

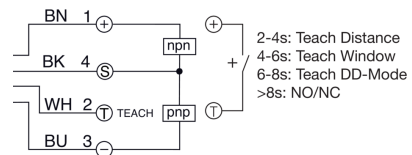
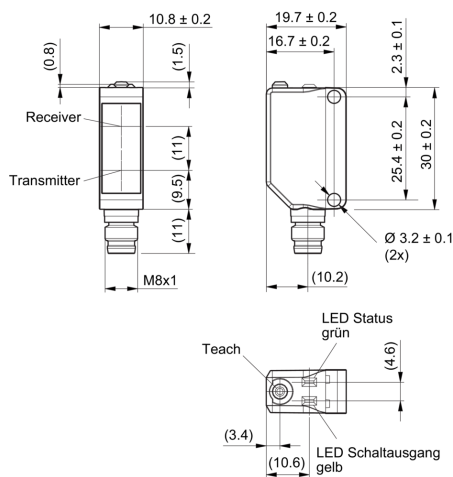


214892

OH33-LRML-TI-G3-T4

Laser diffuse sensor with background suppression

- Compact design
- Long range
- Ideal background suppression
- Laser red light with small light spot
- DD mode - simultaneous evaluation of intensity and distance
- Push-pull output with pnp or npn function
- Switch for light/dark switching
- IO-Link
- Measuring function



BK: black

BN: brown

BU: blue

WH: white

Function



Technical data (typ.)

+20°C, 24 V DC

Electrical features

Service voltage	10 ... 30 V DC
No-load current (max.)	< 30 mA
Inverse polarity protection	Yes
Short-circuit protection	Yes

Mechanical features

Housing dimensions	31 x 20 x 11 mm
Housing length	20 mm
Housing height	31 mm
Housing width	11 mm
Housing material	Plastic
Material	Plastic (Window / optics)
Weight	20 g

Certifications, approvals

Protection class	III
Approvals	UL


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Technical data (typ.)		+20°C, 24 V DC
General features		
Operating principle	Diffuse sensor with background suppression	
Evaluation	digital	
Design	Cuboid design	
Werkseinstellung	Switching frequency (40 Hz (PRECISION))	
Output, input, interface		
Switching output	Push-pull, 100 mA, NO/NC, switchable	
Voltage drop (max.)	1 V	
Interface	IO-Link (V1.1, COM2 38.4 kBd, Smart Sensor Profile)	
Optical data		
Light source	Laser	
Laser class	CLASS 1 LASER PRODUCT, (IEC 60825-1:2014 / EN 60825-1:2014)	
Color	Red	
Wavelength	650 nm	
Background suppression	Yes	
Light spot size	Ø 1 mm (at distance of 300 mm)	
Detection range, measuring range, tolerance limits		
Range	20 ... 600 mm	
Standardized measuring plate	200 x 200 mm (white)	
Display, operation		
Sensitivity adjustment	Button, IO-Link	
Display	LED green - Status, yellow - Switching output 1	
Time behavior		
Switching frequency	40 Hz ... 200 Hz (40 Hz (HIGH FUNCTIONAL RELIABILITY), 200 Hz (SPEED))	
Ambient conditions		
Ambient temperature during operation	-25 ... +50 °C	
Protection type	IP 67	
Electrical connection		
Connection	Connector, M8, 4-pin	
Accessories		
Connection cable	TK ... /4	

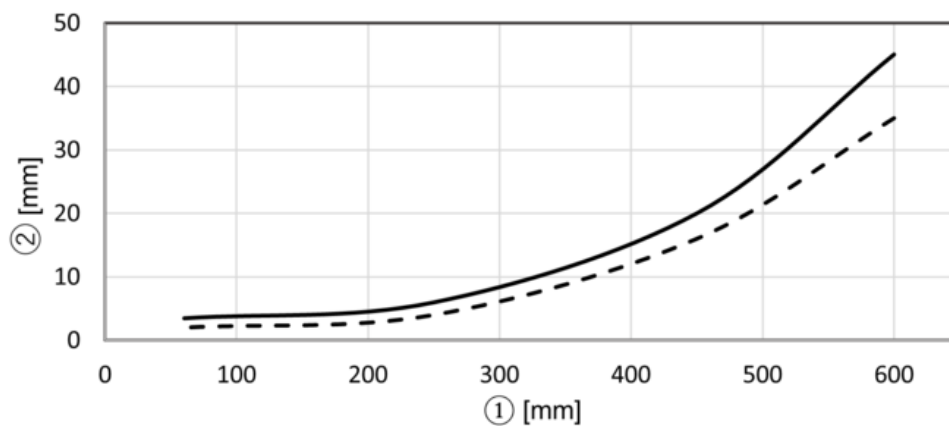


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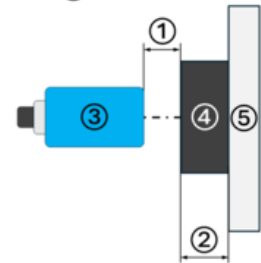
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Background suppression - precise mode



