

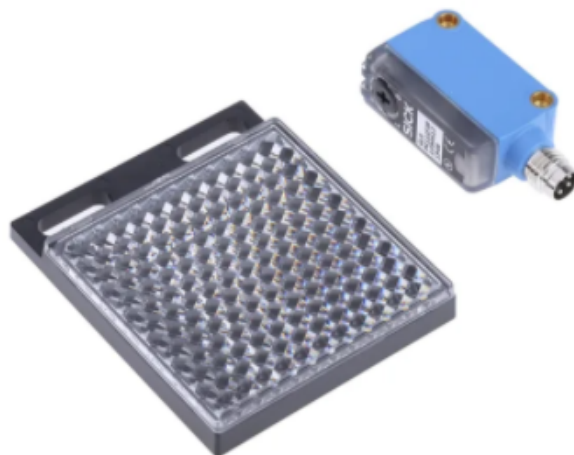


ENGLISH

Datasheet

RS PRO Retroreflective Photoelectric Sensor with Block Sensor

Stock No: 729-5195



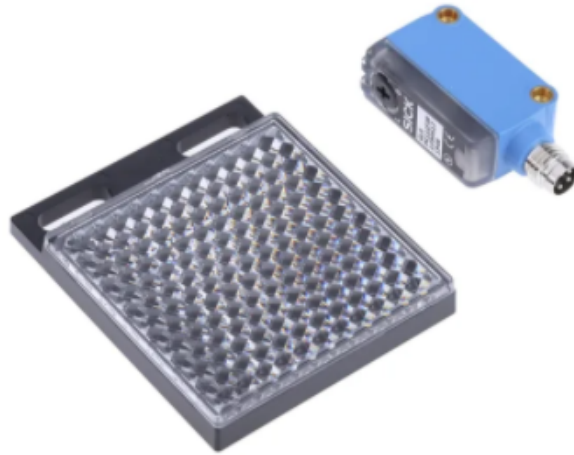


Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Dual lens
Sensing range max.	$\leq 6 \text{ m}^{1)}$
Sensing range	$\leq 5 \text{ m}^{1)}$
Polarisation filters	Yes
Key LED figures	
Wave length	650 nm
Adjustment	None

¹⁾ Reflector PL80A.

Safety-related parameters

MTTF_D	2,526 years
DC_{avg}	0 %

Electrical data

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	$\pm 10 \%^{2)}$

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Without load.

⁴⁾ At U_v > 24 V, I_A max. = 50 mA.

⁵⁾ Signal transit time with resistive load.

⁶⁾ With light/dark ratio 1:1.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ B = inputs and output reverse-polarity protected.

⁹⁾ D = outputs overcurrent and short-circuit protected.

Power consumption	30 mA ³⁾
Protection class	III
Digital output	
Type	PNP
Signal voltage PNP HIGH/LOW	V _S - (≤ 3 V) / approx. 0 V
Output current I _{max.}	≤ 100 mA ⁴⁾
Response time	< 625 μs ⁵⁾
Switching frequency	1,000 Hz ⁶⁾
Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark selector
Circuit protection	A ⁷⁾ B ⁸⁾ D ⁹⁾

1) Limit values when operated in short-circuit protected network: max. 8 A.

2) May not exceed or fall below U_v tolerances.

3) Without load.

4) At U_v > 24 V, I_A max. = 50 mA.

5) Signal transit time with resistive load.

6) With light/dark ratio 1:1.

7) A = V_S connections reverse-polarity protected.

8) B = inputs and output reverse-polarity protected.

9) D = outputs overcurrent and short-circuit protected.

Mechanical data

Housing	Rectangular
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Connection	Male connector M8, 4-pin
Material	
Housing	Plastic, ABS/PC
Front screen	Plastic, PMMA
Weight	20 g
Items supplied	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250

Ambient data

Enclosure rating	IP67
Ambient operating temperature	-25 °C ... +55 °C ¹⁾
Ambient temperature, storage	-40 °C ... +70 °C
UL File No.	NRKH.E348498 & NRKH7.E348498

1) Temperature stability following adjustment +/-10 °C.

