

WTE280-2H4331

W280-2

PHOTOELECTRIC SENSORS



BOX CONTRACTOR OF THE PARTY OF

Ordering information

Туре	part no.
WTE280-2H4331	6044730

Included in delivery: BEF-W280 (1)

Other models and accessories → www.sick.com/W280-2

Illustration may differ



Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Energetic
Dimensions (W x H x D)	23.5 mm x 74.5 mm x 63 mm
Housing design (light emission)	Rectangular
Sensing range max.	10 mm 2,000 mm ¹⁾
Sensing range	10 mm 1,500 mm
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 45 mm (1,500 mm)
Adjustment	Potentiometer adjustable via sensing range adjustment

 $^{^{1)}}$ Object with 90% remission (based on standard white, DIN 5033).

Mechanics/electronics

	24 V DC 240 V DC ¹⁾ 24 V AC 240 V AC ¹⁾
Power consumption	≤ 5 VA

^{1) +- 10%}

 $^{^{2)}}$ Average service life: 100,000 h at $\rm T_U$ = +25 °C.

 $^{^{2)}\ \}mbox{Provide}$ suitable spark suppression for inductive or capacitive loads.

 $^{^{3)}}$ With light/dark ratio 1:1.

 $^{^{4)}}$ A = V_S connections reverse-polarity protected.

 $^{^{5)}}$ C = interference suppression.

⁶⁾ Rated voltage: 250 V AC/DC.

 $^{^{7)}}$ In the case of a DC supply (relating to EN 61000-6-3) the length of cable between the supply source and the sensor must be < 30 m.

⁸⁾ The AC/DC devices (-2Rxxxx only) comply with the Radio Safety Requirements for the industrial sector (Radio Safety Class A). They may cause radio interference if used in a residential area.

Switching output	Relay, electrically isolated ²⁾
Output function	Change-over contacts
Switching mode	Light switching ²⁾
Switching current (switching voltage)	3 A (240 V AC) 3 A (30 V DC)
Response time	≤ 15 ms
Switching frequency	33 Hz ³⁾
Connection type	Cable gland
Circuit protection	A ⁴⁾ C ⁵⁾
Protection class	II ⁶⁾
Overvoltage category	2
Weight	150 g
Interference emission	EN 61000-6-3 (only -2Hxxxx) ⁷⁾
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP66 IP67
Items supplied	Mounting bracket BEF-W280
Usage category	AC-15, DC-13 According to EN 60947-1
Electromagnetic compatibility (EMC)	EN 60947-5-2 EN 61000-6-3 (only -2Hxxxx) ^{8) 8)}
Ambient operating temperature	-25 °C +55 °C
Ambient temperature, storage	-40 °C +70 °C

¹⁾ +- 10%

Safety-related parameters

MTTF _D	1,548 years
DC _{avg}	0 %

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

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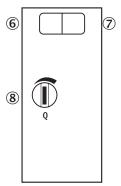
Photobiological safety (DIN EN 62471) certificate	✓
Classifications	
ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270904
ECLASS 11.0	27270904
ECLASS 12.0	27270903
ETIM 5.0	EC001821
ETIM 6.0	EC001821

EC002719

EC002719

39121528

Adjustments WTE280-2, AC/DC



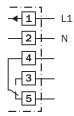
ETIM 7.0

ETIM 8.0

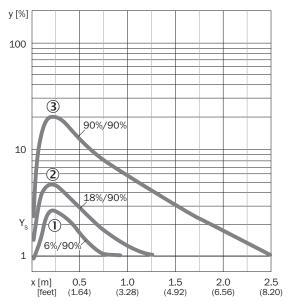
UNSPSC 16.0901

- 6 LED indicator green: Stability indicator
- 7 LED indicator yellow: Status of received light beam
- ® Sensing range adjustment: potentiometer

Connection diagram Cd-239

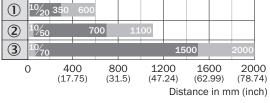


Characteristic curve WTE280-2



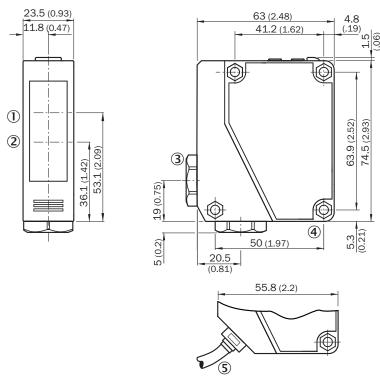
- ① Sensing range on black, 6% remission factor
- ② Sensing range on gray, 18% remission factor
- 3 Sensing range on white, 90% remission factor

Sensing range diagram WTE280-2



- Sensing range
- Sensing range max.
- ① Sensing range on black, 6% remission factor
- ② Sensing range on gray, 18% remission factor
- 3 Sensing range on white, 90% remission factor

Dimensional drawing WTE280-2, WL280-2, AC/DC



Dimensions in mm (inch)

- ① Center of optical axis, receiver
- 2 Center of optical axis, sender
- 3 Cable entry gland 3/8" for cable diameter 6 to 8 mm
- 4 Mounting hole, Ø 4.3 mm
- ⑤ Cable, 2 m, 5-wire, Ø 6.3 mm

Recommended accessories

Other models and accessories → www.sick.com/W280-2

Brief description	Туре	part no.
Mounting systems		
 Description: Mounting bracket Material: Stainless steel Details: Stainless steel V2A (1.4301) Items supplied: 2 screws, 2 nuts, 2 circlips, 2 washers for mounting the sensor Suitable for: W280-2, G20 	BEF-W280	5313885

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