

Specifications

Optical data

Typ. scanning range limit (white 90%) ¹⁾	5 ... 400mm
Scanning range ²⁾	see tables
Mechanical adjustment range	50 ... 400mm
Light beam characteristic	focussed
Beam spread	≥ 0.5mrad
Light source	laser, class 2
Wavelength	670 nm (visible red light)
Laser class	2 acc. to EN 60825-1 (2003/10)
Laser warning notice	see remarks

Timing

Switching frequency	2000 Hz
Response time	0.25ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC
Residual ripple	≤ 15% of U_B
Bias current	≤ 35mA
Signal voltage high/low	≥ ($U_B - 2V$) ≤ 2V
Switching output/function	.../24 PNP and NPN transistor output, light switching .../66 2 push-pull switching outputs ³⁾
	pin 2: PNP dark switching, NPN light switching pin 4: PNP light switching, NPN dark switching
	max. 100mA
	mechanical via multturn potentiometer

Output current
Scanning range adjustment

Indicators

LED yellow object detected

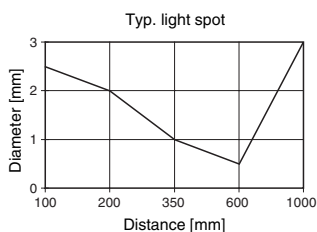
Mechanical data

Housing metal
Optics cover glass
Weight (plug/cable) 70g/140g
Connection type M12 connector, 5-pin or cable: 2000mm, 5x0.25mm²

Environmental data

Ambient temp. (operation/storage) -10 °C ... +40 °C / -40 °C ... +70 °C
Protective circuit⁴⁾ 2, 3
VDE safety class⁵⁾ II, all-insulated
Protection class⁶⁾ IP 67
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)



Order guide

	Designation	Part No.
with M12 connector	HRTL 8/24-350-S12	500 36370
with 2m cable	HRTL 8/24-350	500 36371
with M12 connector	HRTL 8/66-350-S12	501 02705

Tables

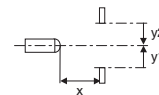
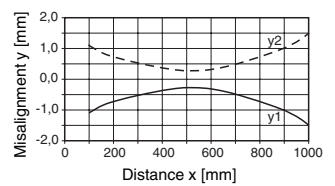
1	7	350	400
2	10	330	370
3	12	300	340

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

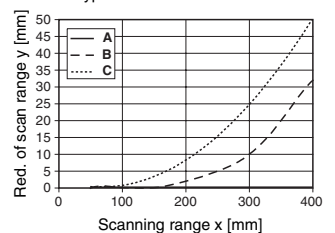
Scanning range [mm]
Typ. scanning range limit [mm]

Diagrams

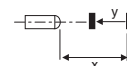
Typ. response behaviour (white 90%)



Typ. black/white behaviour



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



Remarks

- Install sensor inclined at angle of approx. 10° if used to detect objects with shiny surfaces.

LASER LIGHT DO NOT STARE INTO BEAM	
Maximum Output:	2.6mW
Pulse duration:	8µs
Wavelength:	670nm
CLASS 2 LASER PRODUCT EN60825-1:2003-10	