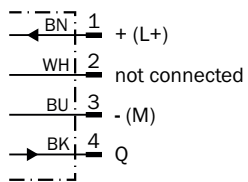
Classifications

ECI@ss 5.0	27270902
ECI@ss 5.1.4	27270902
ECI@ss 6.0	27270902
ECI@ss 6.2	27270902

ECl@ss 7.0	27270902
ECl@ss 8.0	27270902
ECl@ss 8.1	27270902
ECl@ss 9.0	27270902
ECl@ss 10.0	27270902
ECl@ss 11.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
UNSPSC 16.0901	39121528

Connection diagram

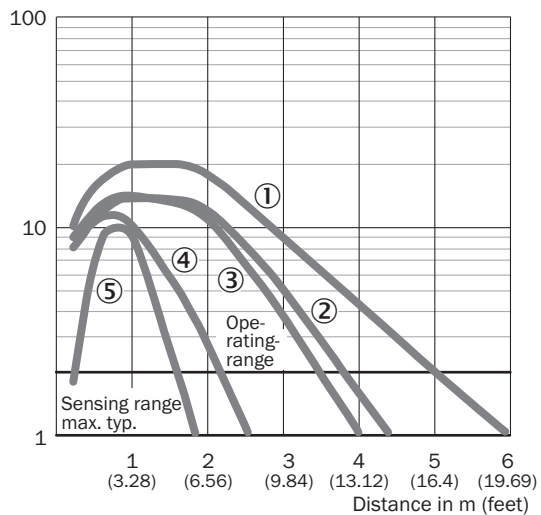
Cd-066



Characteristic curve

GL6

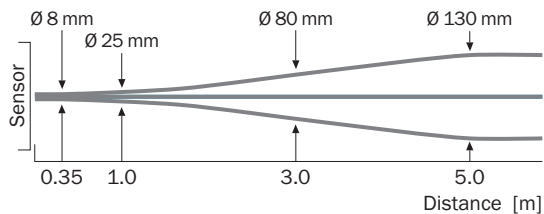
Operating reserve



- ① Reflector PL80A
- ② Reflector PL40A
- ③ Reflector P250
- ④ Reflector PL20A
- ⑤ Reflective tape REF-IRF-56

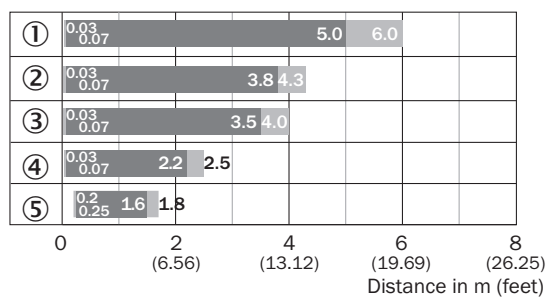
Light spot size

GL6, GL6G



Sensing range diagram

GL6, GL6G

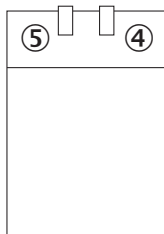


■ Sensing range ■ Sensing range max.

- ① Reflector PL80A
- ② Reflector PL40A
- ③ Reflector P250
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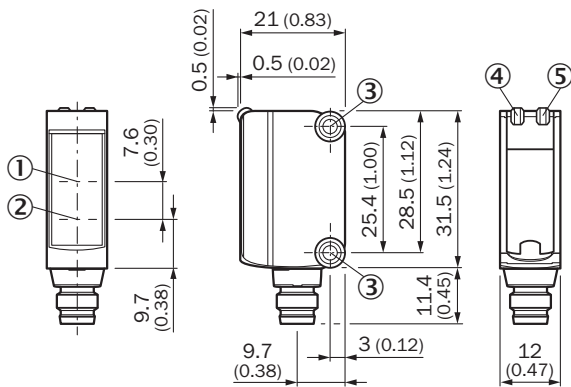
Adjustments

No adjustment possibility



- ④ LED indicator green: Supply voltage active
- ⑤ LED indicator yellow: Status of received light beam



Dimensional drawing (Dimensions in mm (inch))




- ① Optical axis, receiver
- ② Optical axis, sender
- ③ Mounting holes M3
- ④ LED indicator green: Supply voltage active
- ⑤ LED indicator yellow: Status of received light beam

Brief description



Mounting brackets and plates

	Stainless steel (1.4301)
	Universal mounting bracket for reflectors, steel, zinc coated

Reflectors

	Rectangular, screw connection, 51 mm x 61 mm, PMMA/ABS, Screw-on, 2 hole mounting
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Plug connectors and cables

	Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m
	Head A: male connector, M8, 4-pin, straight Head B: - Cable: unshielded