

## PE500146

### Laser sensors • Line sensors receivers

Laser Sensor, Line Sensor Receiver, 20x75x98mm, Sn: 2 m, 22–26 V DC, PNP/NPN push-pull, 0–10 V/4–20 mA, M9 8-pin connector, IP54, anodized aluminum, laser diode, red light



Optical sensors operate contactless. They detect objects regardless of their characteristics (e.g., shape, color, surface texture, material). Their basic principle of operation is based on the transmission and reception of light. There are three versions: 1. The through-beam sensor consists of two separate devices—a transmitter and a receiver—that are aligned with each other. When the light beam between the two devices is interrupted, the switching output integrated into the receiver changes its status. 2. In a reflective light barrier, the transmitter and receiver are housed in a single device. The transmitted light beam is reflected toward the receiver by a reflector mounted opposite it. As soon as the light beam is interrupted, the switching output integrated into the device changes its status. 3. In a diffuse reflection sensor, the transmitter and receiver are housed in a single device. The emitted light beam is reflected by the object to be detected. As soon as the receiver detects the reflected light, the switching output integrated into the device changes its status.

**Electrical features**

Display	LED display
Resolution	0.008 mm
Type of communication interface, transmitter + receiver	Connector M9
Type of switching function	Normally open (NO for PNP) Normally closed (NC for NPN)
Type of analog output	0 - 10V   4 - 20mA
Type of electrical connection	Connector M9
Type of switching output	Push-pull
Rated switching current	100 mA
Setting procedure	Parameterization
Laser power	0.4 mW
No-load current	200 mA
Number of pins	8
Number of pins of communication interface, transmitter + receiver	4
Residual ripple	10 %
Switching frequency	2000 Hz
Scanning function	Light-/dark-on mode
Absolute repeat accuracy	0.008 mm
Type of plug-in contact, communication interface	Female (socket)
Type of plug-in connection, communication interface	Connector M5
Number of pins of interface connection	4
Supported communication interface	RS232
Operating voltage (DC)	21,6 - 26,4 V
Measuring range	0 - 2000 mm
Measurement frequency	2000 Hz

**Mechanical features**

Number of configurable switching outputs	3
Design	Cuboid
Width	98 mm
Field height	48 mm
Height	20 mm
Storage temperature	-20 - 85 °C
Length	75 mm
Surface	teflon coated
Degree of protection (IP)	IP54
Housing material	Aluminum
Ambient temperature	-10 - 50 °C

**Optical features**

Filter	Interference filter
Light source	Laser diode, red light
Light beam form	Line
Wavelength of the sensor	670 nm

