

DDBC320-DALI

DALI-2 Driver Controller



Specification Sheet

Controllers > DALI Controllers



Full DALI-2 control solution with inbuilt DALI power supply and driver power management

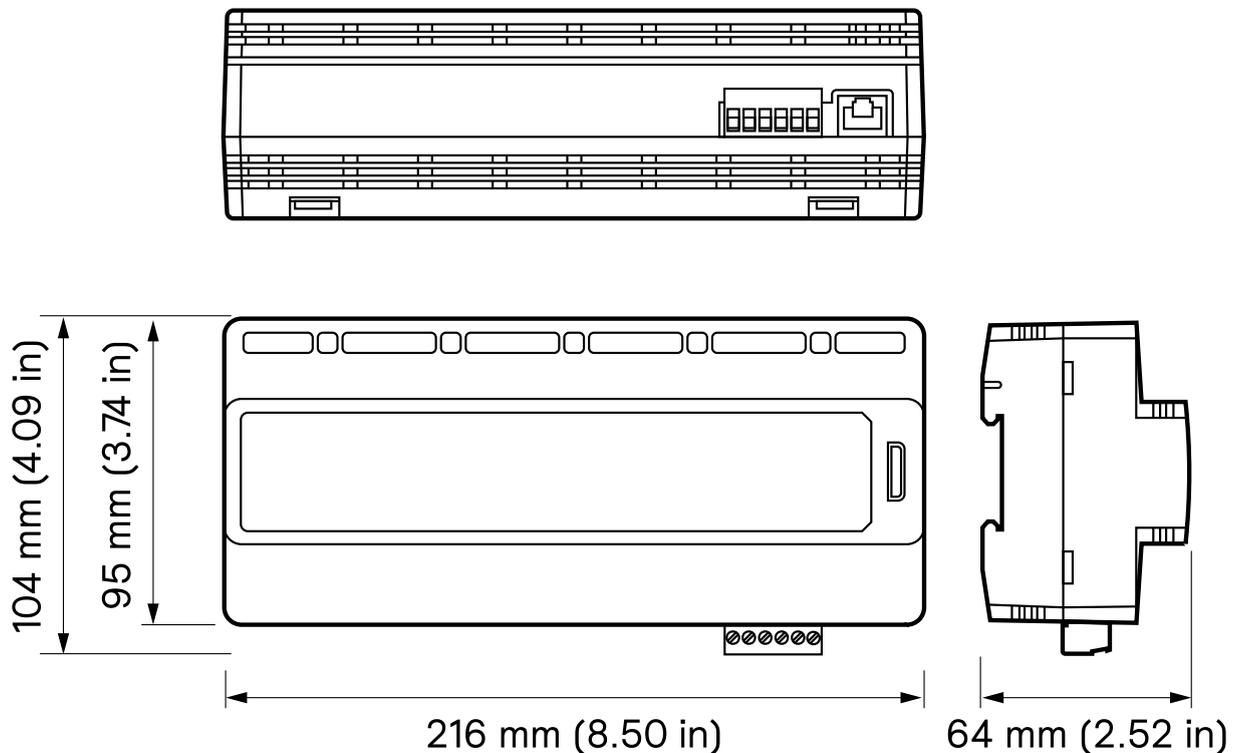
The Dynalite DDBC320-DALI is a three-line controller, ideal for large-scale projects that need to combine a powerful all-in-one DALI control solution with the full DyNet feature set.

This controller operates seamlessly with all other Dynalite controllers, sensors, user interfaces, and head-end software, and includes a secured Ethernet port for network communication.

