

# Twilight Switch

## Types DS6V and DS6

### General

The universally applicable twilight switches DS6 in combination with light-sensor LF 5 are reliable switching devices for street-, courtyard-, house-, stable- and showroom-window illumination. It monitors daylight or artificial light. The switching-limit is adjustable

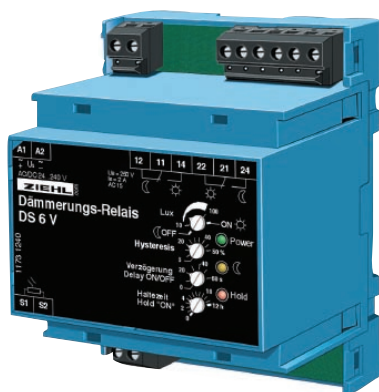
between 10 and 100 LUX.

Switching illumination by means of a twilight switch is more economic than switching with a timer, because it is only switched on when it is really needed.

An adjustable switching-delay allows to suppress short changes in brightness, e.g. caused by the light of a car, shining on the sensor.

### Designs

#### DS6V



The DS6V is especially universal. It can be mounted on DIN-rail in cabinets or wall-mounted.

Variable possible settings allow a good adaptation to a variety of applications.

An adjustable switch-on-hold time can switch on an illumination, e.g. in a courtyard, in a showroom-window or at a christmas-tree, at twilight for a fixed time, e.g. 6 hours. The light is automatically switched off after this time, an additional timer is not necessary.

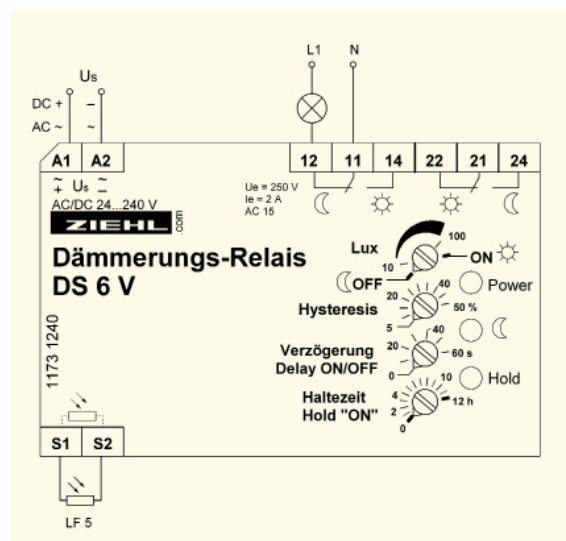
The 2 output-relay switch inverted. This means, that at relay K1 the light is connected to the normally closed-contact (nc, terminal 12) and is automatically switched on at a failure.

The universal supply voltage AC/DC 24-240 V allows to connect the relay to any common mains.

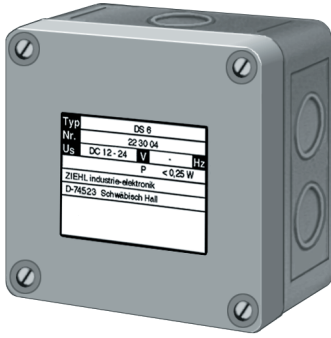
- Switching limit adjustable app. 10...100 LUX
- Hysteresis adjustable 5...50 %
- Switching-delay on/off adjustable 0...60 s
- Switching-on-hold adjustable 0-12 hours
- 2 Relays, 1 co-contact each, with inverted functions
- Position ON/OFF for continuous ON/OFF
- Position automatic 10...100 LUX
- LEDs for Power ON, light on and hold
- Universal-power-supply AC/DC 24-240 V
- Housing for rail- or wall-mount,
- mounting height 55 mm, 70 mm wide
- Input for light-sensor LF 5

Order-number:  
AC/DC 24-240 V O223036

Please order light-sensor LF 5 extra.



## DS 6



The twilight-switch DS6 is mounted in a plastic-housing, protection-class IP54. It is suited for mounting in moist atmosphere or outside.