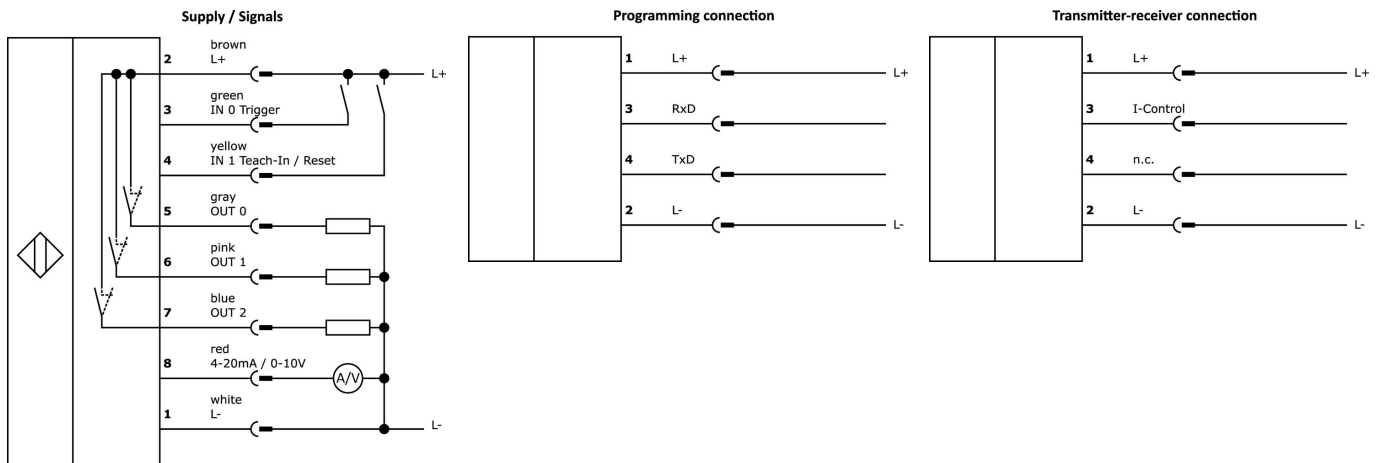
**Classification**

ETIM 8

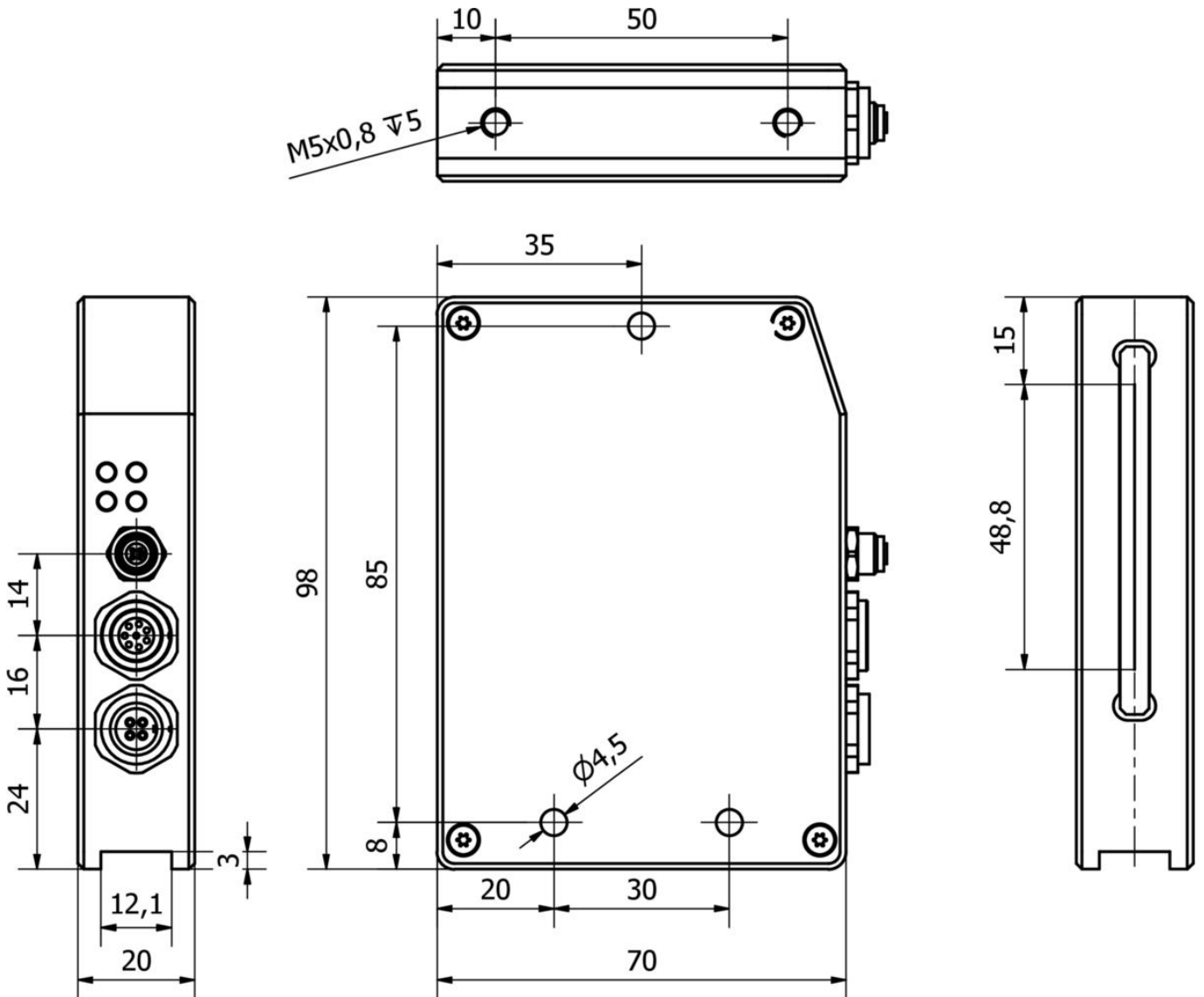
**More**

IPF Product Group	165 laser line sensors
packaging dimensions	160 x 99 x 60 mm
gross weight	244 g
Customs tariff number	85365019
WEEE number	40951076
POP-compliant	Yes
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



Dimensional drawing



**Extract accessories program**

**VK207B41**



Connection cable, 2m, M9 connector 8-pin angular, free cable end, 8x0.14mm<sup>2</sup>, PUR (polyurethane), 125V, IP67, shielded, oils and cooling lubricants, welding area

**VK207B45**



Connection cable, 2m, M9 Male (connector) 8pin Straight, Free conductor end, 8x0.14mm<sup>2</sup>, PUR (Polyurethane), 125V, IP67, Shielded, Oil and cooling lubricants, Welding area

**PS500046**



Sensor laser, line sensor transmitter, 105x30x125mm, aperture 48, Sn: 2m, 22-26V DC, plug connector M9 4-pin, IP54, aluminum anodized/anodized, laser diode, red light

**AP000032**



accessories laser, Cross-arm, 20x21x400mm, Aluminum

**AP000033**



accessories laser, Cross-arm, 20x21x600mm, Aluminum

**VK207F44**



Connection cable RS232/Sub-D, 2m, M5 Male (connector) Straight, D-Sub Male (connector) 9pin Straight, PUR (Polyurethane)

**VKSI0297**



Connection cable RS232/Ethernet, 0.5m, M5 connector 4-pin straight, M12 connector 4-pin straight, D-coding, PUR (polyurethane), aluminum

**VK000053**



Screw plug, M5, Plastic, Black

**VK107F46**



Connection cable, 1m, M9 connector 4-pin straight, M9 connector 4-pin straight, 4-core, PUR (polyurethane)

You can find further accessories on our homepage



**Installation**

Mounting / installation may only be carried out by a qualified electrician!



**Disposal**

WEEE number according to § 6 para. 3 ElektroG: 40951076

**Safety warnings**

/ Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

/ Never use these devices in applications where the safety of a person depends on their functionality.

/ Any software, drivers or IODD files that may be required to operate your device can be downloaded free of charge from our homepage: [www.ipf-electronic.com](http://www.ipf-electronic.com)