Laser light barrier ES01-5

Version: through hole mounting

Characteristics:

- Reverse voltage protection
- LED-indication at receiver
- Short-circuit protected output
- Sender is focusable
- Analogue and Digital output
- Easy installation

Short description

System:
The **ES01** can be used practically everywhere due to its very small dimensions. Using the housing will protect the ES01 additionally against ingress of dirt and chemicals and enable easy installation. The receiver is well shielded from disturbing light. The **ES01** has an operational range of up to 12m and uses a class 2 laser. A wider range is available on request. The ES01 can be focussed at all times to optimise settings to the actual range. The output provides an analogue signal in proportion to the laser light and a digital signal with a fixed set point or a NPN/PNP output. The digital response sensitivity can be adjusted. A LED signals the logical condition of the digital output signal. The use of a laser beam and the response time below 50 microseconds enables detection of small objects. The ES01 is suitable for use in industrial environments.

Sender:
Standard I.L.E.E. laser diode module

Receiver:
The sensitivity will be adjusted by a potentiometer.
An interruption of the laser beam turns the LED off and switches the digital output signal to low.

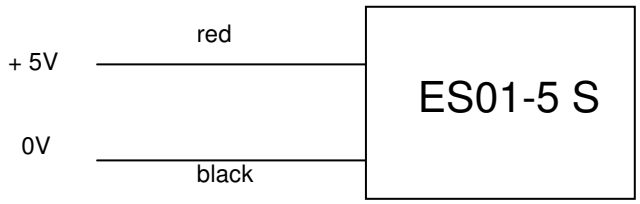
Technical data

Laser light barrier	ES01-5		
Range	Typically 12		m
Operating temperature	-20 ... +50		℃
IP-protection	67 with optional housing		
Sender	ES01-5 S		
Operating voltage	4 ... 6		V_{DC}
max. operating current	50		mA
Optical power	0,8 ... 1,0		mW
Laser class	2		
Wavelength	630 ... 690		nm
Receiver	ES01-5 E		
Operating voltage	4,5 ... 5,5		V_{DC}
max. operating current	20		mA
Analogue output voltage	0....2.5		V
Output current	8		mA
max. frequency	10		kHz

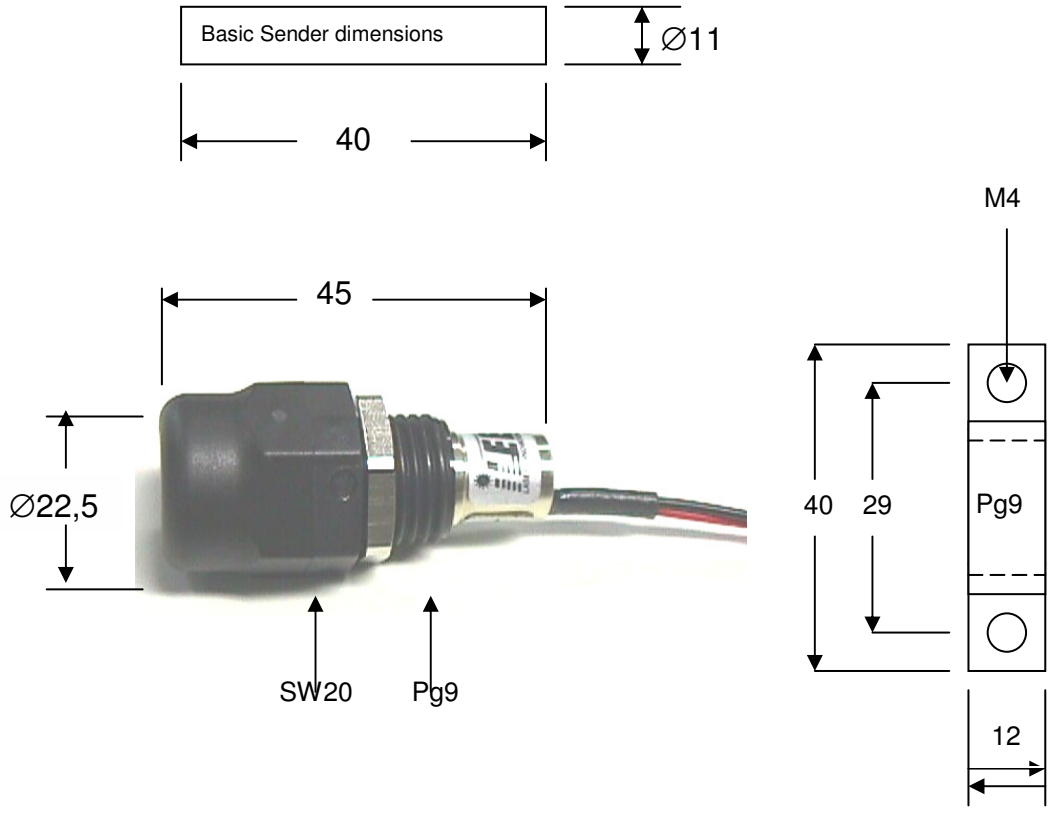
Unless noted, all data are valid at room temperature and normal operating conditions

