

... for the widest range of applications!



Features

- Infrared sensor based on triangulation proximity technology
- Built-in signal processing
- Insensitive to variable light conditions
- Plug-and-play system
- Easy to install
- Integrated status LEDs
- PNP output (TPS 100 and TPS 200)
- PNP or NPN output (TPS 210 only)
- Test input (TPS 100 only)

Technical data

Type	TPS 100	TPS 200	TPS 210
Light beams	2	2	2
Detection levels	2	2	1
Outputs (A or B)	1 (PNP)	2 (PNP)	2 (PNP or NPN)
Direction recognition	No	No	Yes, max. 5 m/s with 0.2 m wide object
Test input	Yes	No	No

Optical

Technology	Two beam infrared triangulation sensor
Operating range	0.1 ... 2 m
Trigger level	0.3 ... 2 m
Distance detection accuracy:	
± 5 mm @ 0.5 m	With Kodak white and gray test card
± 10 mm @ 1 m	With Kodak white and gray test card
± 20 mm @ 2 m	With Kodak white and gray test card
Distance detection hysteresis	< 2% with Kodak white test card
Light beam diameter	22 mm
Max. ambient light	100,000 Lux

Mechanical

Dimensions (w x h x d)	150 x 48 x 26 mm
Housing material	Polycarbonate (PC), black
Enclosure rating	IP65
Connection	Standard: 4-pin M8 connector, male
Cable	0.15 m pig-tail incl. connection cable 5 m
Temperature range	-40° ... +65°C