The relay is connected in closed-current-mode. When the light at the sensor LF 5 falls below the limit, the relay releases and switches on the light. The illumination is connected to the normally closed-contact (nc, terminal 16).

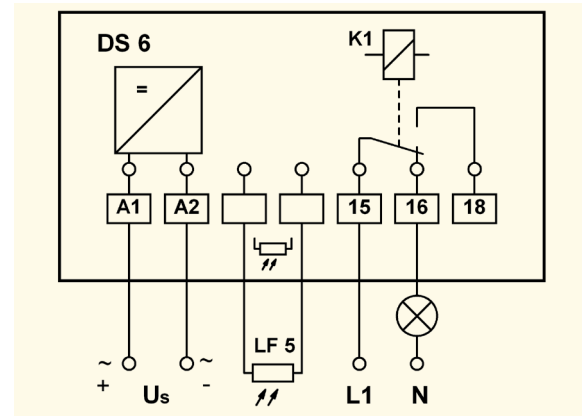
At failures, e.g. disconnection of the sensor or loss of supply-voltage, the light is switched on.

- Switching-limit adjustable app. 10...100 LUX
- Switching-delay adjustable 0,2...10 s
- Relay 1 CO contact
- Housing protected IP 54
- Input for light-sensor LF 5

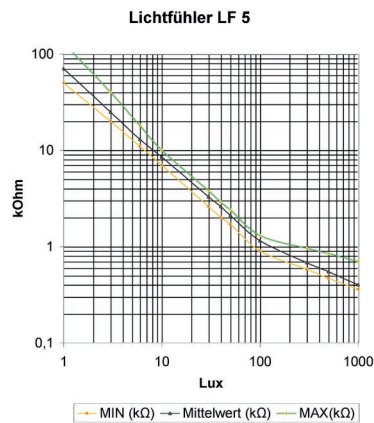
Options:

- Operating-current mode, Relay picks up at darkness
- other supply-voltages
- especially current-saving execution DC 12-24 V

for applications in solar plants



## Light-Sensor LF5



The light-sensor LF5 can be connected to the twilight-switches DS6 and DS 6V. It is mounted in a hermetically sealed, weather-proof and uv-resistant plastic thread pipe. The connection-cable is 1 m long.

If possible, the sensor should be mounted on the north-side of a building to avoid direct exposure to the sun on summer days. Take care that street lamps, head-lamps of cars or the light switched by the DS 6 itself has no disturbing influence on the function. Vertically positioning of the sensor directly upwards is therefore recommended.

To reduce the sensitivity and to shift switching-limits of the connected relays to higher values, filters can be mounted in front of the sensor (not included).

Order-number: O223105

## Technical Data

## Power Supply

Supply voltage  $U_s$   
Admissible tolerance  $U_s$   
Power consumption  
Frequency

## DS6

AC 230 V  
+10%...-15%  
≤ 3 VA  
50...60 Hz

## DS6V

AC/DC 24-240 V  
± 15%  
< 3 VA  
0/50/60 Hz

## Switching Limits

Switching-on limit  
Hysteresis  
Switching-delay  
Switch-on-hold

app. 10...100 Lux adjustable  
0,2...10 s (ex works. 5 s)  
-

app. 10-100 Lux adjustable 5-50%  
0...60 s  
adjustable 0-12 h

## Relay-Output

Contact elements  
Type of contact  
Test conditions  
Rated ambient temperature  
Dimensions (h x w x d) mm  
Protection housing / terminals  
Weight

1 change-over (co)      2 co, 1 x inverted  
Type 2 see "general technical informations"  
see "general technical informations"  
-20°C...+55°C      -20°C...+55°C  
Design I 94: 94x94x57      Design V4: 90x70x58  
IP 54/IP 20      IP 30/IP20  
app. 320 g      app. 250 g

## Light-Sensor LF 5

Resistance 10...100 Lux  
Sensor-housing  
Connection-cable  
Rated ambient temperature

app. 9...1 kΩ, tolerance see characteristic  
Design M 14 x 35 mm  
1 m (extension up to min. 50 m possible)  
-30...+80°C

Special executions and cable-lengths on request.