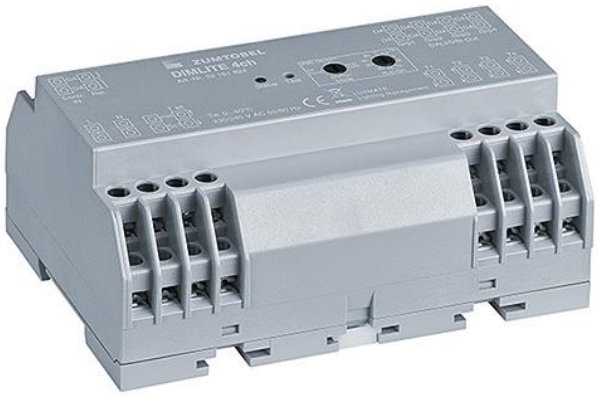
DIMLITE multifunction 4ch

Multipurpose DALI/DSI control unit

Art. no. 22161824

Application

The DIMLITE 4ch is a digital lighting control unit for controlling 4 independent luminaire groups. The outputs are set to DALI and if required can be reset to DSI or auto-detect. A built-in relay provides optional voltage isolation for the actuators. Each luminaire group can be operated as standard using a conventional 230V double momentary-action switch, which can be bridged for single-switch operation. Another dual momentary-action switch acts on all connected actuators across the groups (4-ch unit only). In addition, a conventional 230V motion sensor can be connected. The individual momentary-action switches are used to configure a lighting scene, which can be retrieved and saved via a separate switch.
System expansion is possible via the universal input 'Control-IN':
ED-SENS: PIR sensor + receiver for wireless IRTOUCH infrared remote control
ED-IR: receiver for wireless IRTOUCH infrared remote control
ED-EYE: light sensor for daylight-based control
ED-SxED: input module for 4 independent momentary-action switches (floating contacts) either to call up 3 lighting scenes or to control the lighting level of the connected luminaire groups. (configurable by switch setting)
ED Circle control points: for convenient control of the first two luminaire groups and for programming/retrieving three lighting scenes.



Design notes

- AUTO setup function: the installation initialises automatically whenever the voltage across the unit is restored.
- Maximum line length for all control lines (Control-IN, DALI and DSI): 300 metres max. per line for 1.5mm².
- The DIMLITE outputs are DALI or DSI broadcast – no addressing needed during commissioning. The group assignment is made by the wiring of the lighting actuators.
- Up to 25 DALI devices or 50 DSI devices per output channel.
- Where there is a mix of DALI outputs and DSI outputs, up to 25 devices per output channel.
- The automatic DALI/DSI identification function means that the luminaires must already be connected to the voltage supply when the DIMLITE unit is commissioned.
- Only ED devices from Zumtobel can be connected to the Control-IN. Up to 8 ED devices can be connected to Control-IN (except light sensor: 1 device maximum).
- ED-SENS PIR sensor can be assigned to individual groups using IR remote control.
- Scene and daylight settings made using key combinations.
- When a light sensor is connected, lighting scene 1 always runs the daylight program; all installed groups are always operated under daylight-based control.
- Up to 3 lighting scenes depending on control point; each control point always calls the same scene 1, 2 3 or OFF.
- The function of the "ED-SxED“ ED unit can be selected via the built-in rotary switch: either a scene module (1, 2, 3, OFF) or group module (dimming of group 1, 2, 3, 4).
- Circle control point calls three lighting scenes plus OFF; the two rocker switches dim lighting group 1 and 2; lighting group 3 and 4 cannot be dimmed separately.
- Commercially available 230V momentary-action switches can be connected to the switch inputs T1-T4.
- PIR input is for connecting a commercially available motion sensor; if an ED-SENS is installed in the system then this input is disabled.
- The motion sensor (ED-SENS or 230V standard commercial model) can be operated in three different modes: OFF: the motion sensor only switches off, ON+OFF: the motion sensor switches the lighting system both on and off again, ON+CORR.: the lighting installation always runs in reduced continuous mode (10%) and only increases the lighting to the level of the last scene during each occupancy phase.
- The fade time can be changed from 0 seconds to 1 second.
- If a motion sensor is not connected, then a stairwell function can be enabled using a PIR selector switch and time lag.
- Relay for disconnecting the mains power: 16A resistive load; an external power contactor is recommended for higher loads or capacitive/inductive loads.
- DIMLITE can be locked to safeguard against unwanted programming of system points and lighting scenes.
- All stored values are retained in the event of a power failure.