I.L.E.E. AG - **CH 8902 Urdorf**
Tel +41 (0)44 736 11 11, Fax +41 (0)44 736 11 12
E-mail: office@ilee.ch / Internet: www.ilee.ch

Connection diagram Sender

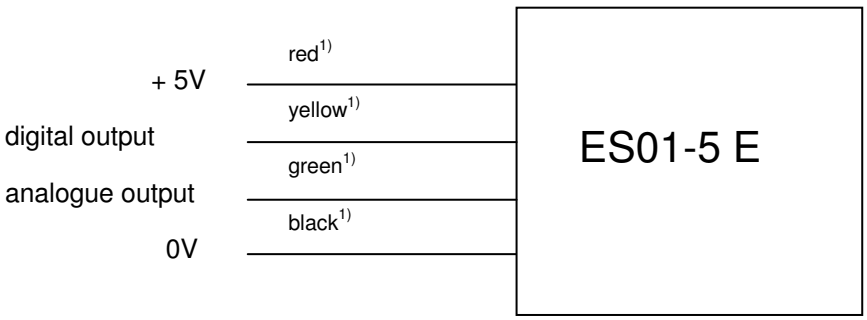


Dimensions



I.L.E.E. AG - **CH 8902 Urdorf**
Tel +41 (0)44 736 11 11, Fax +41 (0)44 736 11 12
E-mail: office@ilee.ch / Internet: www.ilee.ch

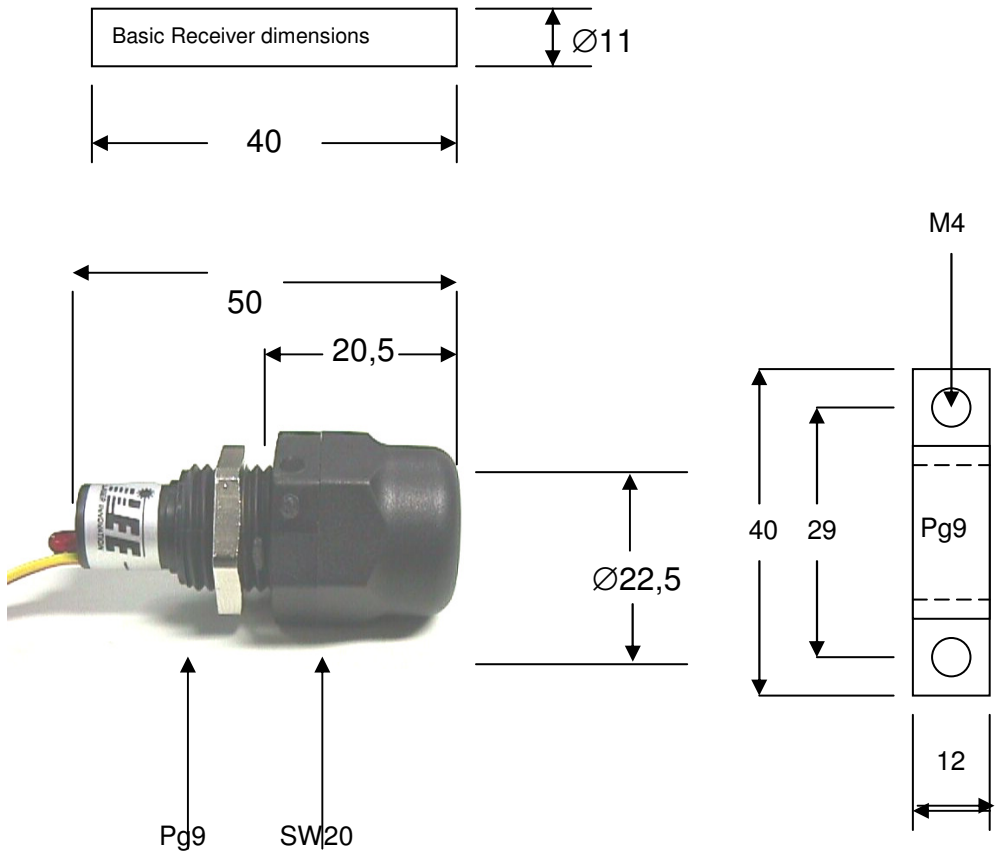
Connection diagram Receiver



1) Alternate pin connection for flat flexible cable:

+5V	brown instead of red
digital	orange instead of yellow
analogue	red instead of green
0V	yellow instead of black

Dimensions



I.L.E.E. AG - **CH 8902 Urdorf**
Tel +41 (0)44 736 11 11, Fax +41 (0)44 736 11 12
E-mail: office@ilee.ch / Internet: www.ilee.ch