

Technical data sheet

Diffuse sensor with background

Part no.: 50144701

HT10L1-25M.3/L66-M12



Figure can vary

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Technical data

Basic data

Series	10
Operating principle	Diffuse reflection principle with background suppression
Application	Compartment fine positioning Exact object positioning Push-through protection in pallet warehouse
Type of scanning system	Optimized for use with reflective tape

Special version

Special version	3 independent switching points
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Optical data

Operating range	Guaranteed operating range
Operating range	0.1 ... 25 m
Operating range limit	Typical operating range
Operating range limit	0.1 ... 25 m
Beam path	Collimated
Light source	Laser, Red
Laser light wavelength	658 nm
Laser class	1, IEC / EN 60825-1:2014
Transmitted-signal shape	Pulsed
Light spot size [at sensor distance]	25 mm x 25 mm [25,000 mm]
Type of light spot geometry	Rectangular

Electrical data

Protective circuit	Polarity reversal protection Short circuit protected Transient protection
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Performance data

Supply voltage U_B	18 ... 30 V, DC
Residual ripple	0 ... 15 %, From U_B
Open-circuit current	0 ... 150 mA

Outputs

Number of digital switching outputs	3 Piece(s)
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Switching outputs

Voltage type	DC
Switching voltage	high: $\geq(U_B - 2V)$ Low: $\leq 2V$

Switching output 1

Assignment	Connection 1, pin 4
Switching element	Transistor, Push-pull
Switching principle	IO-Link / light switching (PNP)/dark switching (NPN)

Switching output 2

Assignment	Connection 1, pin 2
Switching element	Transistor, Push-pull
Switching principle	Light switching (PNP)/dark switching (NPN)

Switching output 3

Assignment	Connection 1, pin 5
Switching element	Transistor, Push-pull
Switching principle	Light switching (PNP)/dark switching (NPN)

Timing

Switching frequency	40 Hz
Response time	50 ms
Readiness delay	300 ms

Interface

Type	IO-Link
IO-Link	
COM mode	COM2
Frame type	2.1
Port type	A
Specification	V1.1
SIO-mode support	Yes
Process data IN	1 byte
Min. cycle time	COM2 = 2.3 ms

Connection

Connection 1

Function	Signal OUT Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Plastic
No. of pins	5 -pin
Encoding	A-coded

Mechanical data

Dimension (W x H x L)	25 mm x 65 mm x 55 mm
Lens cover material	Glass
Net weight	70 g
Housing color	Red
Type of fastening	Through-hole mounting Via optional mounting device

Operation and display

Type of display	LED
Operational controls	Membrane keyboard
Function of the operational control	Range adjustment

Environmental data

Ambient temperature, operation	-40 ... 50 °C
Ambient temperature, storage	-40 ... 70 °C

Certifications

Degree of protection	IP 67
Protection class	III
Certifications	c UL US

Classification

Customs tariff number	85365019
eCl@ss 8.0	27270904
eCl@ss 9.0	27270904
ETIM 5.0	EC002719
ETIM 6.0	EC002719

Electrical connection

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Plastic
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment
1	V+
2	OUT 2
3	GND
4	IO-Link / OUT 1
5	OUT 3

Operation and display

LED	Display	Meaning
1 PWR	Green, continuous light	Ready
	Red, continuous light	Sensor error
	Orange, continuous light	No function reserve
	Off	No supply voltage
2 Q1	Yellow, continuous light	Object detected
3 Q2	Yellow, continuous light	Object detected
4	Yellow, continuous light (behind lens cover)	Object detected
5	Yellow, continuous light (behind lens cover)	Object detected

Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50132079	KD U-M12-5A-V1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
	50133802	KD U-M12-5W-V1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

Accessories

Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50117252	BTU 300M-D12	Mounting system	Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

Note



🔗 A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.