



IHRT 8

Diffuse reflection light scanner with background suppression

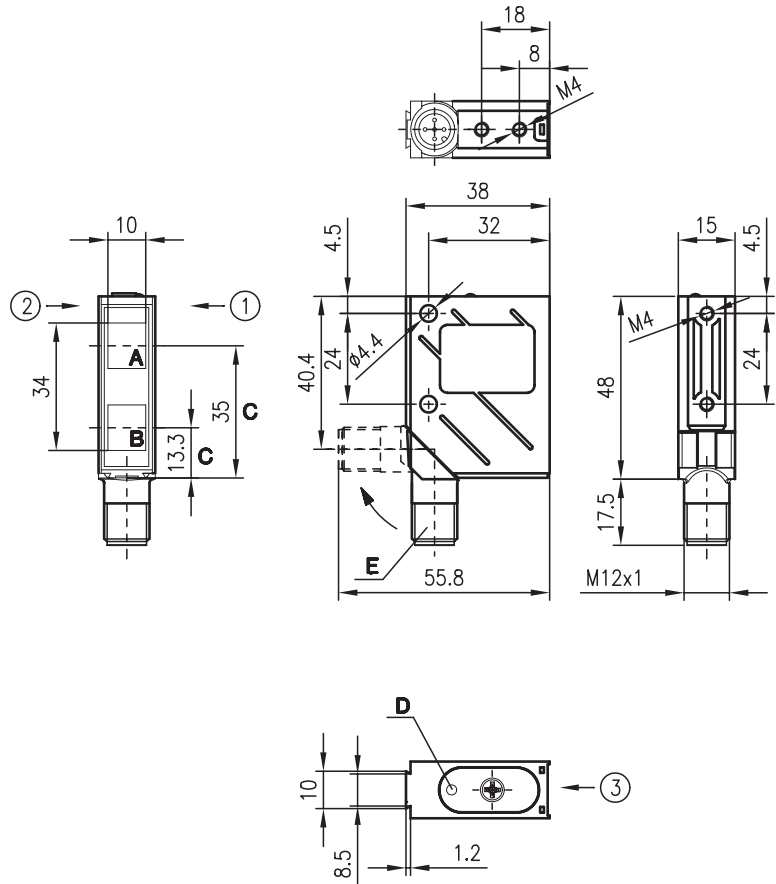


30 ... 100mm
40 ... 200mm



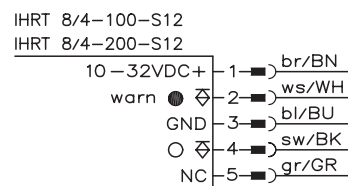
- Fixed scanning range
- Background suppression
- Warning output (soiling)
- Wire break monitoring
- PNP outputs
- Infrared light
- Mounting holes for fast installation
- M12 turning connector

Dimensioned drawing



- A** Receiver
 - B** Transmitter
 - C** Optical axis
 - D** LED yellow
 - E** 90° turning connector
- Preferred entry direction for objects ① + ② + ③

Electrical connection



Accessories:

(available separately • see page 74)

- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems

We reserve the right to make changes • 8_d11e.fm

Specifications

Optical data

	...100...	...200...
Typ. scanning range limit (white 90%) ¹⁾	30 ... 100mm	40 ... 200mm
Scanning range ²⁾	see tables	
Light source	LED (modulated light)	
Wavelength	880nm (infrared)	

Timing

Switching frequency	200Hz
Response time	2.5ms
Delay before start-up	≤ 300ms

Electrical data

Operating voltage U_B	10 ... 32VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 35mA
Switching output	pin 4: PNP light switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	max. 100mA

Indicators

LED yellow off	no reflection, warning output activated (wire break monitoring)
LED yellow on	reflection, switching output activated
LED yellow flashing	warning output activated reflection, no performance reserve warning output not activated

Mechanical data

Housing	metal
Optics cover	glass
Weight (plug)	70g
Connection type	M12 connector, 5-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	III
Protection class ⁵⁾	IP 67
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

Options

Warning output warn pin 2 PNP transistor output

Function characteristics

Switching output = Q	at reflection: Q high/QW high
Warning output = QW	at reflection, performance reserve insufficient: Q = high, QW = low
	no reflection: Q = low/QW = high

- 1) Typ. scanning range limit: max. attainable range without performance reserve
- 2) Scanning range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Functional extra-low voltage with reliable disconnection or protective extra-low voltage (VDE 0100/T 410)
- 5) In stop position of the turning connector (turning connector locked)

Order guide

	Designation	Part No.
With M12 connector		
Scanning range 100mm	IHRT 8/4-100-S12	501 03360
Scanning range 200mm	IHRT 8/4-200-S12	501 03361

Tables

...100...

1	30	100	100
2	30	100	100
3	50	100	100

...200...

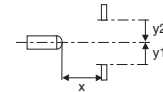
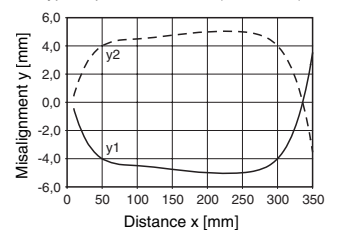
1	40	200	200
2	40	200	200
3	50	200	200

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

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

Diagrams

Typ. response behaviour (white 90%)



Remarks

Warning output with double-function:

- Contamination control
- Wire break monitoring