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DESCRIPTION

The twilight switch WZN-01 is used to control lighting devices and other energy receivers depending on lighting intensity. The system switches on the lighting at dusk and switches off at dawn. The switch on threshold can be adjusted by the user. WZN-01 twilight switch is resistant to momentary changes of lighting intensity and the same guarantees its reliability.

FEATURES

- It allows to switch on and/or switch off lighting devices according to the pre-set ambient light level,
- supply voltage indicator,
- relay mode indicator,
- adjustment of the switch on threshold,
- wide setting scope of the switch on threshold (from 0 to 200 lx),
- necessary application of outdoor light sensor SOH-01, SOH-03, SOH-05 lub SOS-01,
- resistant to momentary changes of lighting intensity,
- hysteresis of switch-over threshold,
- voltage relay output with max 16A capacity.

TECHNICAL PARAMETERS

WZN-01	
Power supply terminals:	L, N
Rated voltage:	230 V~
Rated voltage tolerance:	-15 ÷ +10 %
Rated frequency:	50 / 60 Hz
Rated current consumption:	24 mA
Supply voltage indicator:	LED green diode
Light sensor terminals:	F, F
Sensor cable maximum length:	50 m (MTY 2x 0,5 mm ²)
Output (load) terminals:	N, P
Threshold adjustment range:	0 ÷ 200 lx (rotational potentiometer)
Relay mode indicator:	LED red diode
Output relay parameters:	1NO-16 A / 250 V AC1 4000 VA (voltage contact)
Number of terminal clamps:	6
Section of connecting cables:	0,2 ÷ 2,50 mm ²
Ambient temperature range:	-20 °C ÷ +45 °C
Operating mode:	freely
Mounting:	2x stretcher 5x(3x30)
Protection degree:	IP20 (EN 60529)
Protective class:	II
Overvoltage category:	II
Pollution degree:	2
Rated impulse withstand voltage:	1 kV (EN 61000-4-5)
Dimensions:	69x56x27 mm
Weight:	0,073 kg
Reference standards:	EN 60669-1 EN 60669-2-1 EN 61000-4-2,3,4,5,6,11



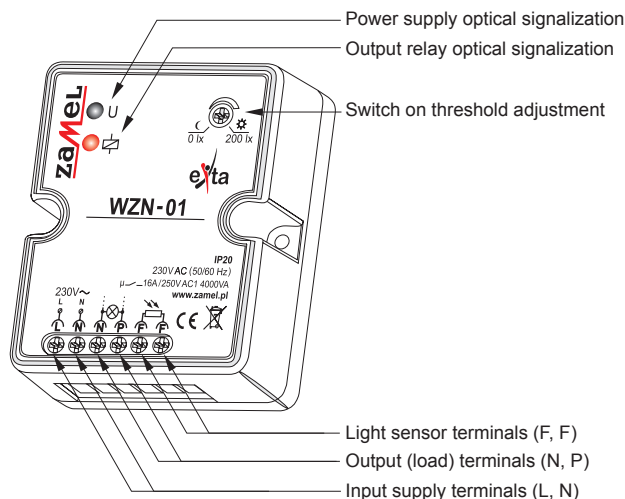
The device is designed for single-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this operating manual. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions.

In case of casing dismantling, the guarantee is lost and an electric shock may occur. 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 means selective collecting of electrical and electronic equipment. It is forbidden to put the used equipment together with other waste.

