



## Order designation

TOF-2D; Time-of-Flight (TOF) Sensor

### TOF-2D-AN:

Angle/Potentiometer

**Art.-No. 10001855**

### TOF-2D-AN-B:

Angle/Potentiometer/Blanking

**Art.-No. 10001856**

### TOF-2D-CN:

Center/Potentiometer

**Art.-No. 10001695**

### TOF-2D-CN-B:

Center/Potentiometer/Blanking

**Art.-No. 10001854**

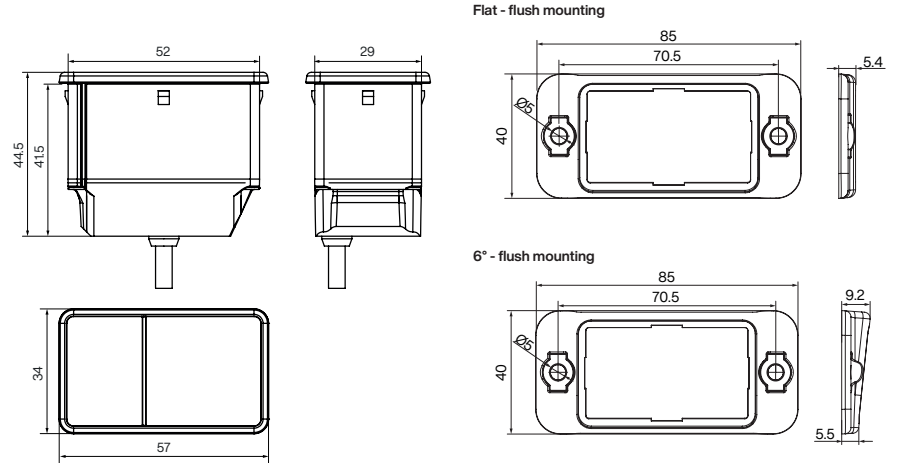
## Features

- Excellent detection capability, independent of reflectance
- Individual setting of the detection area
- Detection area operates with all types of background
- Triggers alarm if an object blocks approach

## Typical Applications

- Monitors emergency exit zones to keep them clear
- Occupancy detection of areas
- Triggering switching operations

## Dimensions



All dimensions in mm

## Technical Data

General data	
Eye safety	EN 62471:2008
EMV emission	EN 61000-6-3:2007 EN 12015:2014
EMV Immunity	EN 61000-6-2:2005 EN 12016:2013
Vibration	IEC 60068-2-6:2007
Shock	IEC 60068-2-27:2008
RoHS	2011/65/EU
Certificate	CE, UKCA
Optical	
Detection area	
- Length	Min. 0 ... 400 mm; Max. 0 ... 2,000 mm
- Width	Min. 0 ... 400 mm; Max. 0 ... 2,000 mm

Mechanical	
Dimensions (w x h x l)	57 x 34 x 44.5 mm
Housing material	Polycarbonate
Housing color	Black
Enclosure rating	IP65
Temperature range	-20 °C ... +65 °C

Electrical	
Supply voltage $U_{sp}$	24 V DC $\pm$ 20%
Current consumption at 24 VDC	50 mA (peak max. 0.5 A)
Output	PNP/NPN (push-pull)
Max. response time	200 ms
Min. switching time	200 ms
Power-on time	1 s

### Sensor: Connection cable and electrical connections

Length	0.25 m
Connection	M8, 6-pin
Diameter	$\varnothing$ 4.2 mm
Material	PVC, black
Plug color	Blue

### Zulassungen und Zertifikate

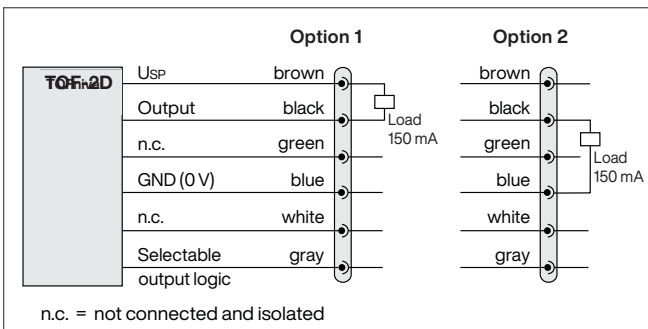
CE	may be operated in all countries of the European Community. In other countries, the applicable national regulations must be observed.
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## Technical Data

### Connection cable and electrical connections

Length	2 m (other lengths on request)
Connection	M8, 6-pin
Diameter	Ø 4.2 mm
Material	PVC, black
Plug color	Blue
Wires	AWG26
• brown	U <sub>SP</sub>
• black	Output
• green	Not connected
• blue	GND (0 V)
• white	Not used
• gray	Selectable output logic

## Connection diagram



## Logic selector

Logic selector connected to U<sub>SP</sub>

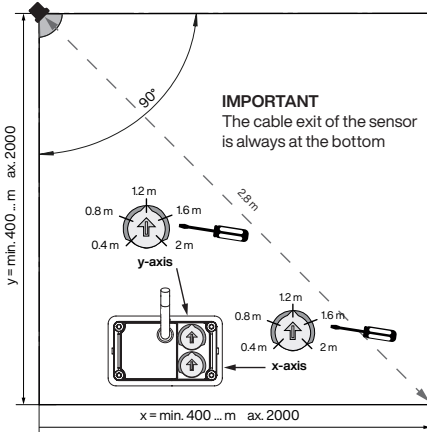


Logic selector connected to GND (0 V)

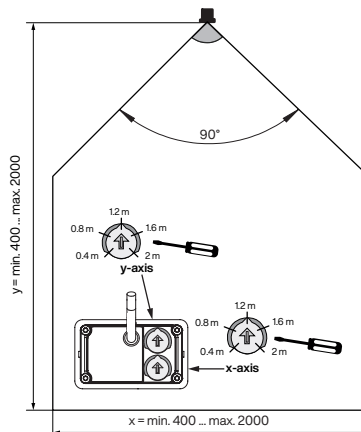


Wire before commissioning, as the logic selector input is only evaluated when switched on.

## Detection areas



A type (angle)



C type (center)

Parameter	Value
Operating range x-axis	Min.: 0 ... 400 mm Max.: 0 ... 2,000 mm
Operating range y-axis	Min.: 0 ... 400 mm Max.: 0 ... 2,000 mm
Aperture angle	90°

## Accessories

	Included in delivery			NOT included in delivery			
	Shipping kit – Flush mounting	Connection cable, M8 x 1, 6-pin		Shipping kit – surface mounting	Shipping kit – surface mounting	Shipping kit – surface mounting corner	
Art.-No.	10001858	10001862	10001863	10001864	10001859	10001860	10001861
Dimensions (w x h x d)	<ul style="list-style-type: none"> <li>Flat frame: 85 x 5.4 x 40 mm</li> <li>6° frame: 85 x 9.23 x 40 mm</li> </ul>	Length: 2 m	Length: 5 m	Length: 10 m	89 x 46 x 44 mm	76 x 73.06 x 44 mm	88.5 x 63 x 44.4 mm
Material	<ul style="list-style-type: none"> <li>Frames: ASA, black</li> <li>Clips: Nylon, black</li> </ul>	Diameter: Ø 4,2 mm Material: PVC Open wires: AWG26, 6 pcs. Plug: screwable, blue			ASA, black	ASA, black	ASA, black