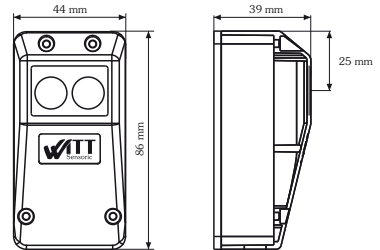# RP 25 reflective photo-electric switch

WITT Sensoric®

- range 0.5...15m, depending on the type of reflector
- immune to external light sources
- high degree of protection
- optional cable entry
- terminal compartment
- polarisation filter optical system
- test input
- operating voltage 10-40VDC or 24VAC ±25%
- protected against power supply polarity reversal
- relay output
- easy adjustment of the optical sensor
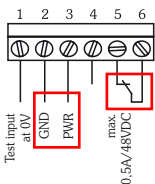- dirt indicator
- LED alignment indication

44 mm · 39 mm · 25 mm · 86 mm

Declaration of conformity
EMC directive 2014/30/EU
EN 61000-6-2 and EN 61000-6-3

$C \in$

Technical data

operating voltage	10...40VDC 24VAC, ± 25%	ranges	R30/60 = 0,5...8m RD82 SW4 = 0,5...12m R100/100 = 0,5...15m
operational	<100ms after power on	indications	dual LED red/green
current consumption	max. 30mA/24V	light beam interrupted = lights up red	
type of light	red, 680nm pulsed, polarised	light beam uninterrupted, spare critical function capacity. = flashes red at 4Hz	
aperture angle	approx. 1.5° total angle	light beam uninterrupted, high spare function capacity.	
output	relay, changeover contact	= lights up green	
switch rating	min. 1mA/min. 5VDC max. 0.6A/50VAC max. 0.5A/48VDC (resistive load)	additional function	test input (when 0V at terminal 1 the transmitter switches off)
response time	<10ms, detection of light beam interruption	type of connection	screw terminal max. 1.5mm²
		casing material	lower part: ABS-GF15% upper part: PMMA, red
relay delay	when the light beam is uninterrupted again, the relay picks up with 100ms delay	degree of protection	IP65, to EN60529
		operating temp.	-25°...60°C
		storage temp.	-35°...80°C
type of switching	responsive to brightness, i.e. the relay picks up when the light beam is uninterrupted	weight	approx. 60g
		size	86x44x39mm³ (LxWxH)

Terminal assignments

1 2 3 4 5 6

Test input at 0V · GND · PWR · max. 0.5A/48VDC

✓

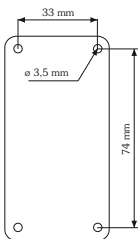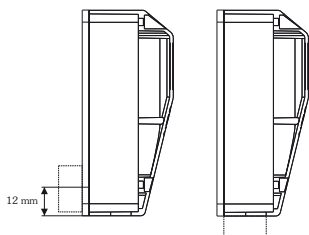☞ **Note:** For test purposes the photo-electric switch switches the transmitter off when GND is applied to terminal 1. For reasons of safety the photo-electric switch is responsive to brightness, so that the relay picks up when the light beam is uninterrupted.

Size

33 mm

ø 3,5 mm

74 mm
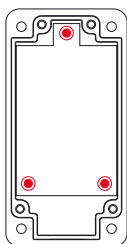
12 mm

Hole spacing

optional cable entry

Rubber grommet
or
Cable gland
M12x1,5

☞
Note:
The cable entry is moulded into the lower part of the casing and can be broken out. Either the rubber grommet or the cable gland (both supplied) can be used.
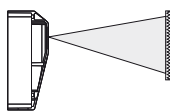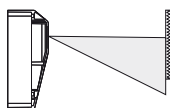
Fine adjustment

After mounting the photo-switch the light beam can be adjusted using 3 screws.
⚠ Important note!
The optical sensor is spring-mounted. All 3 screws are unscrewed by 1 turn factory-made, the maximum is 3 turns. The optical sensor is optimally aligned when the green LED lights up constantly.
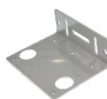
LED lights up:
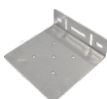100 % of the cone of light is hitting the reflector

LED flashing:
Less than 100 % of the cone of light is hitting the reflector

Accessories

HW-LS mounting bracket
for the reflektive photo-electric switch
Material: bright 1,5 1.4301 (V2A)
Ordering details
HW-LS   314847

WSH-RD82 rain cover
for the reflector RD82-SW4
protection against rain, hail and snow,
impact resistant, UV-stable
material: PA6 GF15
Ordering details
WSH-RD82   315316

Anti-condensation cover
for RD82 SW4 reflector
ISO RD82
Material: Polystyrene or Neopor
Ordering details
ISO-RD82   314849

HW-RD82 mounting bracket
for the RD82-SW4 reflector
Material: bright 1,5 1.4301 (V2A)
Ordering details
HW-RD82   314848

WSH-LS rain cover
for the reflective photo-electric switch RP20/RP25,
protection against rain, hail and snow,
impact resistant, UV-stable
material: PA6 GF15
Ordering details
WSH-LS   315315

Anti-condensation cover
for R30/60 reflector
ISO R30/60
Material: Polystyrene or Neopor
Ordering details
ISO-R30/60   314850

RD82 SW4 reflector
Mounting: screwable
Range: approx. 12m with
              RP20
Ordering details
RD82 SW4   314811

R30/60 reflector
Mounting: screwable
Range: approx. 8m with
              RP20
Ordering details
R30/60   314810