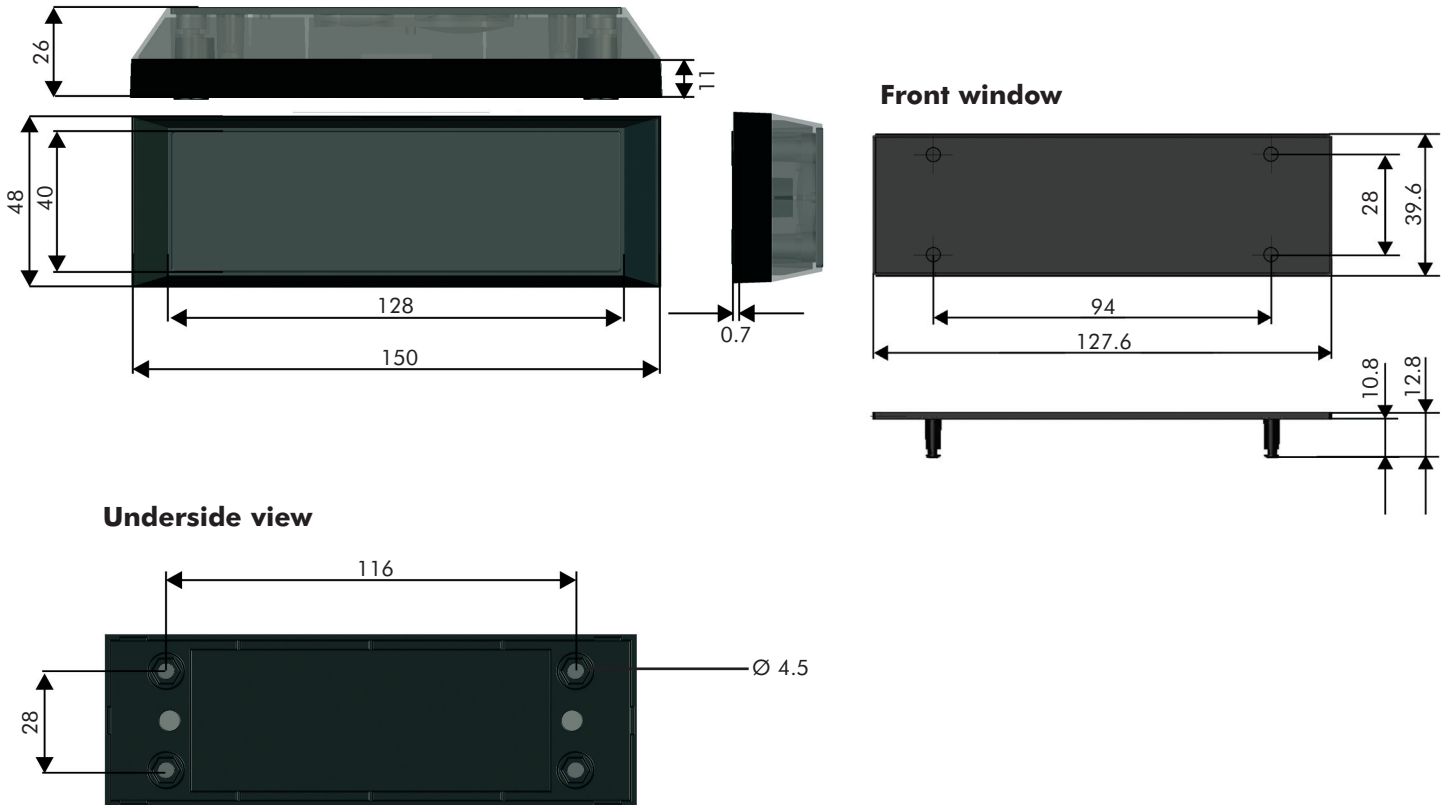
Electrical

Supply voltage U_{SP}	10 ... 30 VDC
Ripple @ U_{SP}	Max. 10%
Current consumption @ 24 V	Max. 40 mA
Output load	Max. 50 mA, max. 100 nF
Beam indicator	Two red LEDs, one red LED for each light beam
Output puls duration (TPS 210 only)	200 ms

General

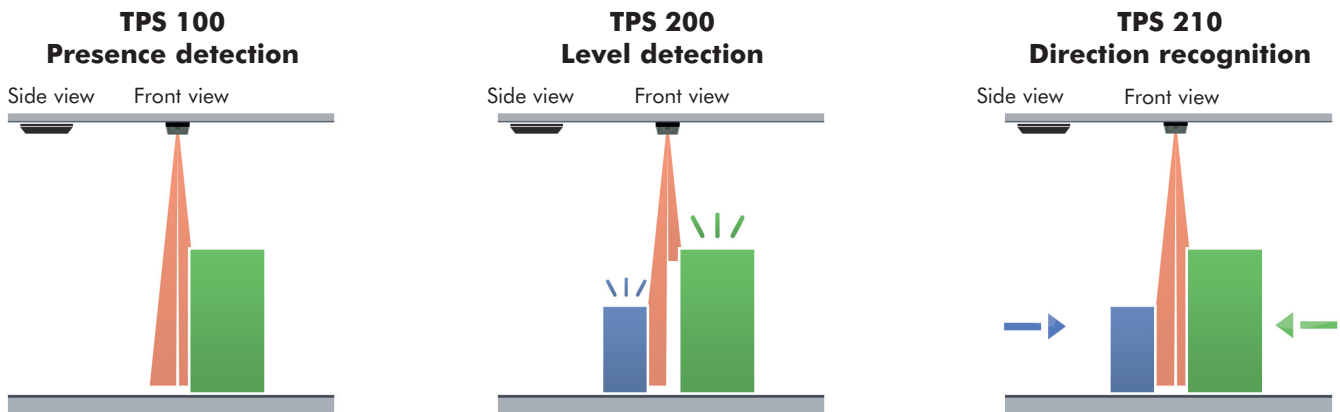
Eye safety norm	EU Directive 2006/25/EG Annex I
EMC emission	EN 61000-6-3
EMC immunity	EN 61000-6-2
Vibration	EN 60068-2-6
Shock	EN 60068-2-27
RoHS	Fulfilled 2002/95/EC
Certificate	CE

Dimensions



(All dimensions in mm)

Types



Ordering information

Part no.	Type	Description
106 676	TPS 100 PNP	Presence detection sensor, PNP output, with 5 m connecting cable
106 677	TPS 200 PNP	Level detection sensor, PNP output, with 5 m connecting cable
106 678	TPS 210 PNP	Direction recognition sensor, PNP output, with 5 m connecting cable
109 843	TPS 210 NPN	Direction recognition sensor, NPN output, with 5 m connecting cable

Other configurations on request

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