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DESCRIPTION

The twilight switch WZH-01 is used to control lighting devices and other energy receivers depending on luminous flux density. The system switches on the lighting at dusk and switches off at dawn. The switching on threshold can be adjusted by the user. The system is resistant to momentary changes of luminous flux density and the same guarantees its reliability. The hermetic casing (IP65) secures the device functioning in unfavorable weather conditions.

FEATURES

- It allows to switch on and/or switch off lighting devices according to the pre-set ambient light level,
- adjustment of the switch on threshold,
- wide setting scope of the switch on threshold (from 0 to 200 lx),
- inner lighting sensor,
- resistant to momentary changes of luminous flux density,
- hysteresis of the switch-over threshold,
- hermetic (IP65 protection degree) enclosure,
- voltage relay output max 16 A capacity.



The device is designed for one-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this operating manual. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions. Disassembling of the device is equal with a loss of guarantee and can cause electric shock. Before installation make sure the connection cables are not under voltage. The cruciform head screwdriver 3,5 mm should be used to instal the device. Improper transport, storage, and use of the device influence its wrong functioning. It is not advisable to instal the device in the following cases: if any device part is missing or the device is damaged or deformed. In case of improper functioning of the device contact the producer.

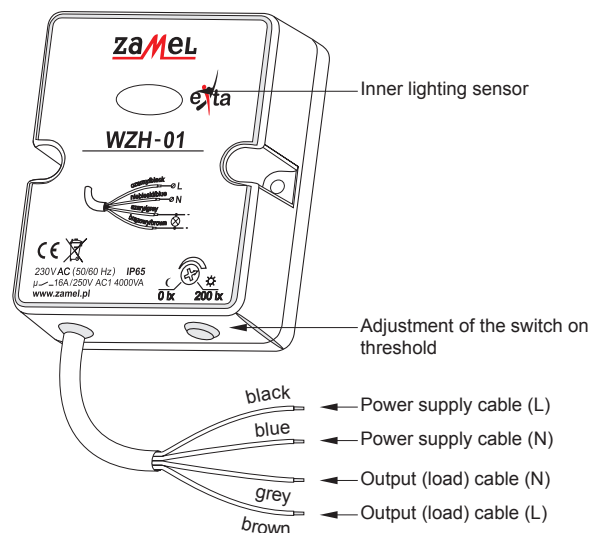


The symbol stands for selective collection of electrical and electronic devices. Placing used devices with other waste is not allowed

TECHNICAL PARAMETERS

WZH-01	
Power supply cables:	L (black), N (blue)
Input rated voltage:	230 V~
Input voltage tolerance:	-15 ÷ +10 %
Nominal frequency:	50 / 60 Hz
Rated power consumption:	24 mA
Output (load) cables:	L (brown), N (grey)
Threshold adjustment range:	0 ÷ 200 lx (potentiometer)
Lighting sensor:	inner
Output relay parameters:	1NO-16 A / 250 V AC1 4000 VA (voltage contact)
Number of switch cables:	4
Section of connecting cables:	4x 0,75 mm ²
Length of connecting cables:	0,5 m
Ambient temperature range:	-20 ÷ +45 °C
Operating position:	vertically, cable down
Mounting:	2x stretcher 5x(3x30)
Protection level of casing:	IP65 (PN-EN 60529)
Protective class:	II
Overvoltage category:	II
Pollution degree:	2
Rated impulse withstand voltage:	1 kV (PN-EN 61000-4-5)
Dimensions:	69x56x27 mm
Weight:	0,12 kg
Reference standards:	PN-EN 60669-1 PN-EN 60669-2-1 PN-EN 61000-4-2,3,4,5,6,11

APPEARANCE



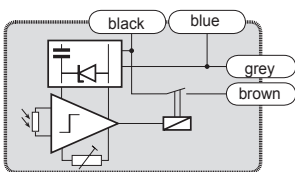
MOUNTING

1. Disconnect the power supply from the mains by the phase fuse, the circuit-breaker or the switch-disconnector that are joined to the proper circuit.
 2. Check if there is no voltage on connection cables by means of a special measure equipment.
 3. Fasten the WZH-01 to the base with the screw.
- NOTICE! It is forbidden to bore fitting holes in the cover! It may result in the loss of containment of the cover and by this – the loss of guarantee!**
4. Connect the cables WZH-01 with the hermetic installation junction box according to installing diagram.
 5. Switch on the power supply from the mains.
 6. Take out the rubber hole plug covering the adjustment of the switch on threshold potentiometer.
 7. Adjust the demanded switch on time by means of a potentiometer.
 8. Put back the rubber hole plug covering the potentiometer.

