

diffuse-reflection laser sensor

dimensions 11 x 43.5 x 20mm
 sensing range adjustable up to 150mm



- ✓ plastic housing
- ✓ high switching frequency
- ✓ short-circuit and reverse polarity protected
- ✓ LED-display
- ✓ M8-connector, 4-pin

sensing range up to 150mm
laser protection class 1

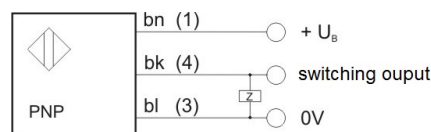


Technical Data

PT98E110

operating voltage	10 ... 30V DC
residual ripple	< 10%
voltage drop	< 1.5V
output current (max. load)	100mA
current consumption (w/o load)	max. 35mA
response time	250µs
sensing range	0 ... 150mm
transmitting element	laser diode, red light
output	npn
output function	NO / NC switchable
adjustment	adjusting screw, 6 turns
switching frequency	2kHz
functional reserve	LED green
switching status display	LED yellow
protection class (EN 60529)	IP 67
temperature (operating)	-25 ... +55 °C
temperature (storage)	-25 ... +70 °C
insulation strength	500V AC, 1min between electronics and housing
insulation resistance	>20MΩ, 500V DC between electronics and housing
vibration resistance	0.5mm amplitude, 10...55Hz frequency in each axis (EN60088-2-6)
shock resistance	11ms (30G), 6 shocks for each axis (EN60068-2-27)
tightening torque max.	0.5Nm
connection	M8-connector, 4-pin
material (housing)	PBT (LED-cover PC)
material (front screen)	PMMA
connection accessories	e.g. VK200375
mounting accessories	AY000118

connection:

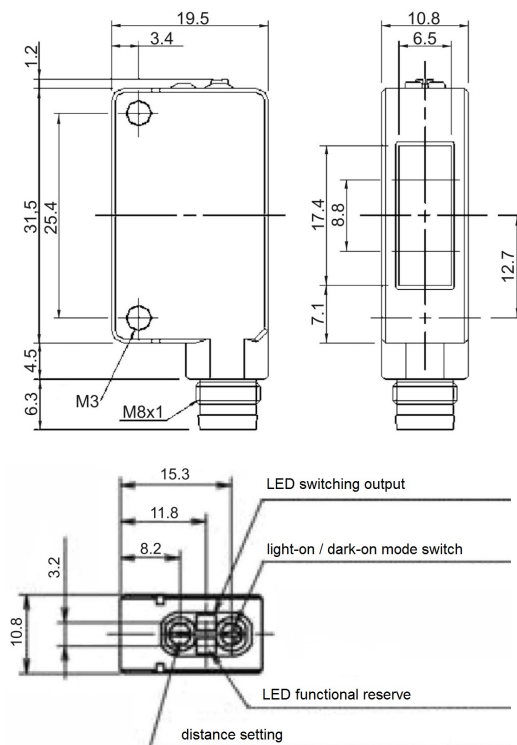


bn=brown, bk=black, bl=blue
 terminal marking of cable socket in brackets

article-no.: **PT98E110**

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

dimensional drawing



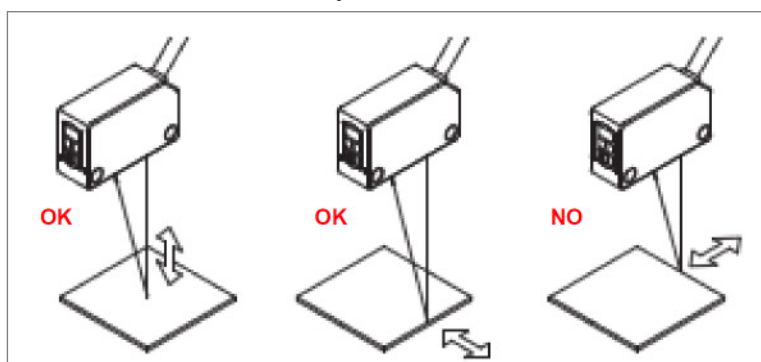
control elements:

LED-displays: The output-LED (yellow) shows the status of the switching output. The functional reserve-LED (green) indicates that the switching output is safely switched on or off. If it doesn't light up, there is an unstable switching condition.

light-on-/dark-on mode: With this trimmer, the receiver is switched to light-on mode (NO) or dark-on mode (NC). Turn the trimmer always up to the respective stop.
Attention: The trimmer has an operating angle of 260°. Please turn it carefully, never turn beyond the stops! The maximum tightening torque is 0.05Nm.

distance setting: With this screw the receiver lens is set to the desired distance. All in all, 6 turns are possible. By turning beyond the stops, a click is heard.

installation: Install the sensor and the objects as shown in the dimensional drawings!



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Adjustment:

- 1 Install the sensor. While mounting, please be aware of the max. tightening torque of 0.5Nm.
- 2 Position the object to be detected within the sensor's beam path.
- 3a The yellow LED lights up: turn the adjusting screw first counterclockwise till the LED switches off. Then turn the screw clockwise till the yellow LED lights up (point A).
- 3b. The yellow LED doesn't light up: turn the adjusting screw clockwise till the yellow LED lights up.
4. Remove the object to be detected. The yellow LED turns off. Now turn the adjusting screw clockwise till the LED lights up again (point B). If the end of the adjusting range is reached without the yellow LED lights up, this endpoint serves as point B. Where applicable, count the turns yourself.
5. Position the adjusting screw now on the center point between A and B.
6. A sufficient functional reserve is given, if the green LED lights up both at detection and non-detection of the object.

