



Part no.: 50107496
HRTR 55/66-XL-S8
Diffuse sensor with background suppression



Figure can vary



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Technical data

Basic data	
Series	55
Operating principle	Diffuse reflection principle with background suppression
Special design	
Special design	All stainless steel housing Extra long light spot (XL)
Optical data	
Operating range	Guaranteed operating range
Operating range, white 90%	0.005 ... 0.1 m
Operating range, gray 18%	0.005 ... 0.09 m
Operating range, black 6%	0.005 ... 0.08 m
Operating range limit	Typical operating range
Operating range limit	0.005 ... 0.1 m
Beam profile	Divergent
Light source	LED , Red
LED light wavelength	620 nm
LED group	1
Transmitted-signal shape	Pulsed
Light spot size [at sensor distance]	3 mm x 40 mm [50 mm]
Type of light spot geometry	Rectangular
Electrical data	
Protective circuit	Polarity reversal protection Short circuit protected
Performance data	
Supply voltage U_B	10 ... 30 V , DC
Current consumption, max.	
Residual ripple	0 ... 15 % , From U_B
Open-circuit current	0 ... 15 mA
Outputs	
Number of digital switching outputs	2 Piece(s)
Switching outputs	
Voltage type	DC
Switching current, max.	100 mA
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	Light switching (PNP)/dark switching (NPN)
Switching output 2	
Assignment	Connection 1, pin 2
Switching element	Transistor , Push-pull
Switching principle	Dark switching (PNP)/light switching (NPN)
Timing	
Switching frequency	1,000 Hz

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Response time	0.5 ms
Readiness delay	300 ms

Connection
Connection 1

Type of connection	Connector
Function	Signal OUT Voltage supply
Thread size	M8
Type	Male
Material	Stainless steel
No. of pins	4 -pin
Encoding	A-coded

Mechanical data

Dimension (W x H x L)	14 mm x 35.5 mm x 25 mm
Housing material	Stainless steel , AISI 316L
Lens cover material	Plastic with scratch-resistant Indium protective coating
Net weight	40 g
Housing color	Silver
Type of fastening	Through-hole mounting Via optional mounting device
Compatibility of materials	CleanProof+ ECOLAB

Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)
Operational controls	Multiturn potentiometer

Environmental data

Ambient temperature, operation	-30 ... 55 °C
Ambient temperature, storage	-30 ... 55 °C

Certifications

Degree of protection	IP 67 IP 69K
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

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	
Type of connection	Connector
Function	Signal OUT Voltage supply
Thread size	M8
Type	Male
Material	Stainless steel
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment
1	V+
2	OUT 2
3	GND
4	OUT 1



Operation and display

LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
2	Yellow, continuous light	Object detected



Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50106153	K-D M8A-4P-5m-FAB	Connection cable	Connection 1: Connector, M8, Axial, Female, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: FAB
	50106155	K-D M8W-4P-5m-FAB	Connection cable	Connection 1: Connector, M8, Angled, Female, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: FAB

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Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50118542	BT 200M.5	Mounting bracket	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type, Suited for M3 screws Type of mounting device: Adjustable Material: Stainless steel
	50040269	BT 25	Mounting device	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal

Note

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