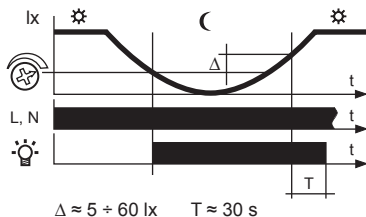
FUNCTIONING

The system works properly after switching on the power supply from the mains. Turning the potentiometer in the direction of „☾“ causes the lighting device to switch on at lower lighting level, in the direction of „☀“ causes the device to switch on at higher lighting level. In case the inner sensor's luminous flux density falls below the preset threshold the system switches on the output relay and its lighting devices. The relay is switched on until the luminous flux density is over the preset threshold. Using the luminous flux density hysteresis (delta) and relay switching off time delay (T) makes the system resistant to momentary and accidental light pulses. While mounting the twilight switch pay attention the switched on lighting does not disturb the functioning of the twilight lighting sensor.

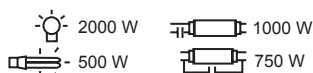
INNER DIAGRAM



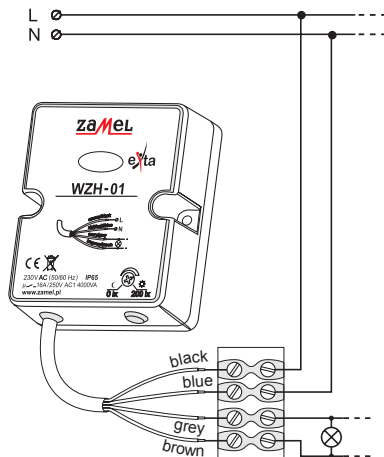
TIME COURSE



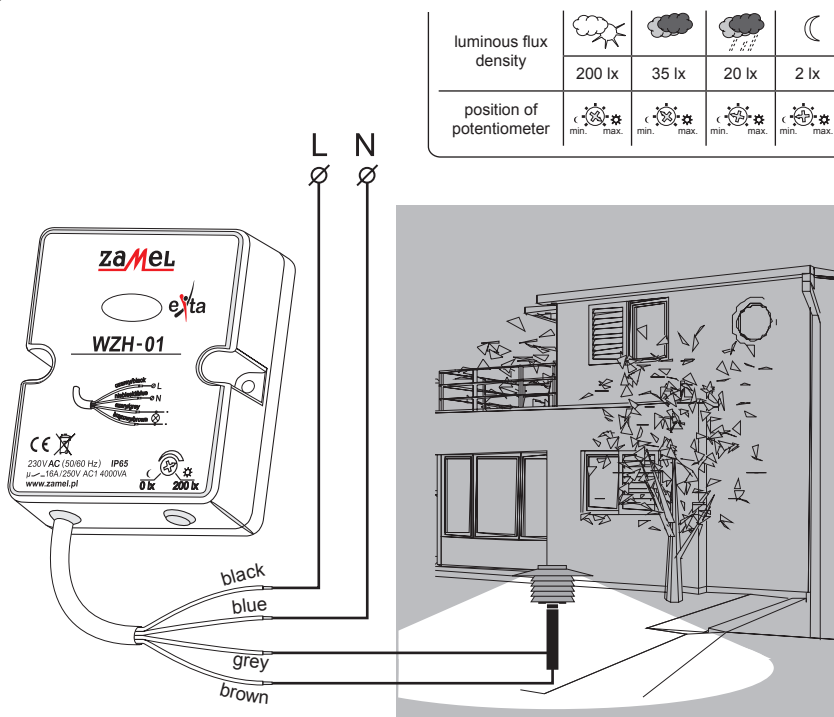
RELAY CAPACITY



CONNECTING DIAGRAM



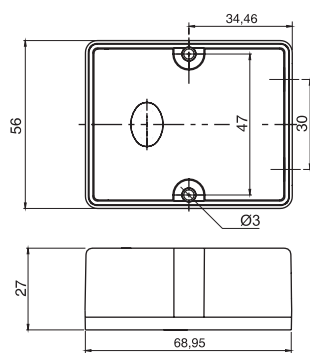
EXAMPLE OF INSTALLATION



Typical application:

The twilight switch operates the light control functions (for example garden lighting). The device should be installed in a place which is not directly illuminated by lights that are operated by this twilight switch.

DIMENSIONS



PRODUCT FAMILY

The twilight switch WZH-01 belongs to the twilight switches WZx family.

WZx - xx (/ S1)

