

# 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 for controlling DALI drivers. Each control output is selectable to DALI addressed, DALI broadcast, 1-10 V, or DSI.

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## Key Features

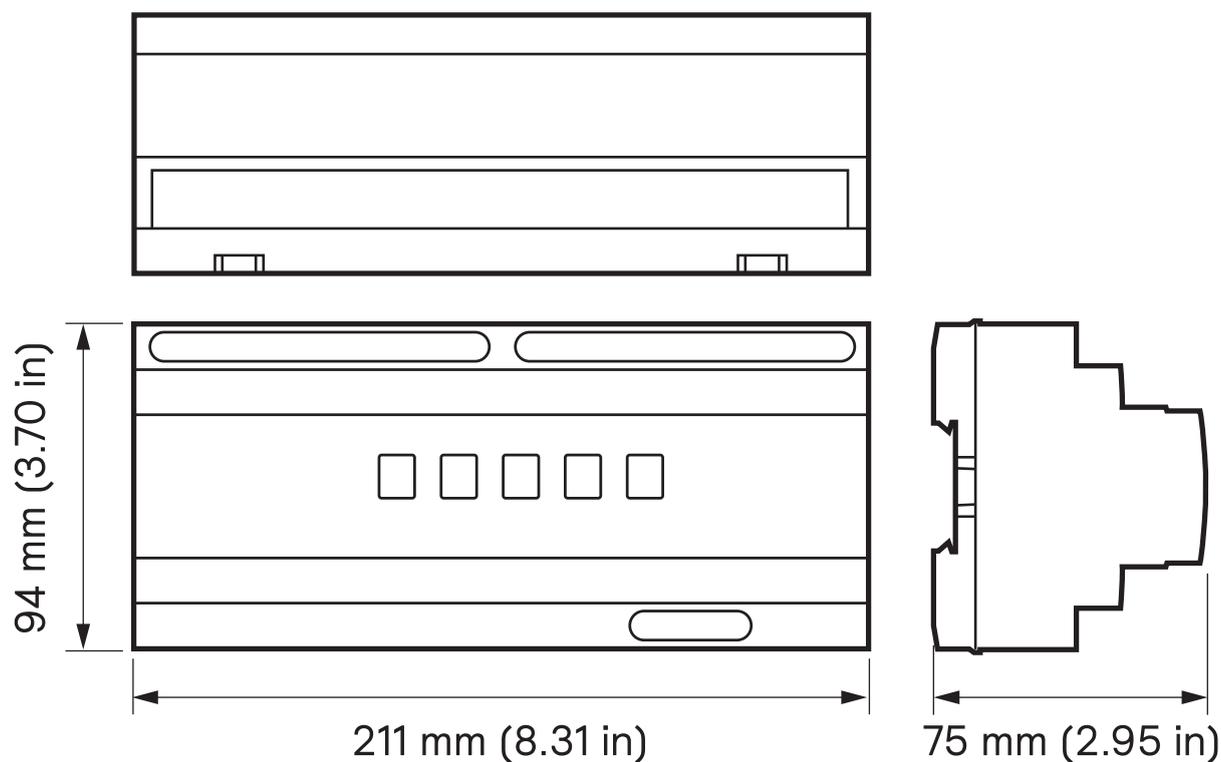
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- **Multiple protocols supported** - Each of the five control outputs supports DALI addressed ( $\leq 10$  DALI loads/channel), DALI broadcast ( $\leq 10$  DALI loads/channel), 1-10 V ( $\leq 10$  mA sink or source/channel), or DSI ( $\leq 5$  DSI loads/channel).
- **Built-in energy savings** - Control signals can be programmed to operate in tandem with five internal switched 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.

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## Dimensions

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## Specifications

Electrical	
Supply Type	Single-Phase
Supply Voltage	100-240 VAC
Supply Current	0.15 A
DyNet DC Output Voltage	12 VDC
DyNet DC Output Current	120 mA
Switched Outputs	5 x 16 A feed-through
Maximum CH-CH Voltage	300 VAC (UL) 400 VAC (CE)
Maximum CH-XX-CH Voltage	480 VAC
	XX = unpopulated channel for isolation; See Installation Instructions for correct terminations for phase separation.
IEC Overvoltage Category	III

Control	
Communication Ports	1 x RS-485
Supported Protocols	DyNet
Control Channel Outputs	5 DALI addressed/broadcast, 1-10 V, DSI
Dry Contact Inputs	1 (AUX)
User Controls	1 x service switch 5 x channel override
Indicators	1 x diagnostic LED 5 x channel status LED
Diagnostic Functions	Lamp failure reporting Driver failure reporting Driver runtime tracking Device online/offline status

