

# 905 Router

The 905 Router uses an Ethernet connection (10/100 Mb/s) to control a local DALI network.

Basic functionality is available out of the box without any programming. Helvar's Designer software allows for advanced configuration and functional programming of the router.

The system provides energy-saving features via presence detection and daylight harvesting. Further automation can be achieved through scheduled events.

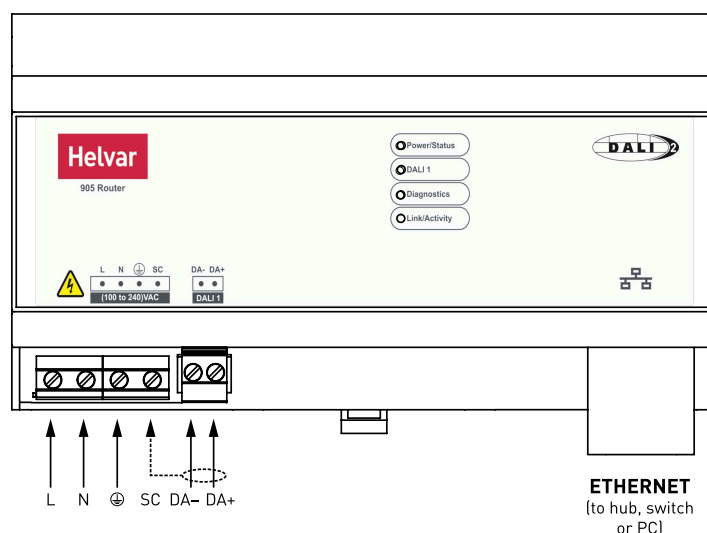
A PC can be connected to the system for diagnostics and logging purposes if required, but there is no need for PC control in daily operation, as all data is stored within the system itself. The elimination of a central controller ensures that no single point of failure can cause a total system shutdown.



## Key Features

- Support for 64 DALI devices
- Certified DALI-2
- Built-in real-time clock
- Can be networked together to form large scalable systems
- Provides local as well as central control if required
- Compatible with other Helvar Application Controllers
- Integration with other building systems
- Universal supply input

### Inputs and Outputs



The diagram illustrates the Helvar DALI-2 system architecture, showing the connection between various components and their compatibility with the system.

**System Components and Connections:**

- 1. Programming Software:** Represented by a laptop icon.
- 2. Helvar Insights:** Represented by a cloud icon.
- 3. Touch Panels, Apps AV Integration:** Represented by a tablet icon.
- 4. Building Integration\*:** Represented by a building icon.
- 5. 950 Application Controller:** A central unit connecting to the system.
- 6. Other Routers:** Additional units connecting to the system.
- 7. Helvar DALI-2 (D2) Controls:** Controls connected to the system.
- 8. Other DALI-2 Controls\*\*:** Controls connected to the system.
- 9. DigiDim Controls:** Controls connected to the system.
- 10. Load Controllers:** Controllers connected to the system.
- 11. DALI/DALI-2 Lighting:** Lighting fixtures connected to the system.

