

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.

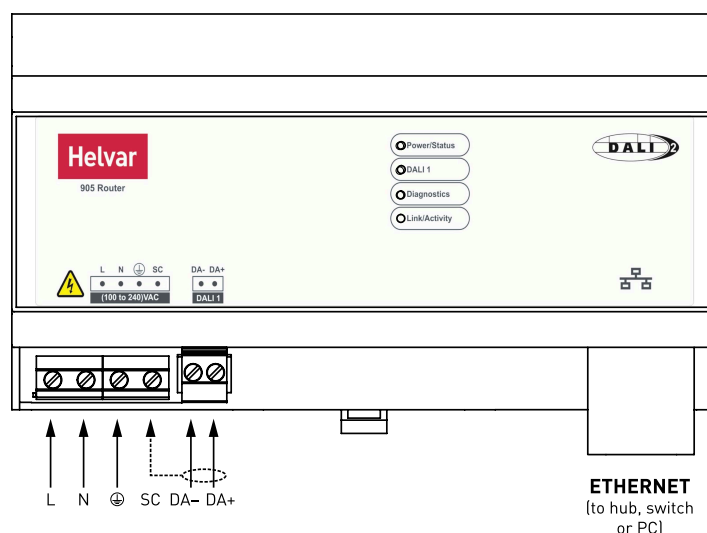
A PC can be connected to the system for diagnostics and logging purposes if required, but there is no need for PC control in daily operation, as all data is stored within the system itself. The elimination of a central controller ensures that no single point of failure can cause a total system shutdown.



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 routers (910/920/950).
- Integration with other building systems.
- Universal supply input.

Inputs and Outputs



The diagram illustrates a smart home system architecture. A central hub (1) is connected to various smart devices (2-11) via a cloud (3) and a local network (4). The diagram shows the integration of smart lighting, climate control, and security systems.

Central Hub (1): A laptop with a 'd' logo, representing the central control unit.

Cloud (3): A cloud icon with multiple connection points, representing the cloud-based communication system.

Local Network (4): A building icon with a '*' symbol, representing the local network infrastructure.

Smart Devices (2-11): A collection of smart home components, including smart switches, smart outlets, smart lighting fixtures, and smart sensors, each with a unique ID number (2-11).

Smart Switches (2, 3, 4, 5, 6, 7, 8, 9, 10, 11): These are connected to the central hub and the cloud. They are shown in two rows: the top row (2-6) and the bottom row (7-11). The bottom row is labeled with IDs 920, 910, and 905. The devices in the bottom row are marked with red 'X' symbols, indicating they are not compatible or not supported.

Smart Outlets (2, 3, 4, 5, 6, 7, 8, 9, 10, 11): These are connected to the central hub and the cloud. They are shown in two rows: the top row (2-6) and the bottom row (7-11). The bottom row is labeled with IDs 920, 910, and 905. The devices in the bottom row are marked with red 'X' symbols, indicating they are not compatible or not supported.

Smart Lighting Fixtures (2, 3, 4, 5, 6, 7, 8, 9, 10, 11): These are connected to the central hub and the cloud. They are shown in two rows: the top row (2-6) and the bottom row (7-11). The bottom row is labeled with IDs 920, 910, and 905. The devices in the bottom row are marked with red 'X' symbols, indicating they are not compatible or not supported.

Smart Sensors (2, 3, 4, 5, 6, 7, 8, 9, 10, 11): These are connected to the central hub and the cloud. They are shown in two rows: the top row (2-6) and the bottom row (7-11). The bottom row is labeled with IDs 920, 910, and 905. The devices in the bottom row are marked with red 'X' symbols, indicating they are not compatible or not supported.