Physical	
Dimensions	94 x 211 x 75 mm (3.70 x 8.31 x 2.95 in)
Packed Weight	0.8 kg (1.76 lb)
Construction	Polycarbonate DIN rail enclosure (12 unit)
Serial Ports	2 x RJ12 1 x 6-way pluggable screw terminal
Serial Port Conductor Size	0.3-2.5 mm <sup>2</sup> (#22-12 AWG)
Control Terminals	5 x 2-way screw terminal
Control Terminal Conductor Size	≤2.5 mm <sup>2</sup> (#12+ AWG)
Output Terminals	5 x 2-way screw terminal
Output Terminal Conductor Size	≤5 mm <sup>2</sup> (#10+ AWG)
Supply Terminals	3 x screw terminal
Supply Terminal Conductor Size	≤5 mm <sup>2</sup> (#10+ AWG)

Environment	
Operating Temperature	0° to 40°C ambient (32° to 104°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	CE, RCM, UL, FCC, ISED, UKCA, RoHS

## Diagnostic Note

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



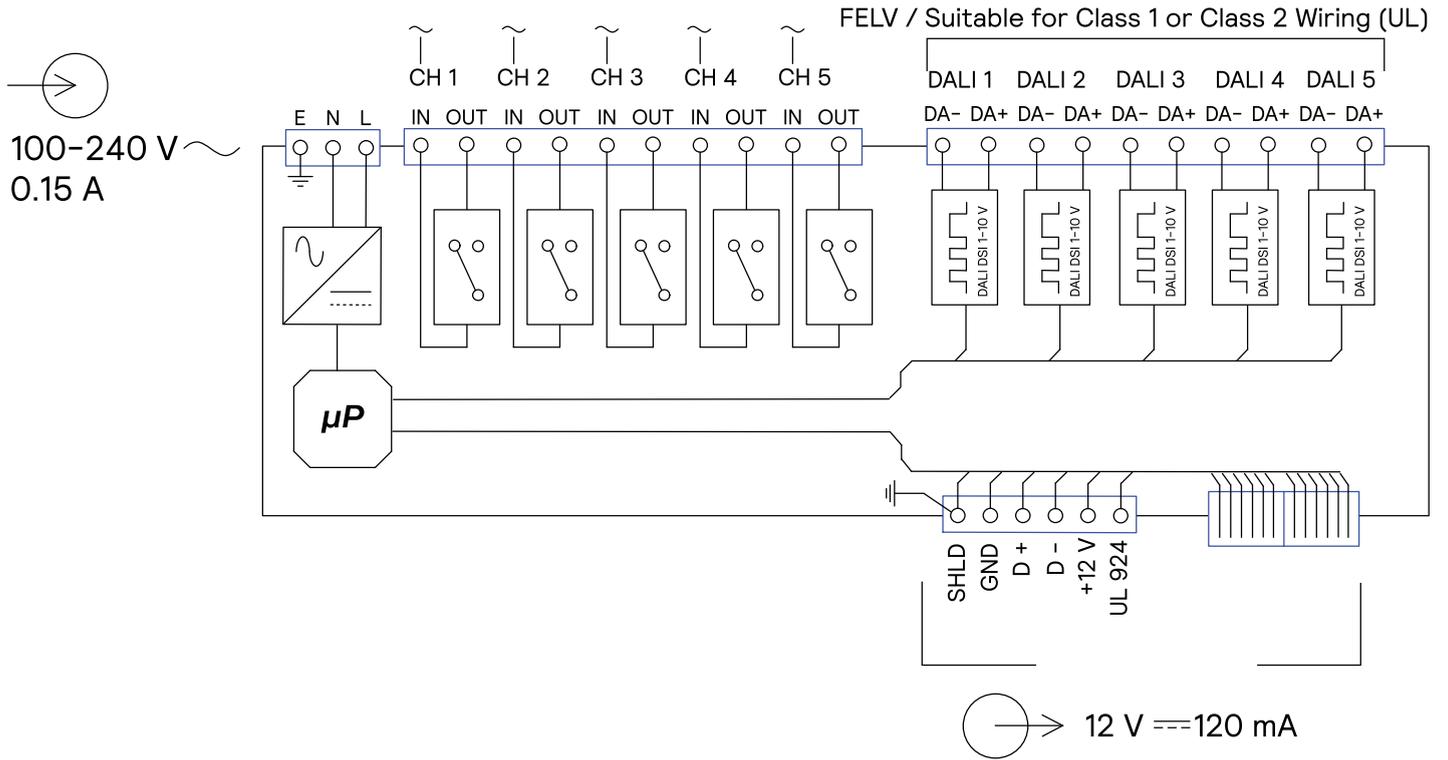
## Output Channel Ratings

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
<b>Total Device Load</b>	
≤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

Electrical Drawing



Ordering Codes

Product	12NC
DDBC516FR	913703031509