

# Product data sheet *Imagine*

## HES98020 Ballast Controller

The Imagine HES98020 rack mounted control module contains two identical output units within a moulded case and is designed as an exchangeable module for fitting into ESR dimmer cabinets. It can be connected to 0-10V, 1-10V and DSI® electronic ballasts. The dimmer is provided with a three-digit LED display, normally indicating the current output level and four push buttons for manual operation and address setting.

### Key Features

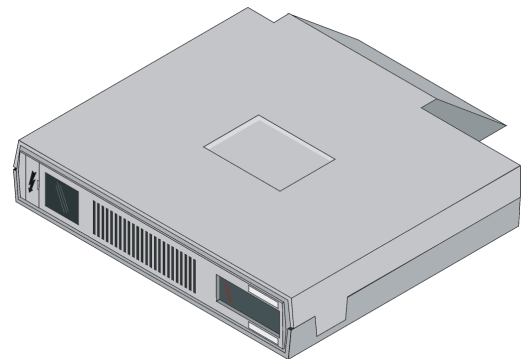
- Full output unit status feedback via SDIM control bus permitting full system monitoring.
- The unit has two freely configurable control outputs that can be set as current sources or current sinks depending on the type of load connected.
- Override input for a switching contact to allow the channels to be set to a pre-programmed level in conjunction with lighting router only.

### Installation Notes

- The output module is specifically designed to be fitted into the ESR dimmer rack stacker unit.
- It can be connected to 0-10V, 1-10V and DSI® electronic ballasts or other analogue control equipment.
- It can switch power up to 15 electronic ballasts and control up to 50 according to EN60929.
- Analogue control output connection (if used) are via a connector on the right hand side of the module. Power connections are made using terminal screws under the terminal cover on the left-hand side of the front of the dimmer. All other connections are made at the rear of the dimmer unit via a plug-in connector.

### Power Connection Table

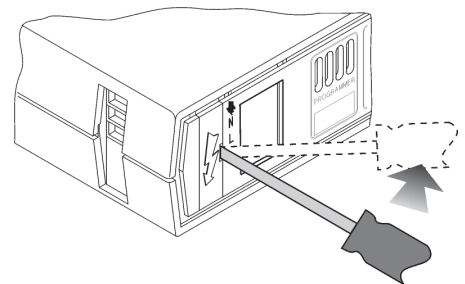
Dimmer module	Distribution Panel
Terminal $\perp$	Earth
Terminal N.	Neutral
Terminal LA.	Ch 1 live feed from MCB.
Terminal LB.	Ch 2 live feed from MCB.
Terminal CHA.	Ch 1 Relay output terminal
Terminal CHB.	Ch 2 Relay output terminal



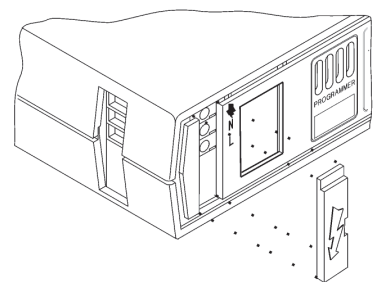
HES98020 Dimmer Module

### Connections

- 1 Removing the power terminal cover



- 1a



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### Technical Data

#### Electrical Input

Mains: 180 - 260 V AC, 45 - 65 Hz  
(90 - 130 V AC to order)

Power Consumption: 12 W off load

#### Electrical Output

Control Output: 100 mA drive, capable of driving up to 50 ballasts

Output Power: 20 A relay for switching of mains to ballasts

Dimming Curve	HES98020
0	Non dimming (for switched loads)
1	1-10V analogue (EN60929)
2	0-10V analogue
3	Pulse Width Modulation
4	3.5-10V analogue (EL-AC)
5	Switched Pulse Width Modulation
6	DSI (Tridonic)
7	Switched DSI
8	Pulse Width Modulation with Relay-applied delay

#### Control Inputs/Outputs

Digital Input: RS485 S-DIM protocol (Level and fade time)

Analogue Output: 0...+10 V (Level)

#### Operating Conditions

Ambient Temperature: 0...+40° C

Relative Humidity: 90% max, non-condensing

Storage Temperature: -10°C...+70°C

#### Mechanical Data

Case: ABS polycarbonate blend two-part moulding,  
130°C Vicat UL94-V0 (Halogen Free)

#### Conformity & Standards

Emission: EN 50 081

Immunity: EN 50 082

RFI: EN 55 014

#### Safety

Safety: EN 60 950

IP Rating: 30

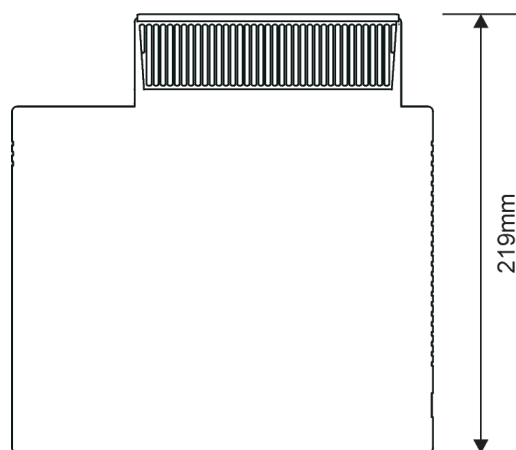
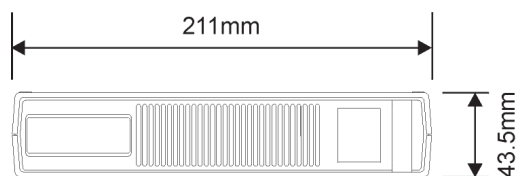
Isolation: 4 kV

UL File No: EN191962

*Data subject to change without notice*

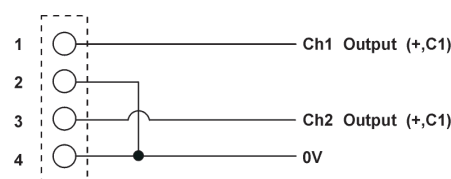
Hawley Mill, Hawley Road, Dartford, Kent, DA2 7SY United Kingdom Tel: +44 (0)1322 222211 Fax: +44 (0)1322 282216

### Dimensions



### Connections

#### Control Output Connection



*Note: Position 1 on right when viewed from side*

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