4-Channel Ballast Controller (474)

The DIGIDIM 474 is a 4-channel ballast controller fitted with high-inrush relays rated at 16 A per channel. These relays handle short-lived high peak currents during switch-on of loads.

The outputs can be configured to match common ballast control loads including 0/1–10 V, DSI®, DALI broadcast and PWM. They can be set to be independent of, or paired with, relay channels. The 474 ballast controller can operate with a Helvar DIGIDIM or Imagine lighting control system. It is a DIN rail mounted device for ease of installation.

The 474 ballast controller has an intuitive LED segment display and push buttons for monitoring, manual configuration and control purposes.

Key Features

- High inrush specification relays
- Wired override input
- LED segment display and push buttons
- Multiple output configurations of:
  - 0–10 V: source 10 mA
  - 1–10 V: sink 100 mA
  - DALI broadcast: source 100 mA
  - DSI®: source 100 mA
  - PWM: source 100 mA

Connections

DSI® is a registered trademark of Tridonic GmbH.

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www.helvar.com
Technical Data

Connections
Mains/relay/output: Solid core: up to 4 mm²
Stranded: 2.5 mm²
DALI: 0.5 mm² – 1.5 mm²
Max. length: 300 m @ 1.5 mm²
SDIM/DMX: 0.22 mm² – 1.5 mm² low-loss
RS485 type (multistranded, twisted and shielded).
Max. length: 1000 m (low-loss cable). Examples: Belden 8102 or Alpha 6222C.
Note: One twisted pair for A and B (85 Ω to 100 Ω impedance),
one core or twisted pair for 0 V,
and shield for screen.

Power
Mains supply: 100 VAC – 240 VAC (nominal)
85 VAC – 264 VAC (absolute)
45 Hz – 65 Hz
Power consumption: 2.4 W [minimum] to 11 W
[all outputs fully loaded]
External protection: The mains supply must be
protected at 6 A maximum. The
relays must be protected by a
16 A Type C MCB maximum.
DALI consumption: 2 mA

Inputs
Communication: DALI, SDIM and DMX
Override: Wired override input
User interface: 2 push buttons for configuration

Outputs
0–10 V: Source 10 mA
1–10 V: Sink 100 mA
DALI/DSI®: (50 ballasts) Source 100 mA
PWM +/-: (50 ballasts) Source 100 mA

Relays
Channels: 4
Relay contacts: High inrush (800 A at 200 µs),
single pole normally open (SPNO)
Max. load per contact: 16 A resistive/incandescent;
10 A HID (cos φ = 0.6).
For ballasts, quantity is
limited by MCB: refer to the
manufacturer’s data.

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
EMC emission: EN 55015
EMC immunity: EN 61547
Safety: EN 61347-2-11
DALI: According to DALI standard
IEC 62386, with Helvar additions
SDIM: According to Helvar SDIM
protocol
DMX: DMX512-A protocol
(max. refresh rate: 33 Hz)
Isolation: All connectors are isolated from
each other, except for SDIM/
DMX to Override, and ballast
output 1–2 to ballast output 3–4.
Environment: Complies with WEEE and RoHS
directives.

Mechanical data
Dimensions: 160 mm × 90 mm × 58 mm
Housing: DIN-rail case; 9U
Weight: 280 g
Mounting: DIN rail (installation in
switchgear/controlgear cabinet)
IP code: IP30 (IP00 at terminals)