

EN 499 8-Channel Latching Relay Unit



The DIGIDIM 8-Channel Latching Relay Unit is an eight-channel controller that supports high-inrush loads up to 20 A per output. Each output is controlled individually, and any mains-supply phase can be connected on any of them.

Conceived for installations that use a lot of power, such as high-bay luminaires and HID lamps, the 499 can handle short-lived, high-peak inrush currents during switch-on of loads.

The unit has a lever switch per circuit that allows manual switching. Among other benefits, you can see the position of the relays at any moment, turn on and off the lights for testing and commissioning purposes, or switch on and off the loads even if the unit loses power. If power is disconnected to the unit, the relays stay in the same position.

The 499 can be networked through DALI, SDIM or DMX communication into a DIGIDIM or Imagine lighting control system, and it is DIN-rail mounted for ease of installation.

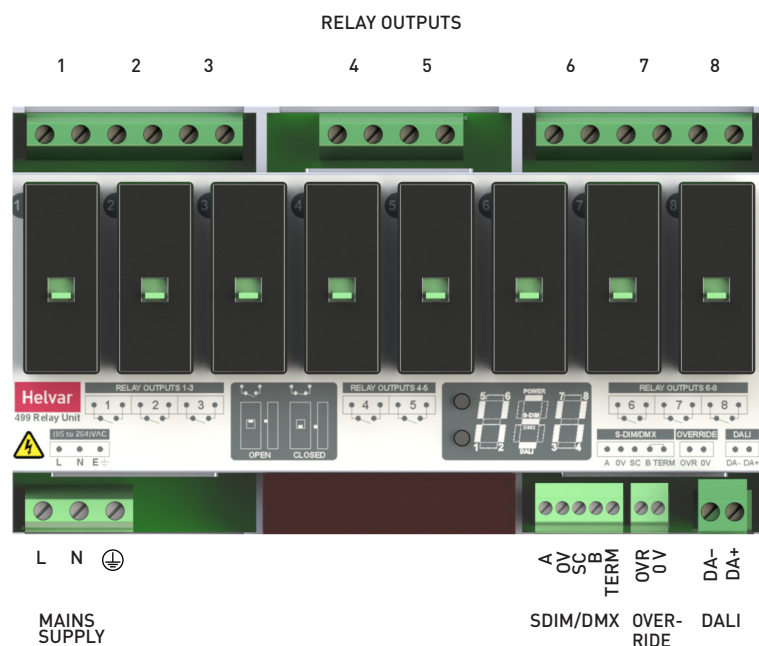
It has an intuitive LED segment display, as well as push buttons for monitoring, manual configuration and control purposes.



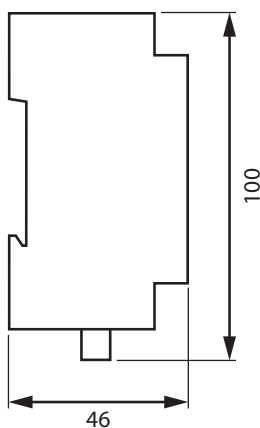
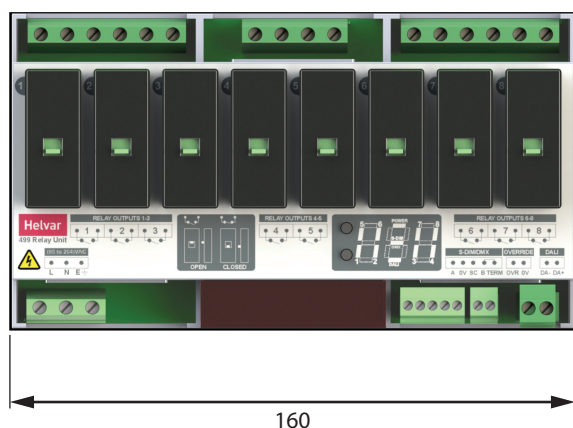
Key Features

- Latching, single-pole, bistable relays with manual control.
- Wired override input to allow for external triggers.
- Manual control switch per channel.
- LED-segment display and push buttons.
- Can operate as:
 - 8 individual channels (8 × DALI addresses);
 - 4 sets of 2 channels (4 × DALI addresses); or
 - 2 sets of 4 channels (2 × DALI addresses).
- Staggered switch-on with 100 ms delay per relay.
- All functions can be programmed with Helvar's Toolbox and Designer software.

Connections



Dimensions (mm)



Technical Data

Connections

Mains/relay:	Up to 4 mm ² solid core or up to 2.5 mm ² stranded
DALI:	0.5 mm ² – 1.5 mm ² stranded or solid core. Max. length: 300 m @ 1.5 mm ² .
SDIM/DMX:	0.22 mm ² – 1.5 mm ² low-loss RS485 type multistranded, twisted and shielded
Cable rating:	Mains cables, relay cables and DALI cables must be mains rated.

Power

Mains supply:	100 VAC – 240 VAC (nominal) 85 VAC – 264 VAC (absolute) 45 Hz – 65 Hz
Power consumption:	0.3 W
Internal losses:	0.6 W per channel at 20 A
External protection:	The mains supply must be protected at 6 A maximum. The relays must be protected by a 20 A Type C MCB maximum.
Isolation:	Between every connector, with this exception: SDIM 0 V and OVR 0 V are NOT isolated from each other.

DALI

DALI addresses:	8, 4, or 2
DALI consumption:	2 mA

Inputs

Communication:	DALI, SDIM and DMX
Override:	Wired override input
User interface:	2 push buttons for configuration
Channels:	8
Relay contacts:	High inrush 500 A / 2 ms
Relay voltage:	240 VAC (400 VAC between channels)
Max. load per contact:	20 A resistive / incandescent; 20 A, PF 0.6 / fluorescent
Number of devices:	For ballasts, quantity is limited by MCB; refer to manufacturer's data. These are power relays and are not suitable for extra-low voltage operation. Where power relays are used to control contactors, snubbers must be fitted.

Mechanical data

Dimensions:	160 mm × 100 mm × 46 mm
Housing:	9 U white plastic (polycarbonate) DIN-rail case
Weight:	425 g
Mounting:	DIN rail (installation in switchgear/controlgear cabinet only)
IP code:	IP30 (IP00 at terminals)

Operating and storage conditions

Ambient temperature:	0 °C to +40 °C
Relative humidity:	Max. 90 %, noncondensing
Storage temperature:	–10 °C to +70 °C

Conformity and standards

DALI standard:	EN 62386
Emission:	EN 55015
Immunity:	EN 61547
Safety:	EN 61347-2-11
SDIM:	Helvar SDIM protocol
DMX:	DMX512-A protocol (max. refresh rate: 33 Hz)
Environment:	Complies with WEEE and RoHS directives.