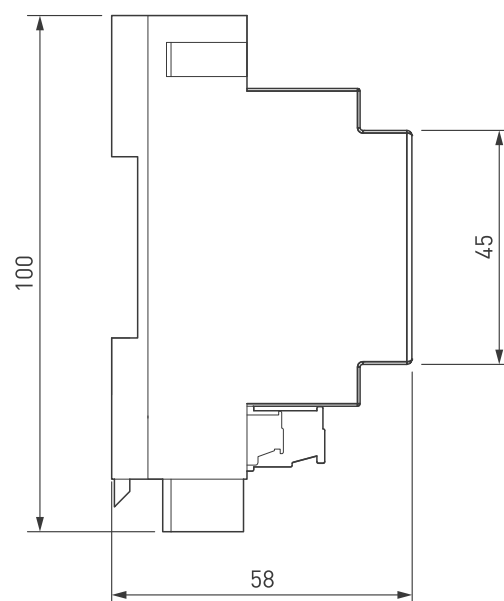
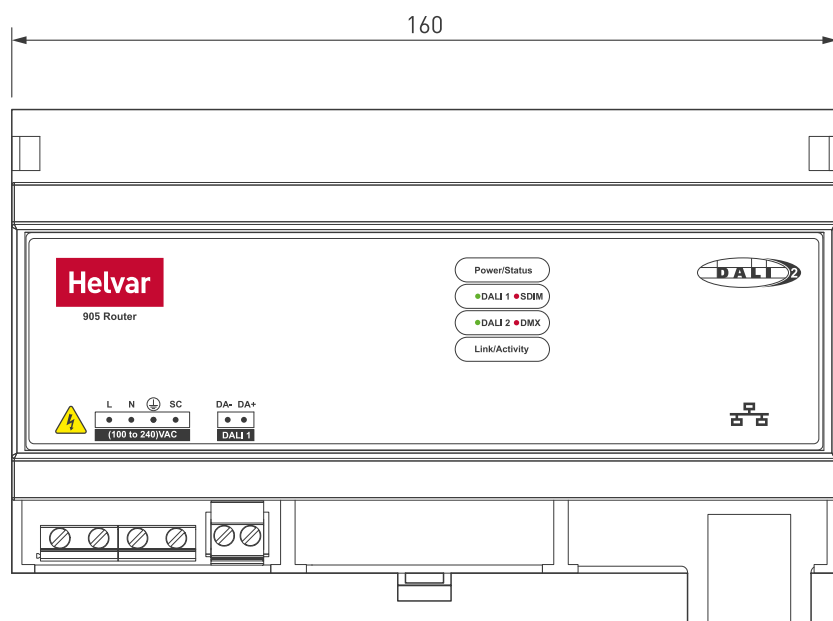
Smart Home Components (2, 3, 4, 5, 6, 7, 8, 9, 10, 11): These are connected to the central hub and the cloud. They are shown in two rows: the top row (2-6) and the bottom row (7-11). The bottom row is labeled with IDs 920, 910, and 905. The devices in the bottom row are marked with red 'X' symbols, indicating they are not compatible or not supported.

Smart Home System (2, 3, 4, 5, 6, 7, 8, 9, 10, 11): This is the overall system, which is connected to the central hub and the cloud. It is shown in two rows: the top row (2-6) and the bottom row (7-11). The bottom row is labeled with IDs 920, 910, and 905. The devices in the bottom row are marked with red 'X' symbols, indicating they are not compatible or not supported.

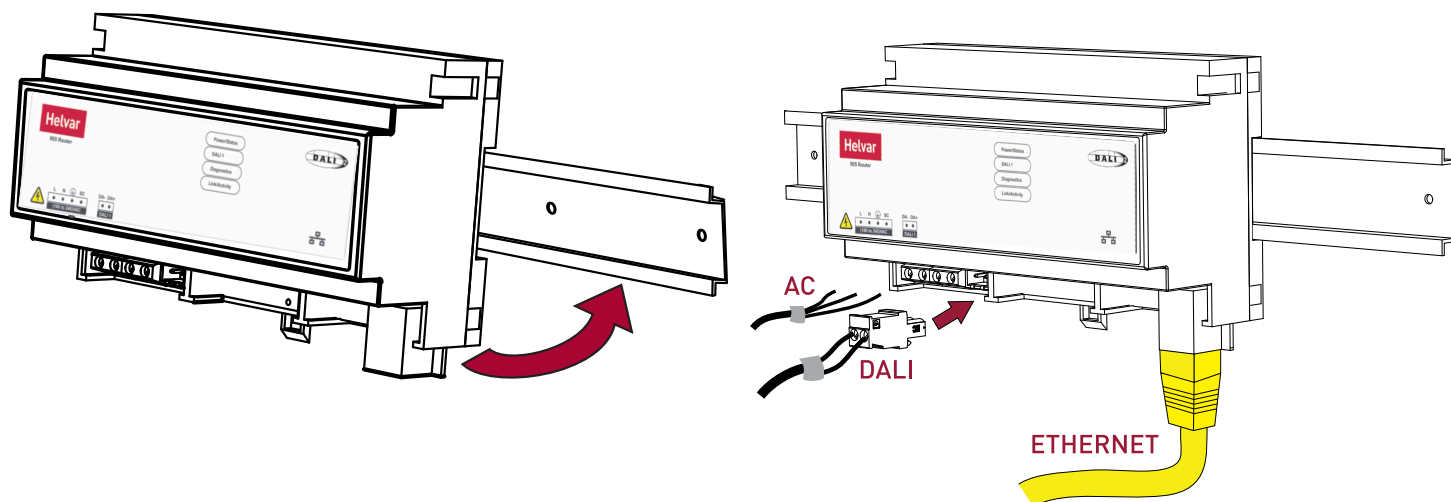
1. Programming Software
2. Helvar Insights
3. Touch Panels, Apps AV Integration
4. Building Integration*
5. 950 Application Controller
6. Other Routers
7. Helvar DALI-2 (D2) Controls
8. Other DALI-2 Controls**
9. DigiDim Controls
10. Load Controllers
11. DALI/DALI-2 Lighting

** = Product dependent, ask local Helvar representative

Dimensions (mm)



Installation



Technical Data

Connections

Mains:	Solid up to 4 mm ² Stranded up to 2.5 mm ²
DALI:	2-wire mains rated, 0.5–2.5 mm ² Max. length: 300 m @ 1.5 mm ²
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:	 
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 and RoHS directives.