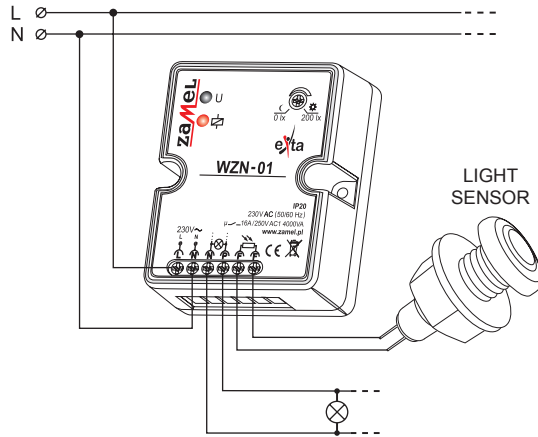
APPEARANCE



MOUNTING

1. Disconnect power supply by the phase fuse, the circuit-breaker or the switch-disconnector combined to the proper circuit.
2. Check if there is no voltage on connection cables by means of a special measure equipment.
3. Fasten the WZN-01 to the base with the screw.
4. Connect the cables with the terminals in accordance with the installing diagram.
5. Switch on the power supply from the mains.
6. Adjust the threshold potentiometer to minimum to switch on lighting.
7. If the outdoor lighting reaches the moment when lighting installation should be switched on - gently turn the potentiometer towards maximum until the device switches on.
8. Leave the potentiometer in the adjusted position.

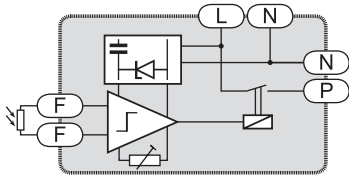
CONNECTING DIAGRAM



FUNCTIONING

The device operates properly after power supply has been added. Turning the potentiometer in the direction of „C“ symbol causes the device to switch on at a lower lighting level, in the direction of „S“ symbol causes the device to switch on at a higher lighting level. In case the inner sensor's lighting intensity falls below the preset threshold the system switches on the output relay and its lighting devices. The relay is switched on until the lighting intensity is over the preset threshold. Using the lighting intensity 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 inner light sensor.

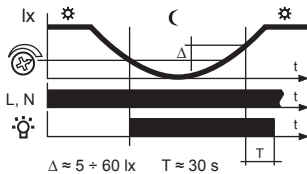
INNER DIAGRAM



RELAY CAPACITY



TIME COURSE

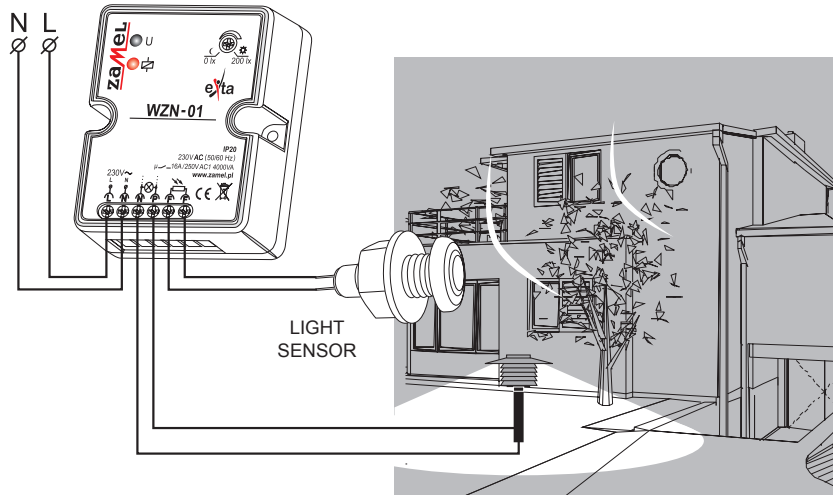


SENSOR FAMILY

Sensor:	Length:
SOH-01	1 m
SOH-03	3 m
SOH-05	5 m
SOS-01	-

EXAMPLE OF INSTALLATION

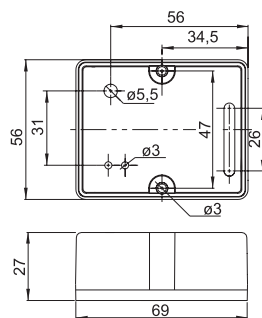
Lighting intensity	200 lx	35 lx	20 lx	2 lx
Potentiometer's position	min. max.	min. max.	min. max.	min. max.



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 WZN-01 belongs to WZx family product.

WZx-xx (/xx)