Key Features

- **Single-master solution** - Compatible with a range of DALI fittings and devices, including fluorescent drivers, electronic low voltage transformers, LED fixtures, emergency lighting fixtures, and Dyalite DALI sensors and user interfaces.
- **Compatible with DALI 207 and DALI 209** - Provides control of tuneable white and RGBWAF luminaires.
- **Driver standby power elimination** - Internal switched relay automatically isolates the power circuit when all drivers are dimmed to 0%.
- **DALI auto-enumeration** - Provides automatic enumeration of DALI drivers when powered on and enables self repair of the network system if a DALI driver fails.
- **Silent enumeration** - Constantly checks the DALI bus for changes, automatically enumerating individual driver replacements with no disruption to lighting performance.
- **UL 924 input** - Integrates seamlessly with compatible emergency systems.
- **Fully scalable network solution** - Direct mapping from DALI to DyNet eliminates DALI-imposed limits such as maximum group size.
- **Inbuilt Ethernet port** - Directly connecting to a site's LAN, the device can securely report its status and pass network messages via the Dyalite PDDEG-S (max 25 controllers per PDDEG-S).
- **Integral DALI bus power supply** - Removes the need for provision of a separate external power supply and reduces distribution board wiring complexity.
- **Driver management tools** - Includes lamp and driver status reporting, driver run time tracking, and emergency test reporting.
- **Onboard DALI test function** - Use the controller's service switch to set all connected lamps to full brightness, or flash on/off for a 5-minute test window, without additional software or input devices.
- **Onboard line override switch** - Set each DALI line's connected drivers to 100% or 0% brightness without additional software or input devices.

Dimensions



Specifications

Electrical	
Supply Type	Single-Phase
Supply Voltage	100-277 VAC
Supply Current	0.5 A
DyNet DC Output Voltage	12 VDC
DyNet DC Output Current	300 mA
Switched Outputs	3 x feed-through
Maximum CH-CH Voltage	500 VAC
IEC Overvoltage Category	III

Control	
Communication Ports	1 x RS-485 1 x Ethernet (10/100 baseT)
Supported Protocols	DyNet TCP/IP (TCP, UDP) IPv4 IPv6
Network Security Layer	TLS 1.2
Control Channel Outputs	3 x DALI-2 (DALI-2 certified and DALI registered drivers only) (Supports DALI 207 & DALI 209 Tuneable White / RGBWAF)
Dry Contact Inputs	1 (AUX / UL 924)
User Controls	1 x service switch 3 x DALI line override switch 3 x DALI line test button
Indicators	1 x diagnostic LED 3 x DALI bus status LED 1 x Ethernet activity LED
Diagnostic Functions	Lamp failure reporting Driver failure reporting Driver runtime tracking Switched output runtime tracking Emergency test reporting Device online/offline status

Physical	
Dimensions	95 x 216 x 64 mm (3.74 x 8.50 x 2.52 in)
Packed Weight	0.6 kg (1.32 lb)
Construction	Polycarbonate DIN rail enclosure (12 unit)
Serial Ports	1 x RJ45 1 x 6-way pluggable screw terminal
Serial Port Conductor Size	0.3-2.5 mm ² (#22-12 AWG)
DALI Terminals	1 x 6-way screw terminal
DALI Terminal Conductor Size	0.2-5 mm ² (#24-10 AWG)
Switched Terminals	1 x 8-way screw terminal (6 used, see Installation Instructions)
Switched Terminal Conductor Size	0.2-5 mm ² (#24-10 AWG)
Supply Terminals	1 x 3-way screw terminal
Supply Terminal Conductor Size	0.2-5 mm ² (#24-10 AWG)

Environment	
Operating Temperature	-20° to 50°C ambient (-4° to 122°F)
Storage/Transport Temperature	-25° to 70°C ambient (-13° to 158°F)
Relative Humidity	≤90% non-condensing
IEC Pollution Degree	II
Installation Note	For indoor installation only

Compliance	
Certifications	DALI-2, CE, RCM, UL/cUL, FCC, ISED, UKCA, RoHS

Diagnostic Note

- Dynalite System Manager required for analysing diagnostic data.
- The availability of some diagnostics is dependent on driver type.