Functional description

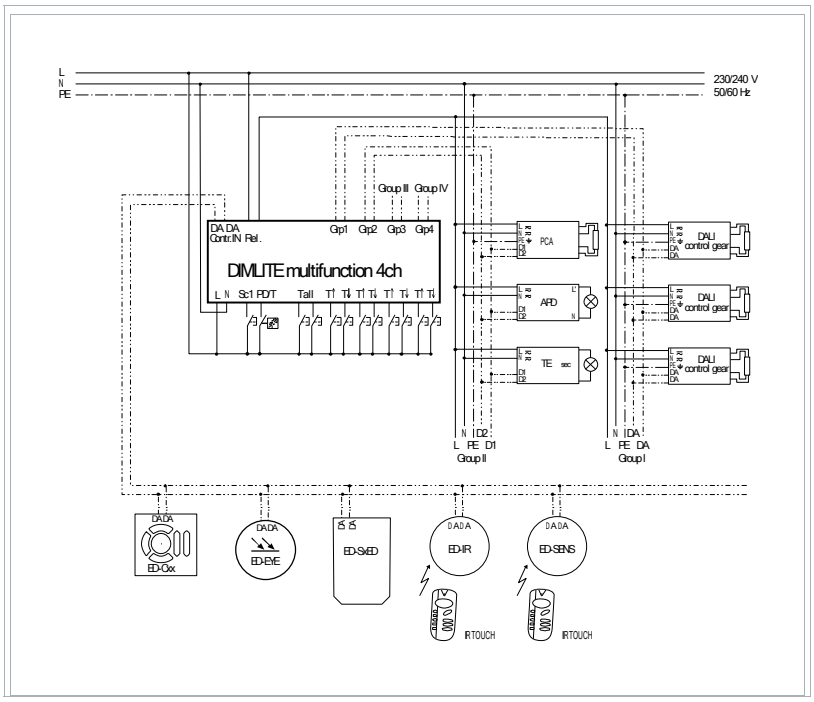
Double momentary-action switch control:
ON/OFF...short press on switch to T+ or T-
INCREASE lighting level... long press on switch to T+
DECREASE lighting level... long press on switch to T-

Single momentary-action switch control:
ON/OFF... short press on switch
INCREASE/DECREASE lighting level: long press on switch
(dimming direction changes each time switch is operated)

The LED on the housing is solidly green when the installation is operational. When it is flashing green, the system is in the process of initialisation. The LED flashes red in the event of a fault.
The test button on the unit can be used to check that the luminaires are installed correctly. Pressing the test button briefly switches all connected luminaires to 100 %.

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Wiring scheme



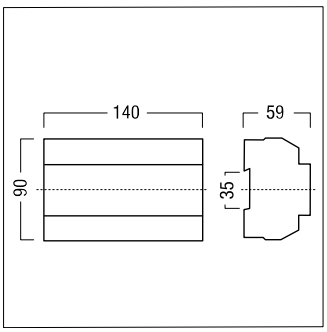
Mounting and installation instructions

- For installation in control cabinets on 35mm DIN rail as per EN 50022.
- Light sensor installation: surface-mounted on ceiling pointing towards window.
- The DALI/DSI/Control-In control lines must be installed as a functional extra-low voltage installation. We recommend using standard installation parts (2 x 0.75mm² - 2 x 1.5mm², NYM).
- The polarity of the DALI/DSI/Control-In control lines is interchangeable.
- The mains supply is connected directly to the L and N terminals without relay switching.
- The inputs for the standard momentary-action switches can be connected in parallel with several switches if required.
- All connected input devices (T1 to T4, Tall, PIR, Scene) must have the same phase.

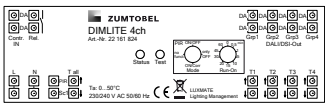
Technical data

Nominal voltage	230/240 V AC, 50/60 Hz
Permitted input voltage	207 ... 264 V AC, 50 ... 60 Hz
Power loss	< 6 W
Inputs	Standard momentary-action switch inputs (T1 to T4, tall, scene) Presence detector input universal Control-In input for connecting ED sensors and ED control units
Outputs	4 DALI/DSI outputs with auto identification
DALI signal	16 V clocked (Manchester code)
DALI control wiring	H05VV-U 2 x 1.5mm², max. 300 m
Mains wiring	H05VV-U 2 x 1.5mm²
Terminals	0,75 ... 2,5 mm²
Protection type	IP20
Housing material	plastic, halogen-free, flame retardant
Installation	On 35 mm top-hat rail according to EN 50022
Dimensions	8 units at 17,5 mm 140 x 90 x 59 mm
Permitted ambient temperature	0 °C ... +50 °C
Weight	Approx. 0.36 kg
Miscellaneous	Status LED for indication of operating state Momentary action test switch for testing the installation

Dimension



Label/connections



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