QL DL SW412
Relay Module

The **QL DLSW412** is a **DALI-2 four-channel relay module** equipped with **zero-crossing detection**, designed to switch and control loads that do not inherently have a DALI input. Powered directly by the DALI bus, this relay module allows seamless integration of standard electrical devices (such as contactors, non-DALI drivers, and resistive/capacitive loads) into a DALI lighting control system.

Each of the four relays can be controlled independently and the device can automatically receive and assign **four unique DALI addresses** from the DALI master controller.

By enabling DALI control over non-DALI loads, the relay module significantly expands the flexibility of DALI systems, making it possible to integrate traditional electrical equipment alongside advanced DALI luminaires and sensors.

➢ *Zero-crossing detection for reliable switching and reduced electrical stress*

➢ *DIN rail mounting for easy installation on standard 35 mm DIN rails*

➢ *Operates on 100–240 VAC power supply*

➢ *4 independent channels to control up to four loads or devices*

➢ *4 DALI addresses automatically assigned by the DALI master controller*

➢ *Supports control of standard contactors via DALI*

➢ *5-year warranty with IP20-rated enclosure for indoor installations*

➢ *Compatible with universal DALI systems and controllers*

➢ *Integrates non-DALI loads such as traditional lighting or other devices into DALI circuits*

➢ *Loads can be switched ON/OFF via DALI commands*

Specifications

Switching Voltage
1Max. 250VAC

Power Input
100-240VAC

Output current

Resistive Load
Max. 4*12A

Inductive Load
Max. 4*12A

LED & Other Capacitive Loads
Max. 4*12A

Types of Contact
4 normally closed

Dimension (mm)
110*53*65

Frequency
50/60Hz

DALI Consumption
<3mA

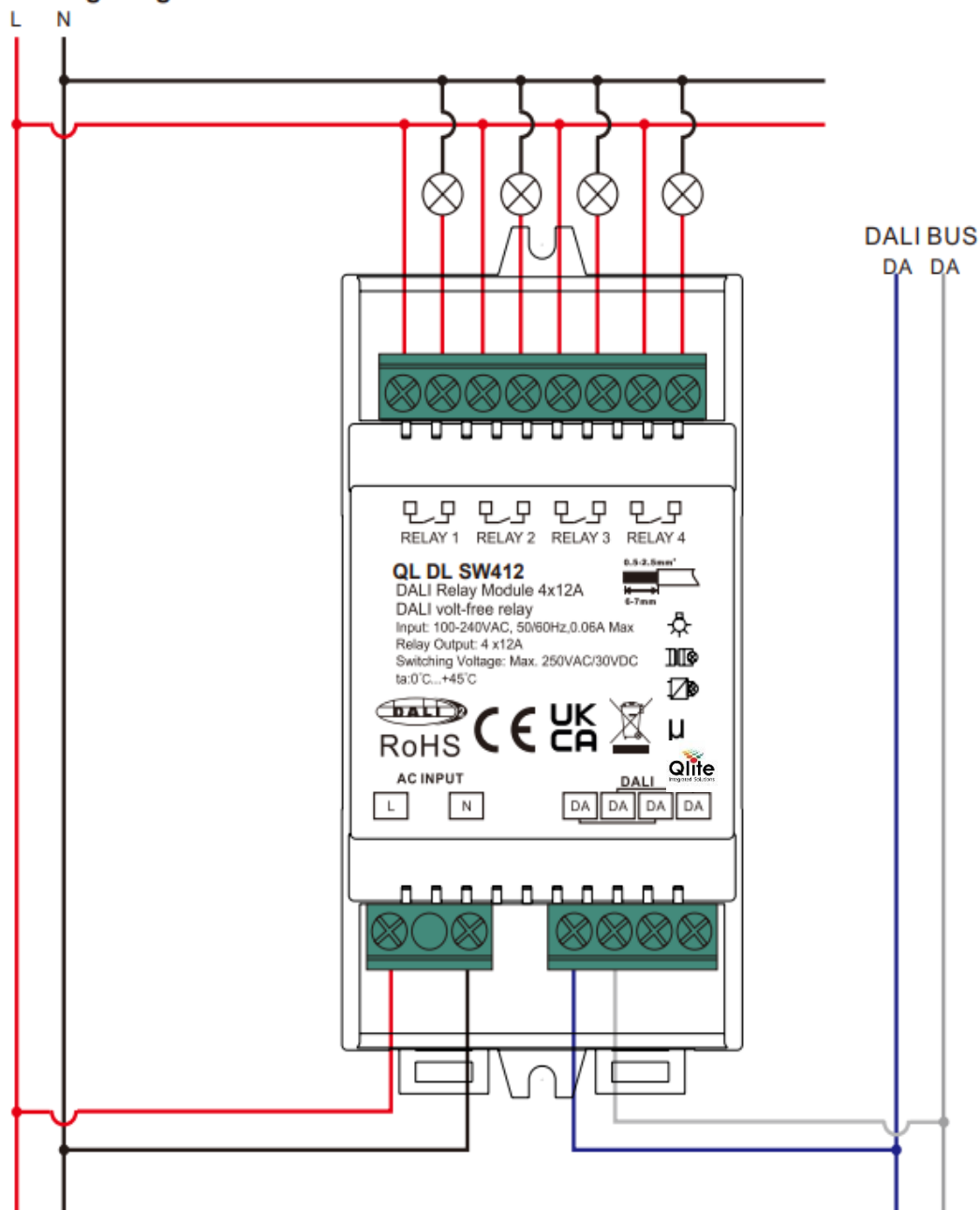Number of DALI Addresses
4

Waterproof Grade
IP20

Relay Output
4*12A

Wiring Diagram

Note: please use 2.5mm² wire for relay in and out connections, small size wire will cause over heating.

Fig 1. Wiring Diagram