

DDBC516FR

Signal Dimmer Controller



Specification Sheet

Controllers > DALI Controllers



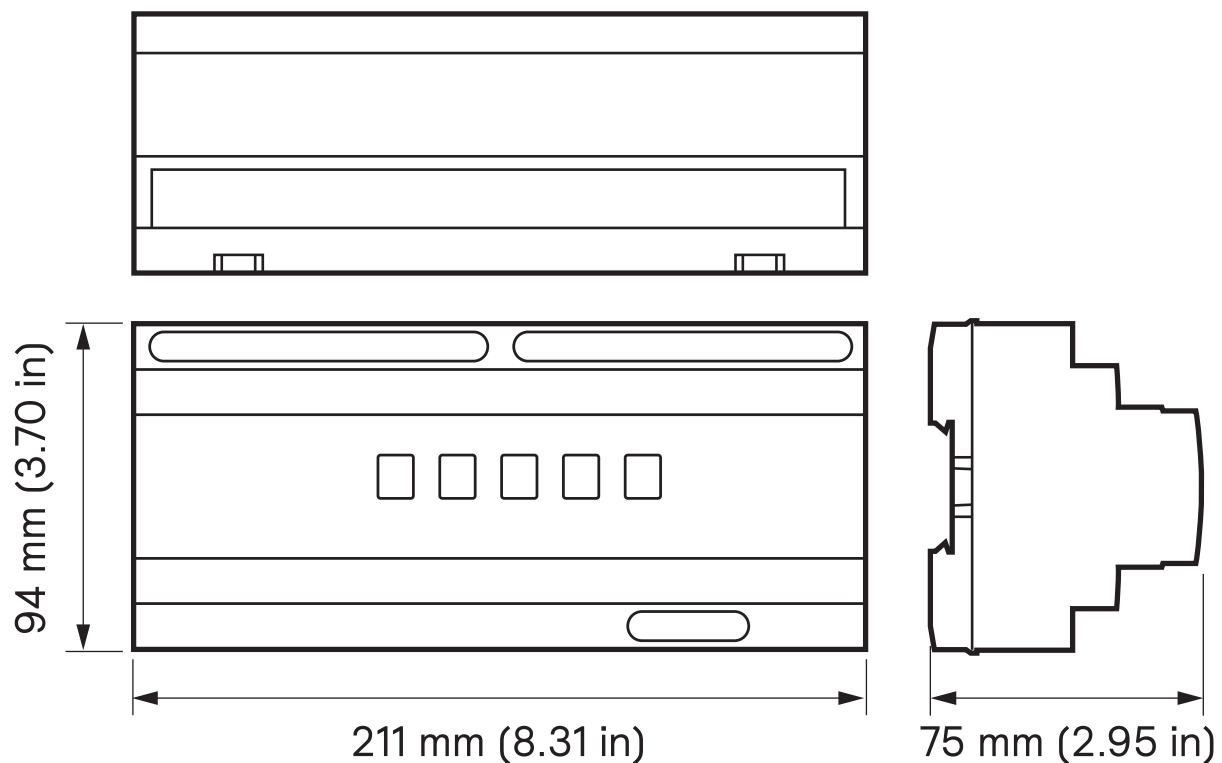
Flexible control of DALI and 1-10 V drivers

The Dynalite DDBC516FR is a five-channel device with integrated relay outputs for controlling DALI drivers. Each control output is selectable to DALI addressed, DALI broadcast, 1-10 V, or DSI.

Key Features

- **Multiple protocols supported** – Each of the five control outputs supports DALI addressed (≤ 10 DALI loads/channel), DALI broadcast (≤ 10 DALI loads/channel), 1–10 V (≤ 10 mA sink or source/channel), or DSI (≤ 5 DSI loads/channel).
- **Built-in energy savings** – Control signals can be programmed to operate in tandem with five internal switched relay outputs, which will automatically isolate the power circuit when all associated channels are at 0%. This is a useful feature as DALI drivers still draw significant power when lamps are turned off via a DALI command.
- **Integral DALI bus power supply** – Removes the need for an additional external device.
- **Flexible mounting** – DIN rail mounting clips designed for installation into the distribution board supplying power to the controlled lighting circuits.
- **Inbuilt diagnostics** – Features lamp and driver failure reporting, run time tracking for each driver and switched output, and Device Online/Offline status indication.

Dimensions



Specifications

Electrical		Physical	
Supply Type	Single-Phase	Dimensions	94 x 211 x 75 mm (3.70 x 8.31 x 2.95 in)
Supply Voltage	100-240 VAC	Packed Weight	0.8 kg (1.76 lb)
Supply Current	0.15 A	Construction	Polycarbonate DIN rail enclosure (12 unit)
DyNet DC Output Voltage	12 VDC	Serial Ports	2 x RJ12 1 x 6-way pluggable screw terminal
DyNet DC Output Current	120 mA	Serial Port Conductor Size	0.3-2.5 mm² (#22-12 AWG)
Relay Outputs	5 x 16 A feed-through	Control Terminals	5 x 2-way screw terminal
Maximum CH-CH Voltage	300 VAC (UL) 400 VAC (CE)	Control Terminal Conductor Size	≤2.5 mm² (#12+ AWG)
Maximum CH-XX-CH Voltage	480 VAC XX = unpopulated channel for isolation; See Installation Instructions for correct terminations for phase separation.	Output Terminals	5 x 2-way screw terminal
IEC Overvoltage Category	III	Output Terminal Conductor Size	≤5 mm² (#10+ AWG)
Control		Supply Terminals	3 x screw terminal
Communication Ports	1 x RS-485	Supply Terminal Conductor Size	≤5 mm² (#10+ AWG)
Supported Protocols	DyNet	Environment	
Control Channel Outputs	5 DALI addressed/broadcast, 1-10 V, DSI	Operating Temperature	0° to 40°C ambient (32° to 104°F)
Dry Contact Inputs	1 (AUX)	Storage/Transport Temperature	-25° to 70°C ambient (-13° to 158°F)
User Controls	1 x service switch 5 x channel override	Relative Humidity	≤90% non-condensing
Indicators	1 x diagnostic LED 5 x channel status LED	IEC Pollution Degree	II
Diagnostic Functions	Lamp failure reporting Driver failure reporting Driver runtime tracking Device online/offline status	Installation Note	For indoor installation only
		Compliance	
		Certifications	CE, RCM, UL, 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	CH1-CH5 (per channel)
General Use	16 A, 277 VAC
Incandescent	16 A, 277 VAC
Standard Driver	16 A, 277 VAC
Electronic Driver	16 A, 277 VAC
Motor	16 FLA (1 HP), 120 VAC 14.5 FLA (2½ HP), 240 VAC 14.1 FLA (3 HP), 277 VAC
Pilot Duty	6 A, 120 VAC 3 A, 240 VAC 2.6 A, 277 VAC
Inrush Current	500 A
Total Device Load	
≤80 A	

Control Channel Ratings

DALI/DSI	
Guaranteed Current	20 mA
Maximum Current	250 mA
Maximum Drivers/Channel	10
Maximum Drivers/Device	50
Insulation	Basic
1-10 V	
Current (Sink)	10 mA
Current (Source)	10 mA