Output Channel Ratings

Load Type	UL/cUL (per channel)
Electronic Driver	16 A, 277 VAC
Pilot Duty	6 A, 120 VAC 3 A, 240 VAC 2.6 A, 277 VAC
Inrush Current	500 A
Load Type	CE (per channel)
Electronic Driver	20 A, 240 VAC
Inrush Current	500 A
Total Device Load	
≤60 A	

Control Channel Ratings

DALI	
Guaranteed Current	220 mA
Maximum Current	250 mA
Maximum Drivers/Channel	64
Maximum Drivers/Device	192
Insulation	Basic

Note: Auto restart on DALI output overload or short circuit

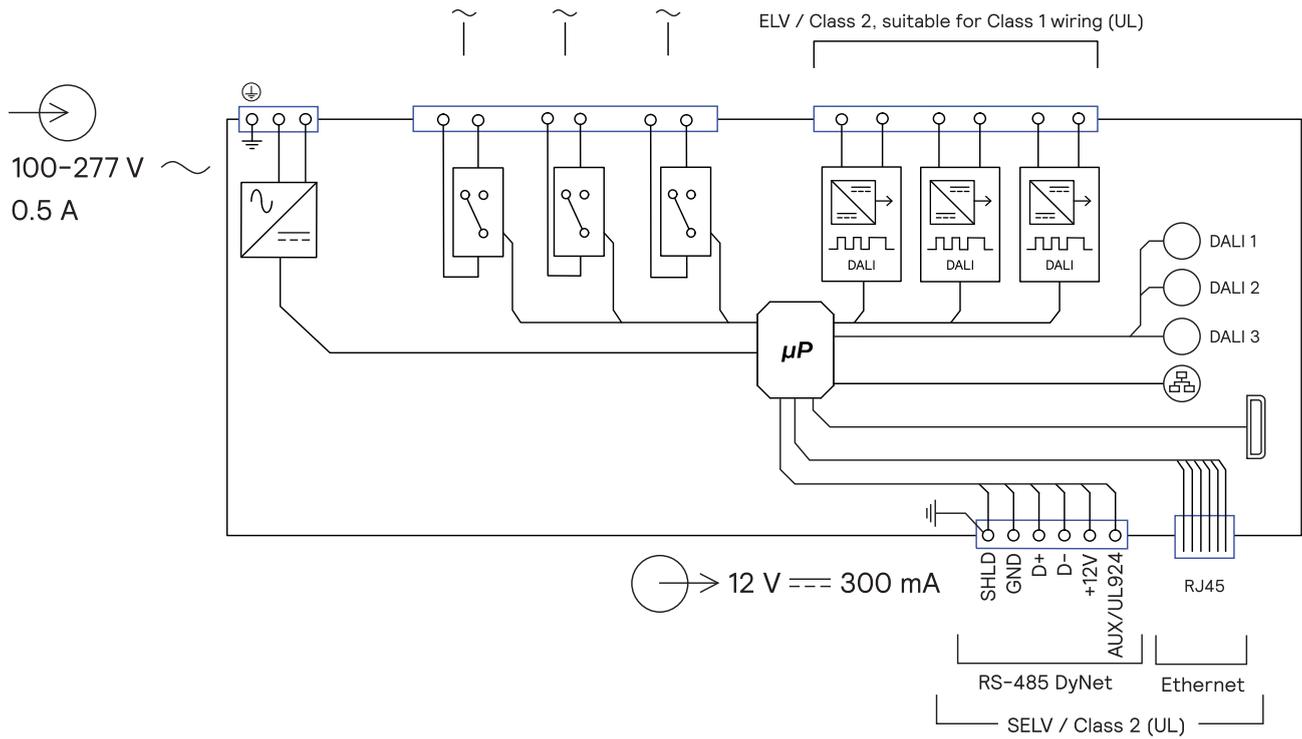
DALI Device Count

The table below shows the maximum number of DALI drivers and Dyalite DALI devices that can be connected to the DALI bus at the same time.

These devices include Dyalite DALI occupancy sensors and the DPMI940-D dry contact interface.

Dyalite DALI Devices	DALI Drivers
10	64
11	59
12	54
13	49
14	44
15	39
16	34

Electrical Drawing



Ordering Codes

Product	12NC
DDBC320-DALI	913703079709