

# 950 Router Datasheet

The 950 Router is a certified DALI-2 Multi Master Application Controller capable of controlling DALI-2 Lighting, DALI-2 Controls as well as Helvar’s unique range of loads and controls which also connect to the DALI-2 network.

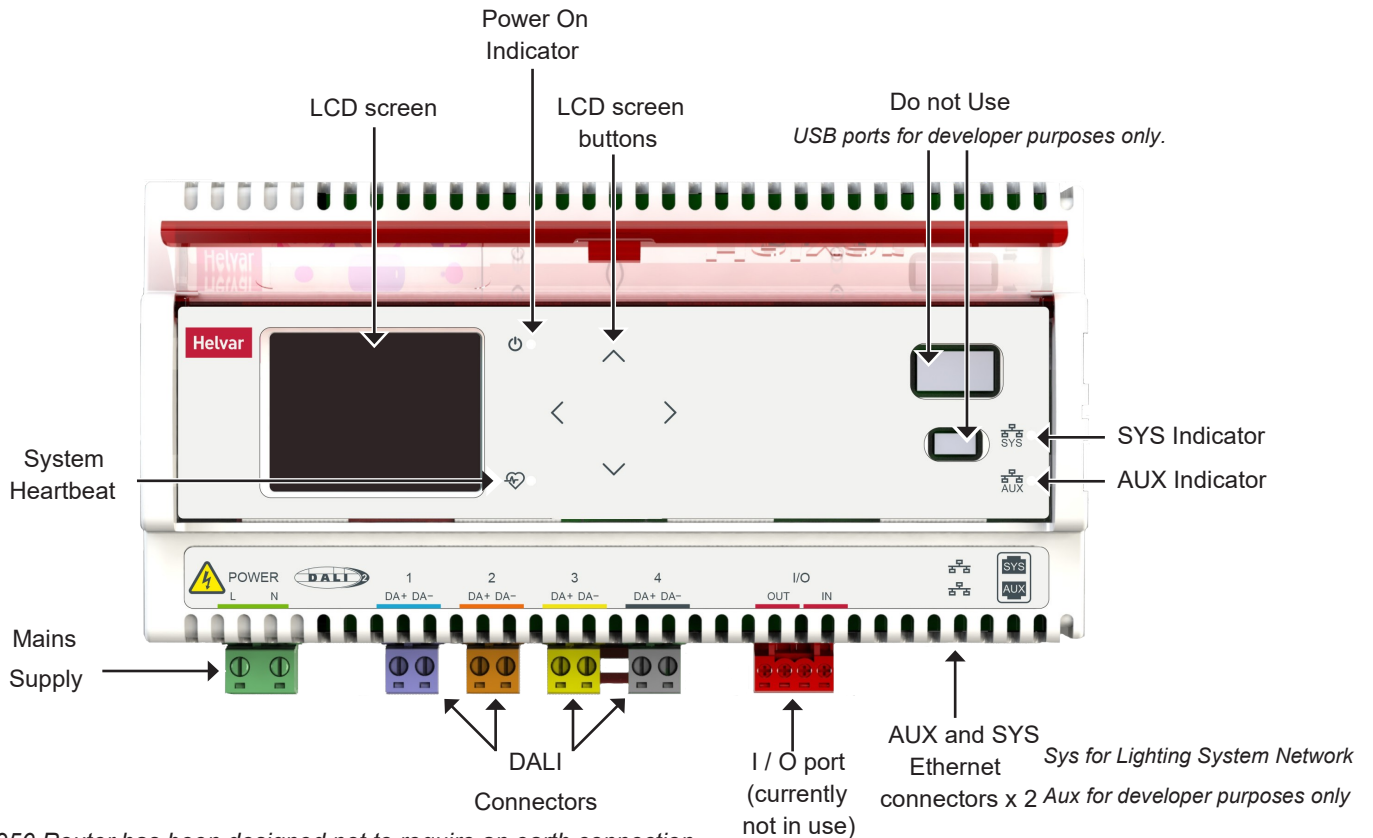
Control and power up to four DALI-2 networks with the 950 Router. Scale up to large and complex projects by networking multiple Imagine Routers together using standard TCP/IP Ethernet connection.

Programming can be carried out using Helvar’s Designer software. All programming data is stored within the system itself eliminating a central point of failure and the need to always program with the latest saved configuration file.



## Key Features

- DALI-2 Certified Multi-master application controller.
- Support for 512 DALI devices (128 per subnet consisting of 64 lighting and Helvar DigiDim services + 63 DALI-2 Controls. Address 128 reserved for Application Controller).
- Built in LCD for DALI network testing and alerts display.
- Built-in real-time clock.
- Can be networked together to form large scalable systems.
- Compatible with other Helvar routers (905/910/920).
- Integration with other building systems.
- LightOverTime Circadian Rhythm Control.
- No central database required for system operation.



Note: The 950 Router has been designed not to require an earth connection.

Note: Where DALI cable has screen, terminate to cabinet earth.

# Technical Data



## Connections

Mains cable: Solid core up to 2.5 mm<sup>2</sup>  
Stranded up to 2.5 mm<sup>2</sup>

Note: The 950 Router has been designed not to require an earth connection.

Note: Terminate all DALI screen cables to cabinet earth.

DALI cable: 0.5 mm<sup>2</sup> – 2.5 mm<sup>2</sup>  
Max. length: 300 m @ 1.5 mm<sup>2</sup>

Ethernet: 2 × RJ45 10/100/1000 Mb/s, Cat 5E up to 100 m  
(Auto MDI/MDI-X crossover)

Sys for Lighting System Network  
Aux for developer purposes only

## Power supply

Note: See router variants section below.

Mains supply: 240 V: 220 VAC – 240 VAC (nominal)  
198 VAC – 264 VAC (absolute)  
45 Hz – 65 Hz

110V: 100 VAC – 120 VAC (nominal)  
90 VAC – 140 VAC (absolute)  
45 Hz – 65 Hz

Power factor: >0.95 at full load

Power consumption: 35 W (All DALI subnets fully loaded)

Power circuit protection: Internal fuse. External protection according to supply wiring, max. 6 A.

## DALI Network Limitations

DALI-OUT current: 4 × 240 mA (guaranteed)  
4 × 250mA (maximum)

## Mechanical data

Dimensions: 10U – 177 mm x 99.5 mm x 58 mm

Weight: 460 g

Mounting: DIN Rail. Keep the Ethernet cable separate from all mains and DALI wirings.

IP code: IP20 (IP00 at connectors)

LCD: Colour display 320x240px

## 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 data transfer: DALI-2 Application Controller (Multi Master)  
IEC62386 Part 101, 103  
See DALI Alliance Website for full detail of supported parts <https://www.dali-alliance.org/products>

EMC emission: EN 55032 Class A, EN 55015

EMC immunity: EN 55024, EN 61547

Safety: EN 61347

Environment: Complies with WEEE and RoHS directives.

Colour: Body: White (RAL 9003)

Lid: Translucent red (RAL 3027)

Material: Body: Polycarbonate

Lid: Polycarbonate

## Compatibility

Designer: 5.7.0 or later.

Note: To ensure complete DALI-2 compatibility, use only with Helvar recommended DALI-2 controls (control devices)

## Router variants (Mains Supply)

950: 240V version

950-110V: 110V version

## Dimensions (mm)

