

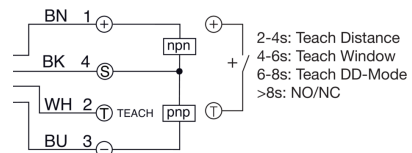
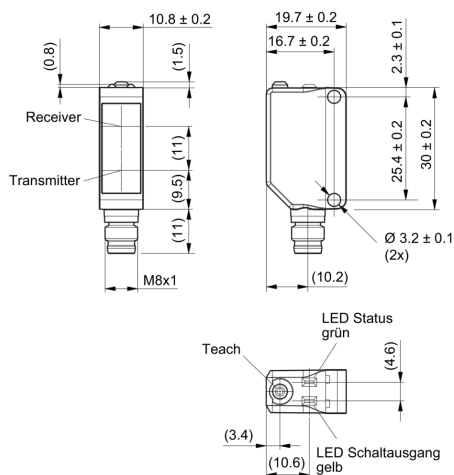


214894

OH33-LRMN-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
- Sensing range and window function can be parameterized in mm



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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Laser diffuse sensor with background suppression
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 (150 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 ... 300 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	150 Hz ... 500 Hz (150 Hz (HIGH FUNCTIONAL RELIABILITY), 500 Hz (SPEED))
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Ambient conditions

Ambient temperature during operation	-25 ... +50 °C
Protection type	IP 67

Electrical connection

Connection	Connector, M8, 4-pin
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Accessories

Connection cable	TK ... /4
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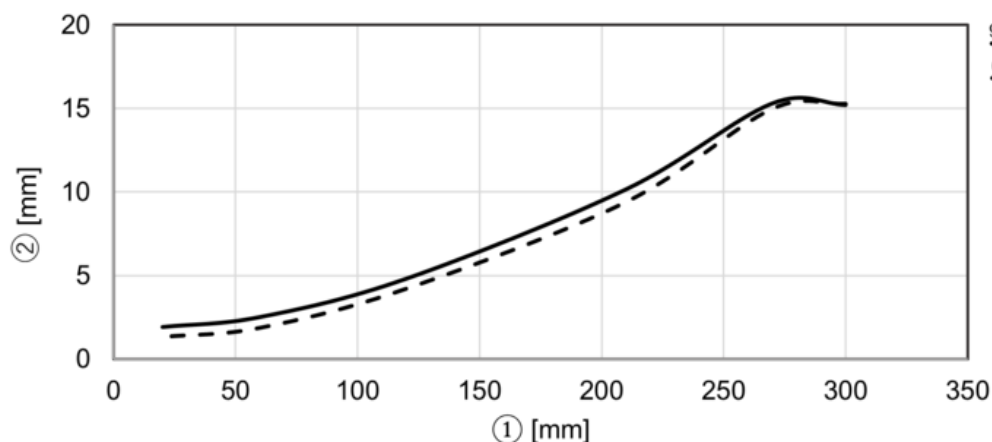


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OH33-LRMN-TI-G3-T4

Laser diffuse sensor with background suppression

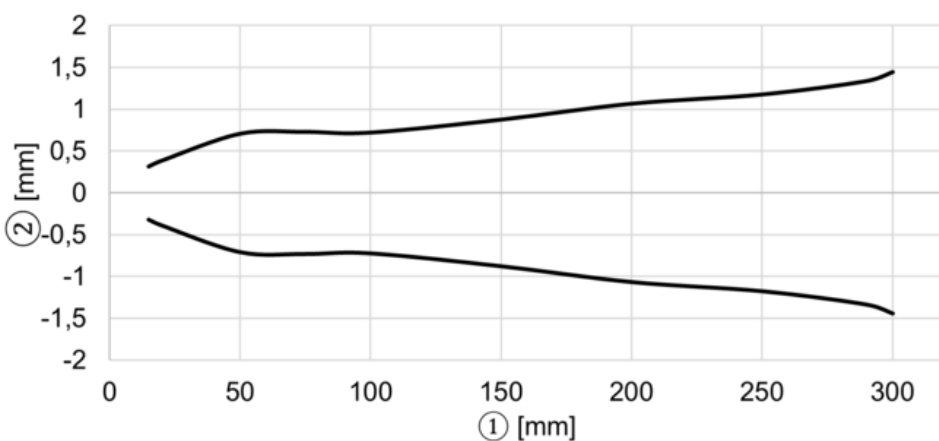
Background suppression - precise mode



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

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

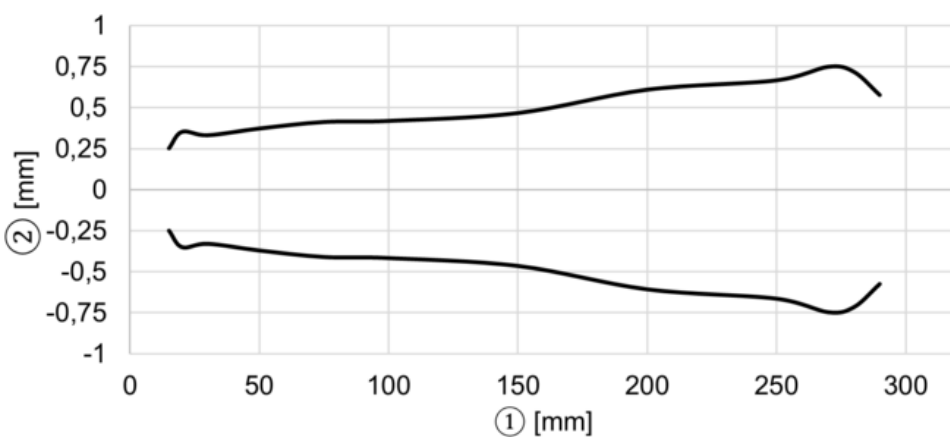
Typical detection diagram (white 90%) - Precise mode (Factory setting)



- 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

**214894****OH33-LRMN-TI-G3-T4****Laser diffuse sensor with background suppression**[More information / accessories](#)<https://www.di-soric.com/214894>