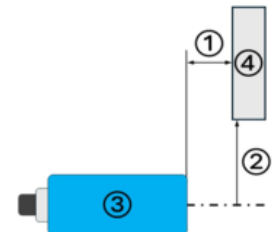
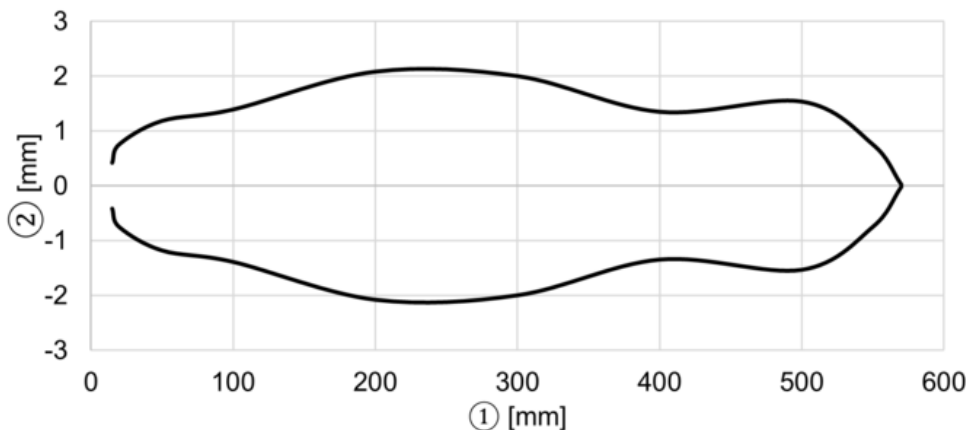
90% / 90% ⑥
6% / 90% ⑦



- 1) Distance sensor / object (mm)
2) Minimum distance between object and background (mm)
3) Sensor

- 4) object
5) Typical behavior - object black (6%) / background white (90%)
6) Typisches Verhalten - Objekt schwarz (6%) / Hintergrund weiß (90%)
7) Typisches Verhalten - Objekt weiß (90%) / Hintergrund weiß (90%)

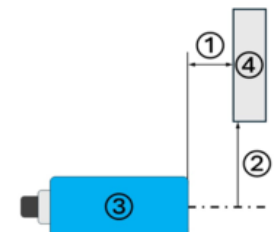
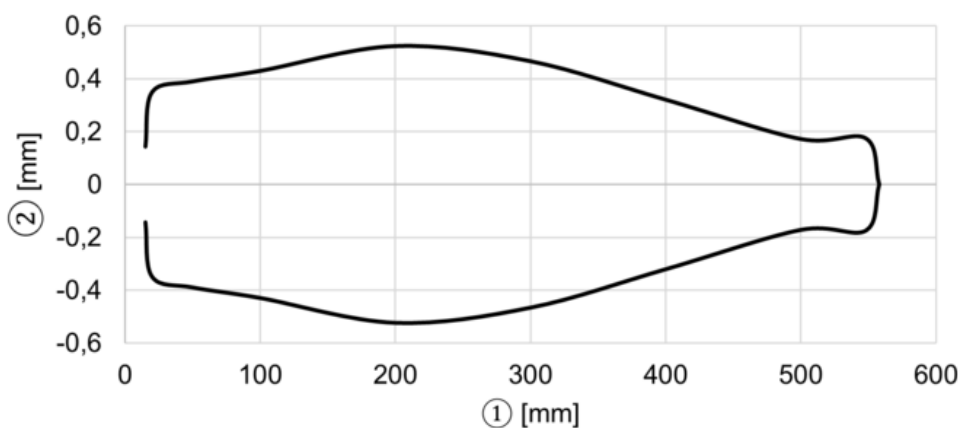
Typical detection diagram (white 90%) - Precise mode (Factory setting)



- 1) Distance sensor / standard target (mm)
2) Offset (mm)

- 3) Sensor
4) Standard target

Typical detection diagram (white 90%) - Fast mode



- 1) Distance sensor / standard target (mm)
2) Offset (mm)

- 3) Sensor
4) Standard target

More information / accessories

<https://www.di-soric.com/214892>



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