

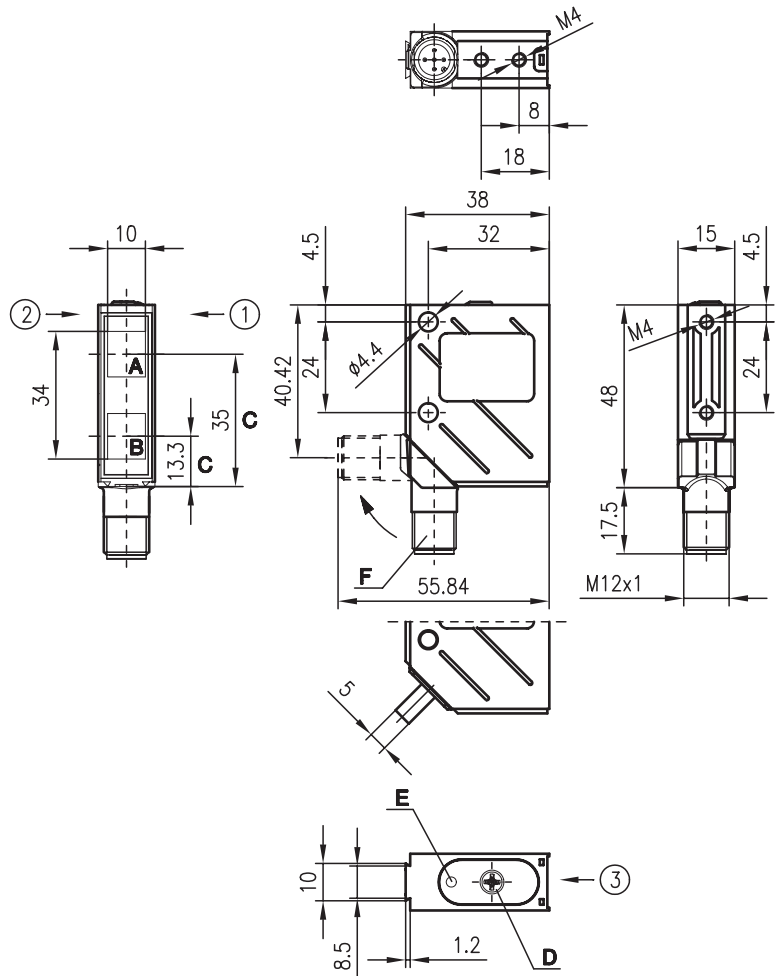


HRT 8

Diffuse reflection light scanner with background suppression



Dimensioned drawing



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

Electrical connection

HRT 8/66.6-350-S12	
10-30VDC+	1 — br/BN
● ○ ⊗	2 — ws/WH
GND	3 — bl/BU
○ ● ⊗	4 — sw/BK
NC	5 — gr/GR



5 ... 400mm



- Detection of shining objects
- Adjustable background suppression
- A²LS - active suppression of extraneous light
- Push-pull switching outputs
- M12 turning connector or cable connection



Accessories:

(available separately • see page 74)

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

We reserve the right to make changes • 8_d05e.fm

Specifications

Optical data

Typ. scanning range limit (white 90%) ¹⁾	5 ... 400mm
Scanning range ²⁾	see tables
Mechanical adjustment range	50 ... 400mm
Light source	LED (modulated light)
Wavelength	880nm (infrared)

Timing

Switching frequency	1000Hz
Response time	0.5ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC
Residual ripple	≤ 15% of U_B
Bias current	≤ 35mA
Switching output/function	.../66 2 push-pull switching outputs ³⁾
	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 multturn potentiometer

Indicators

LED yellow	object detected
------------	-----------------

Mechanical data

Housing	metal
Optics cover	glass
Weight (plug/cable)	70g/140g
Connection type	M12 connector, 5-pin

Environmental data

Ambient temp. (operation/storage)	-40 °C ... +60 °C / -40 °C ... +70 °C
Protective circuit ⁴⁾	2, 3
VDE safety class ⁵⁾	II, all-insulated
Protection class ⁶⁾	IP 67, IP 69K ⁷⁾
LED class	1 (acc. to EN 60825-1)
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
- 6) In stop position of the turning connector (turning connector locked)
- 7) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

Tables

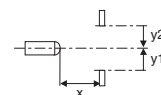
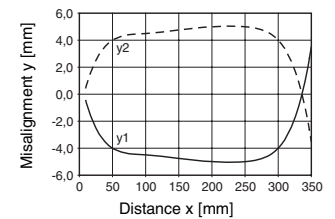
1	7	350	400
2	10	330	370
3	12	300	340

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

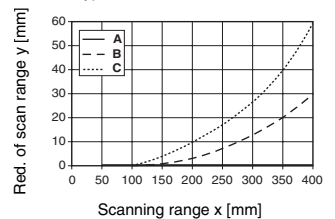
<input type="checkbox"/>	Scanning range [mm]
<input type="checkbox"/>	Typ. scanning range limit [mm]

Diagrams

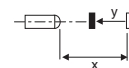
Typ. response behaviour (white 90%)



Typ. black/white behaviour



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



Order guide

	Designation	Part No.
With M12 connector	HRT 8/66.6-350-S12	500 39650

Remarks