid or stranded

MODBUS: 2 x 0.5 mm² solid or stranded

Power: 1 x 0.5-2.5 mm² solid or stranded

Switch input: 1 x 0.5-2.50 mm² solid or stranded

Max Cable Length

DALI: up to 300m - If using 1.50mm² cable

Modbus: 400m

Power: Derive from appropriate wiring regulations

Manual Switch: 10m

ENVIRONMENTAL

Operating Temperature: 0° C to 45° C*.

Storage Temperature: -20° C to 80° C

Humidity: 20% to 80% non-condensing

*Note a difference of ±3°C is required between ambient temperature and temperature of the target to be detected.

CONFORMITY

Conformity: EMC-2014/30/EU, LVD – 2014/35/EU, RoHS-2011/65/EU, RED2014/53EU

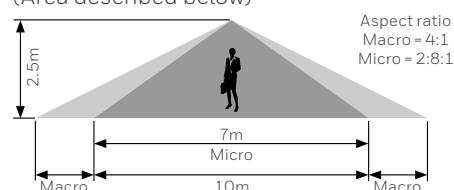
SENSING

Technology: PIR

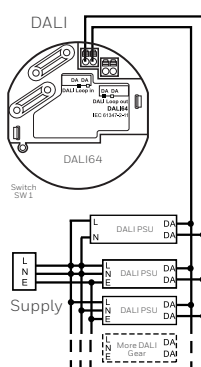
Max recommended mounting height: 3.5m

Points of detection: 155

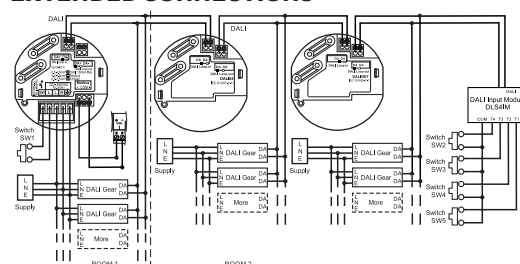
Coverage: 360° (Area described below)



BASIC CONNECTIONS



EXTENDED CONNECTIONS



ORDER CODES

DALI64MODPSUF	Mains powered flush mount DALI Lighting Controller with 150mA Integral Power Supply and MODBUS connection.
DALI64MODPSUS	Mains powered surface mount DALI Lighting Controller with 150mA Integral Power Supply and MODBUS connection.
DALI64F	Bus powered, flush mount DALI Lighting Controller
DALI64S	Bus powered surface mount DALI Lighting Controller
DALINETF	Bus powered flush mount DALI Network Sensor.
DALINETS	Bus powered surface mount DALI Network Sensor.
SURFMT	Surface Mount Kit
LOCKRING	Secure Flush Mount Adaptor
28001987	DALI Touchplate - Multi – 3 scenes, dim up/ down, broadcast toggle – recall max/off- DALI BUS 10mA
28001989	DALI Touchplate - Select – 6 scenes, activate/deactivate - DALI BUS 10mA
DLS4IM	DALI Switch input module
LSHDQBL2210	10 metre DALI / QuickLink lead
LSHDQBL226	6 metre DALI / QuickLink lead
DLSDSLW765	DALI HD Dimming Lead 7 core, 5 metre
BESA6PSR	Connect BESA Box 6 Pole
00030366	Wireless switch 1 gang
00030666	Wireless switch 2 gang
TP3006	T Piece connector 6 pole
COMMISSIONING & END USER TOOLS	
LIGHT TOUCH BY HONEYWELL	Commissioning App for DALI lighting