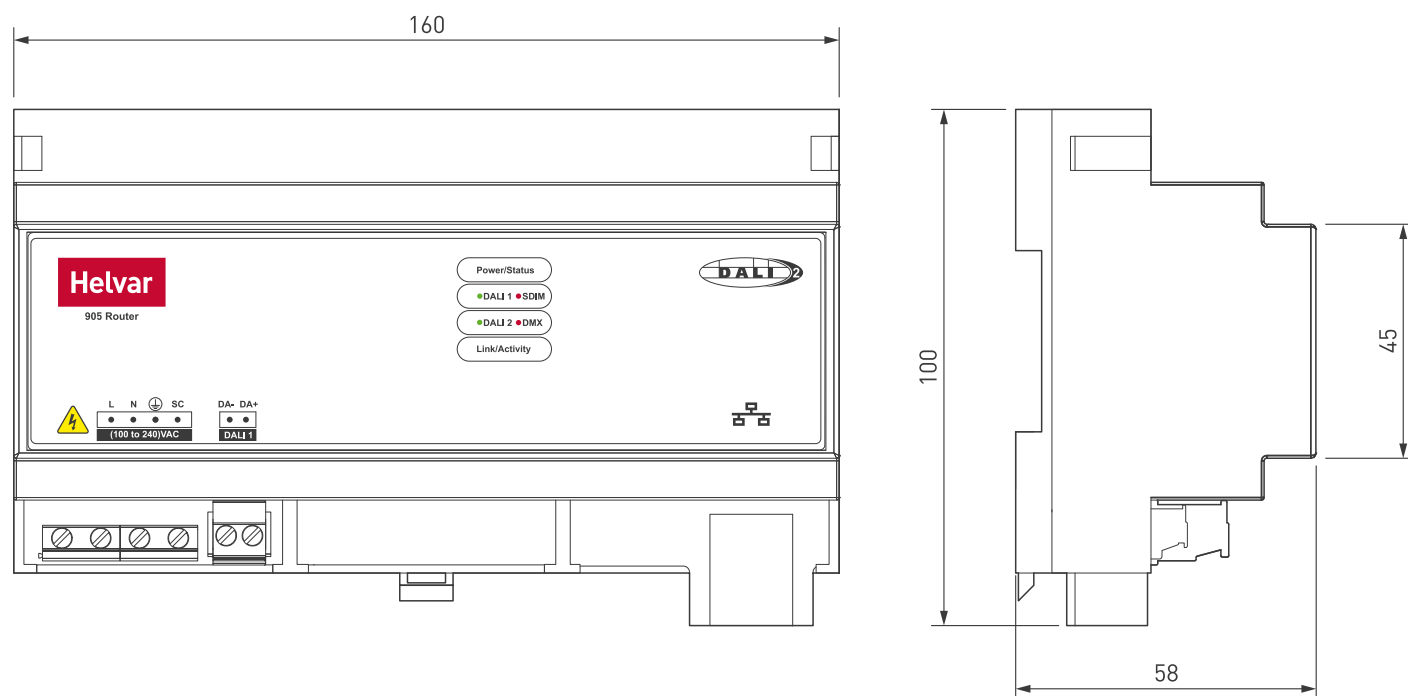
**Compatibility Matrix:**

Component	920	910	905
7. Helvar DALI-2 (D2) Controls	✓	✓	✓
8. Other DALI-2 Controls**	✗	✗	✗
9. DigiDim Controls	✓	✓	✓
10. Load Controllers	✓	✓	✓
11. DALI/DALI-2 Lighting	✓	✓	✓

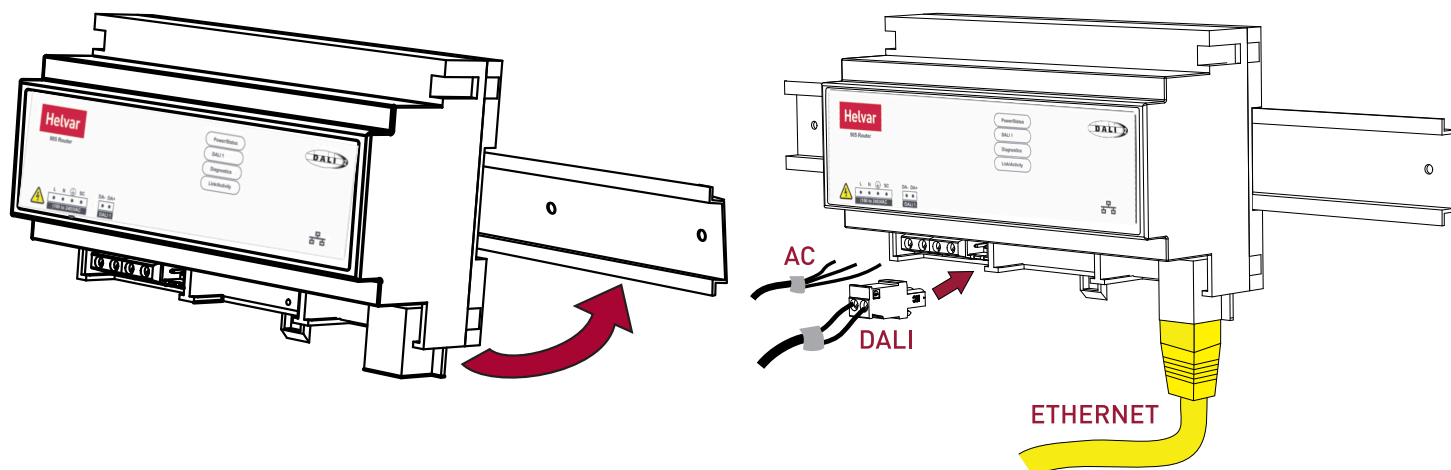
**Legend:**

- \* = Gateways required
- \*\* = Product dependent, ask local Helvar representative

### Dimensions (mm)



# Installation



## Technical Data

### Connections

Mains:	Solid up to 4 mm <sup>2</sup> Stranded up to 2.5 mm <sup>2</sup>
DALI:	2-wire mains rated, 0.5–2.5 mm <sup>2</sup> Max. length: 300 m @ 1.5 mm <sup>2</sup>
Ethernet:	1 × RJ45 10/100 Mb/s, Cat 5E up to 100 m (Auto MDI/MDI-X crossover)

### Electrical data

Mains supply:	100–240 VAC, 50/60 Hz
Power consumption:	13 VA (DALI subnet fully loaded)
Power circuit protection:	External protection max. 6 A. Earth mandatory.

### DALI output supply

DALI-OUT current:	1 × 240 mA (guaranteed) 1 × 250 mA (maximum)
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### 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:	160 × 100 × 58 mm (9U)
Weight:	250 g
Mounting:	DIN Rail. Keep mains and DALI wiring separate from Ethernet cable.
IP code:	IP30 (IP00 at connectors)

### Conformity and standards

Conformity:	<b>CE UK CA</b>
DALI:	DALI-2 Application Controller (Single Master) parts 101, 103
EMC emission:	EN 55032 Class A
EMC immunity:	EN 55035
Safety:	EN 61347-2-11
Environment:	Complies with WEEE, RoHS and REACH directives.