950 Router

The 950 Router is a certified DALI-2 Multi Master Application Controller capable of controlling DALI-2 Lighting (Control Gear), DALI-2 Controls (Control Devices) 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.
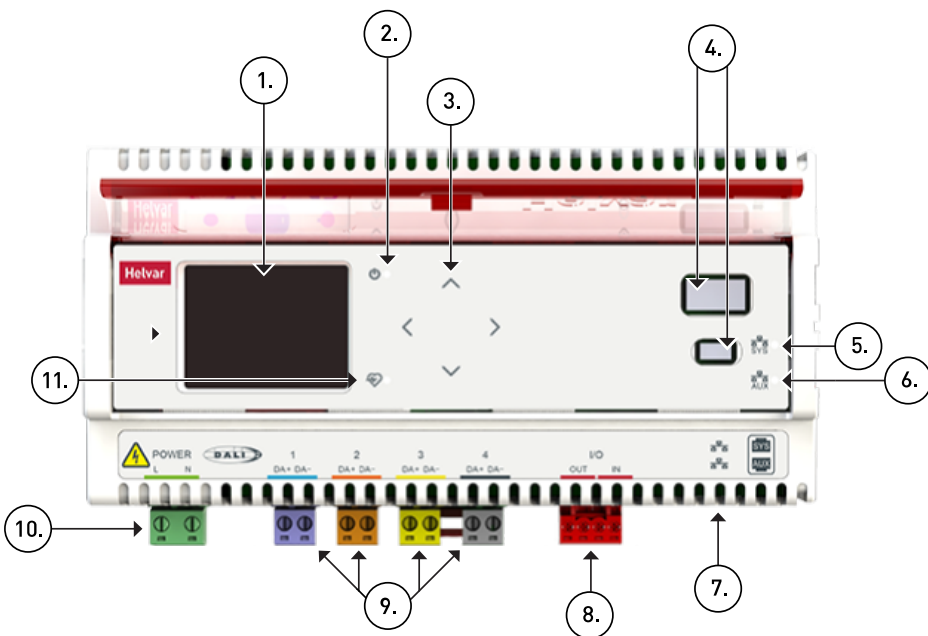
Programming can be carried out using Helvar's Designer software. All programming data is stored within the system itself eliminating a central point of failure and the need to always program with the latest saved configuration file.

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 (Control Devices). 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.
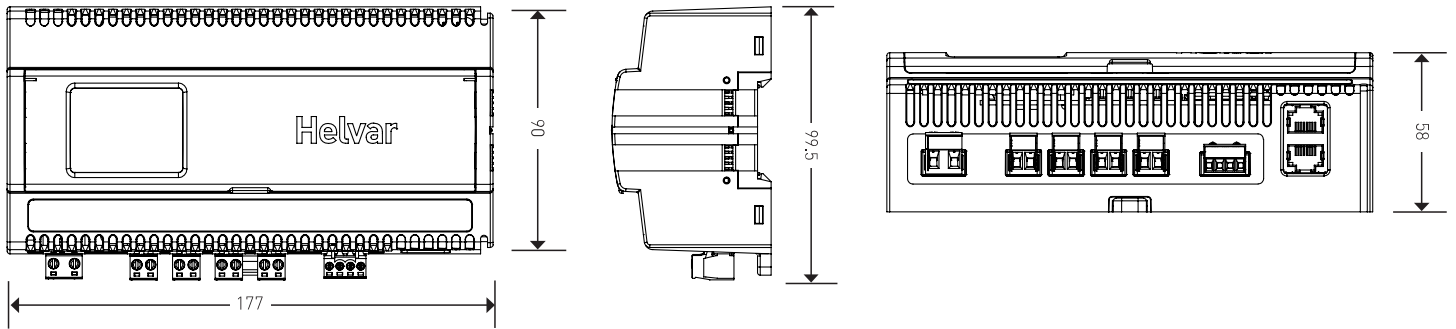- No central database required for system operation.

Connections

1. LCD Screen.
2. Power On Indicator.
3. LCD Screen buttons.
4. Do not use. USB ports for developer purposes only.
5. SYS Indicator.
6. AUX Indicator.
7. AUX and SYS Ethernet connectors x 2. SYS for lighting system network. AUX for developer purposes only.
8. I/O Port (currently not in use).
9. DALI Connectors.
10. Mains Supply.
11. System Heartbeat.

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

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

Dimensions (mm)

Technical Data

Connections	
Mains cable:	Solid core up to 2.5 mm² Stranded up to 2.5 mm²
DALI cable:	0.5 mm² – 2.5 mm² Max. length: 300 m @ 1.5 mm²
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	
Mains supply 240 V:	220 VAC – 240 VAC (nominal) 198 VAC – 264 VAC (absolute) 45 Hz – 65 Hz
Mains supply 110 V:	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. 10 A.

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

Router variants (Mains Supply)	
950:	240 V version
950-110 V:	110 V version

Operating and storage conditions	
Ambient temperature:	0 °C to +40 °C
Relative humidity:	Max. 90 %, noncondensing
Storage temperature:	−10 °C to +70 °C

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.
Colour, body / lid:	White (RAL 9003) / Translucent red (RAL 3027)
Material:	Polycarbonate
IP rating:	IP20 (IP00 at connectors)
LCD:	Colour display 320 x 240 px

Conformity and standards	
Conformity:	CE UKCA
DALI data transfer:	DALI-2 Application controller (Multi Master) IEC 62386 Parts 101 and 103
See DALI Alliance Website for full detail of supported parts https://www.dali-alliance.org/products.	
EMC emission:	EN 55015, EN 61000-6-3
EMC immunity:	EN 55024, EN 61547
Safety:	EN 61347
Environment:	Complies with WEEE and RoHS directives.

Compatibility	
Designer:	5.7.0 or later.

⚠️ Note: To ensure complete DALI-2 compatibility, use only with Helvar recommended DALI-2 controls (Control Devices).

950 Router: Datasheet
Data is subject to change without notice.

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