

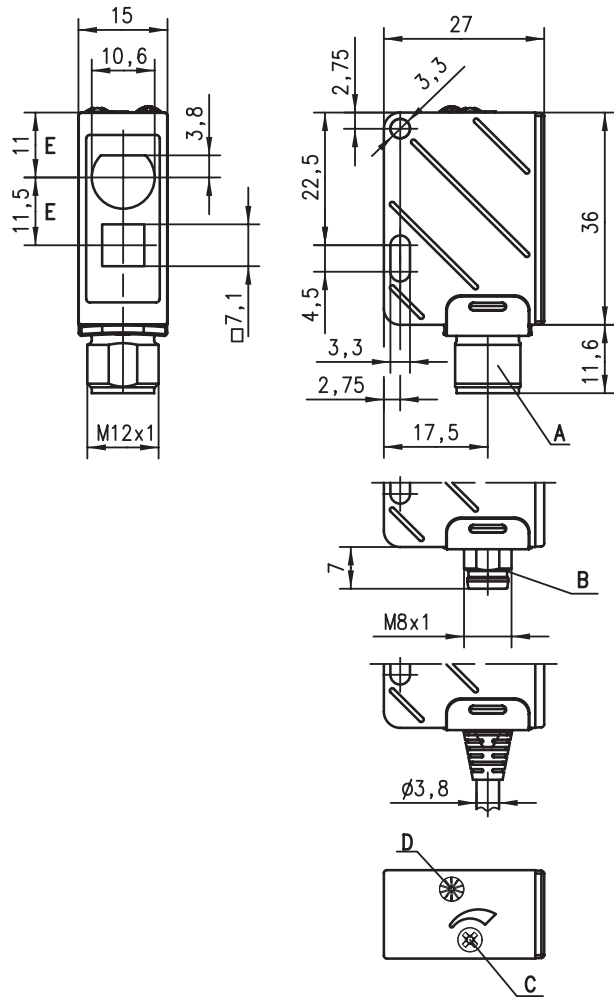


HRTR 25

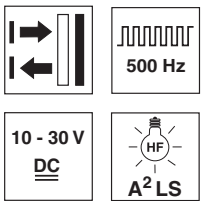
Diffuse reflection light scanner with background suppression



Dimensioned drawing



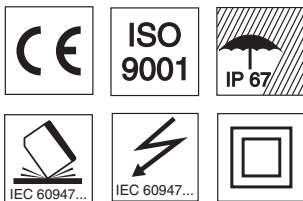
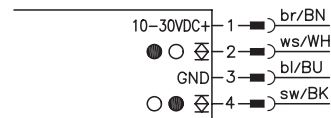
- A M12 connector
- B M8 connector
- C Scanning range adjustment
- D Indicator diode
- E Optical axis



5 ... 400mm (800mm)

- Adjustable background suppression
- A²LS - active suppression of extraneous light
- Push-pull switching outputs

Electrical connection



Accessories:

(available separately)

- M12 connectors (KD ...)
- Cable (KB ...)
- Mounting systems

We reserve the right to make changes • 25\_d02e.fm

## Specifications

### Optical data

Typ. scanning range limit (white 90%) <sup>1)</sup>	5 ... 400mm (800mm)
Scanning range <sup>2)</sup>	see tables
Mechanical adjustment range	40 ... 400mm
Light source	LED (modulated light)
Wavelength	660nm (red light)

### Timing

Switching frequency	500Hz
Response time	1 ms
Delay before start-up	≤ 100ms

### Electrical data

Operating voltage $U_B$	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of $U_B$
Bias current	≤ 20 mA
Switching output/function	2 push-pull switching outputs <sup>3)</sup> pin 2: PNP dark switching, NPN light switching pin 4: PNP light switching, NPN dark switching
Signal voltage high/low	≥ ( $U_B - 2V$ ) ≤ 2V
Output current	max. 100mA
Scanning range adjustment	mechanical via multiturn potentiometer

### Indicators

LED yellow	object detected
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### Mechanical data

Housing	plastic
Optics cover	plastic
Weight (plug/cable)	15g/55g
Connection type	M8 and M12 connector 4-pin or cable 2000mm, 4x0.2mm <sup>2</sup>

### Environmental data

Ambient temp. (operation/storage)	-20°C ... +55°C/-40°C ... +70°C
Protective circuit <sup>4)</sup>	2, 3
VDE safety class <sup>5)</sup>	II, all-insulated
Protection class	IP 67
LED class	1 (acc. to EN 60825-1:1994 +A1:2002 +A2:2001)
Standards applied	IEC 60947-5-2

- 1) Typ. scanning range limit: max. attainable range without performance reserve
- 2) Scanning range: recommended range with performance reserve
- 3) The push-pull switching outputs must not be connected in parallel
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250VAC

## Order guide

	Designation	Part No.
with M12 connector	HRTR 25/66-300-S12	500 39548
with M8 connector	HRTR 25/66-300-S8	500 39547
with 2m cable	HRTR 25/66-300	500 39546

## Tables

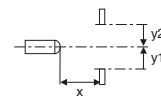
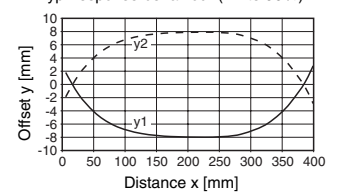
1	7	300	400 ... 800
2	9	270	340 ... 530
3	12	250	300 ... 400

1	white 90%
2	grey 18%
3	black 6%

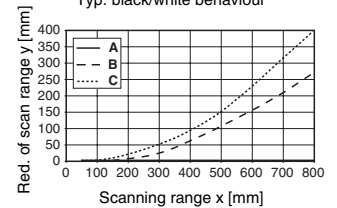
	Scanning range [mm]
	Typ. scanning range limit [mm]

## Diagrams

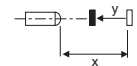
Typ. response behaviour (white 90%)



Typ. black/white behaviour



- A white 90%
- B grey 18%
- C black 6%



## Remarks