

945 Application Controller

The 945 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 945 Application Controller. Scale up to large and complex projects by networking multiple Imagine Application Controllers together using standard TCP/IP Ethernet connection.

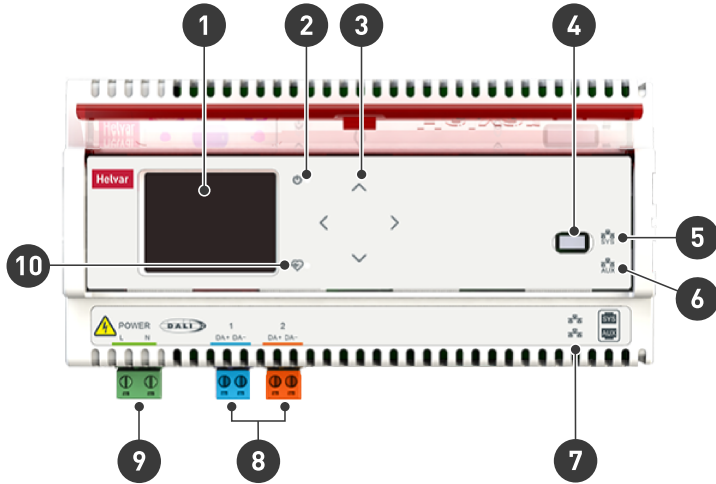
Programming can be carried out using Helvar's Designer software. All programming data is stored within the system itself eliminating a central point of failure and the need to always program with the latest saved configuration file.



Key Features

- DALI-2 Certified Multi-master application controller
- Support for 256 DALI devices
- Built in display for DALI network testing and alerts
- Built-in real-time clock
- Can be networked together to form large scalable systems
- Compatible with other Helvar Application Controllers (905, 910, 920 and 950)
- Integration with other building systems
- LightOverTime Circadian Rhythm Control
- No central database required for system operation
- Hybrid connectivity to ActiveAhead wireless system via Node Link 5611

Connections



- 1. Display
- 2. Power On Indicator
- 3. Navigation buttons
- 4. Do not use. USB-C for developer purposes only.
- 5. SYS Indicator
- 6. AUX Indicator
- 7. SYS and AUX Ethernet connectors. SYS for lighting system network. AUX for developer purposes only.
- 8. DALI Connectors
- 9. Mains connections
- 10. System Heartbeat

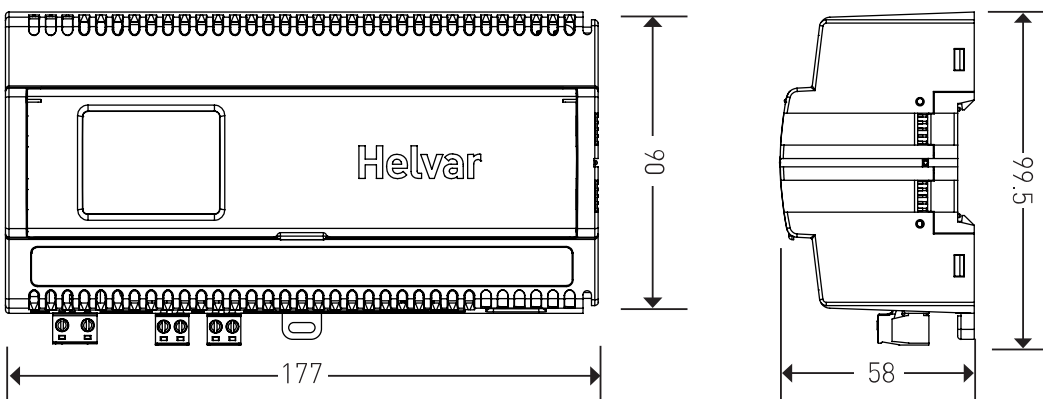
Note: The 945 Application Controller has been designed not to require an earth connection.

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

Network limits and design recommendations

	Absolute limits (DALI / DALI2)	Recommended (DALI / DALI2)
Power:	240 mA guaranteed, 250 mA max	220 mA max
Cable length:	300 m	250 m max
Cable type:	Mains rated	1.5 mm ² , mains rated
Addresses:	64 Lighting (Control gear) and DigiDim 63 DALI controls (Control devices)	55 max control gear and Digidim devices; Keep under 220 mA DALI-2 and/or Digidim control devices: 15 max; Keep under 220 mA
Product compatibility:	Use recommended DALI-2 controls and application controllers only.	

Dimensions (mm)



Technical Data

Connections

Mains:	Solid up to 2.5 mm ² Stranded up to 2.5 mm ²
DALI:	0.5–2.5 mm ² , Max. length: 300 m @ 1.5 mm ²
Ethernet:	2 × RJ45 10/100 Mb/s, CAT 5E up to 100 m (Auto MDI/MDI-X crossover) Sys for Lighting System Network Aux for developer purposes only

Electrical data

Mains supply:	230 VAC, 50/60 Hz 110 VAC, 50/60 Hz
Power consumption:	16 W (All DALI subnets fully loaded)
Heat dissipation:	10 W
Fusing:	Max. 16 A miniature circuit breaker

DALI output supply

DALI-OUT current:	2 × 240 mA (guaranteed) 2 × 250 mA (maximum)
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Variants

945:	230 V version
945-110V:	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
Real Time Clock backup:	36 hrs in nominal environmental conditions

Mechanical data

Dimensions:	177 × 99.5 × 58 mm (10U)
Weight:	460 g
Mounting:	DIN Rail
Colour, body / lid:	White (RAL 9003) / Translucent red (RAL 3027)
Enclosure:	Polycarbonate
IP rating:	IP20 (IP00 at connectors)
Display:	Colour display 320 x 240 px

Conformity and standards

Conformity:	
DALI:	DALI-2 Application controller (Multi Master) IEC 62386 Parts 101 and 103
EMC emission:	EN 55015, EN 61000-6-3
EMC immunity:	EN 55035, EN 61547
Safety:	EN 61347
Environment:	Complies with WEEE and RoHS directives.

Note: See DALI Alliance Website for full detail of supported parts <https://www.dali-alliance.org/products>.

Compatibility

Designer:	5.8.9 or later
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Note: To ensure complete DALI-2 compatibility, use only with Helvar recommended DALI-2 controls (Control Devices).