



# 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

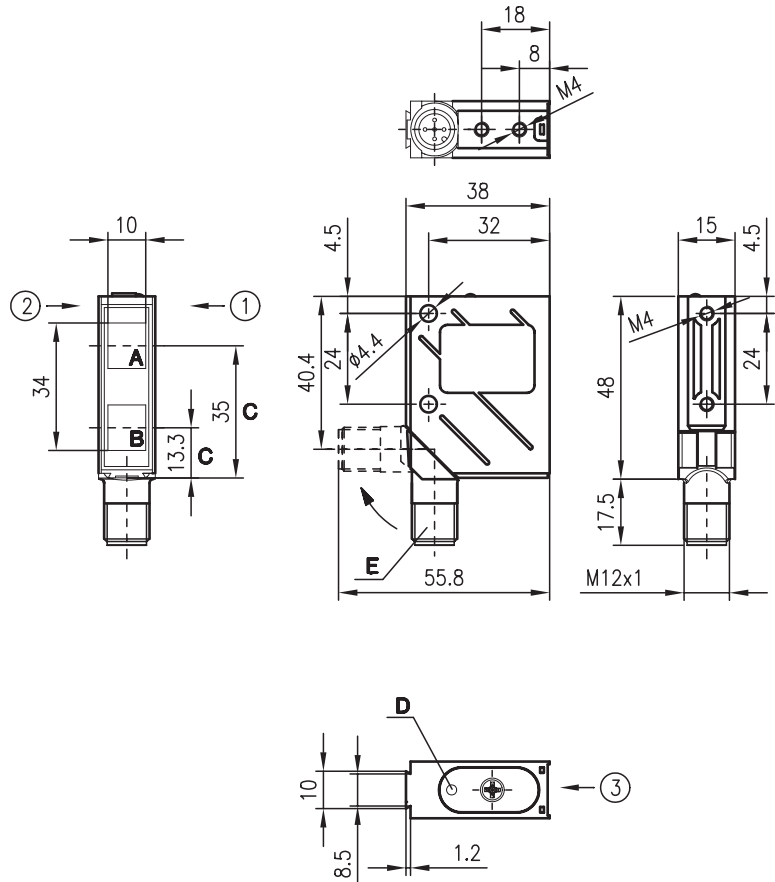


### Accessories:

(available separately • see page 74)

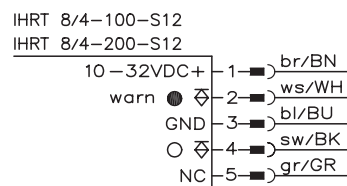
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems

### 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



We reserve the right to make changes • 8\_d11.e.fm

## Specifications

### Optical data

Typ. scanning range limit (white 90%) <sup>1)</sup>  
 Scanning range <sup>2)</sup>  
 Light source  
 Wavelength

**...100...**  
 30 ... 100mm  
 see tables  
 LED (modulated light)  
 880nm (infrared)

**...200...**  
 40 ... 200mm

### 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 <sup>3)</sup> 2, 3  
 VDE safety class <sup>4)</sup> III  
 Protection class <sup>5)</sup> 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.
<b>With M12 connector</b>		
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...

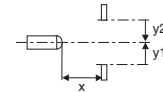
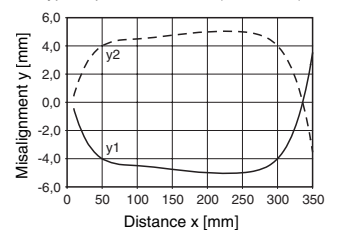
1	40	200	200
2	40	200	200
3	50	200	200

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