WT34-V220

W34

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

WT34-V220 | W34
COMPACT PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	Part no.
WT34-V220	1019228

Other models and accessories ➜ www.sick.com/W34

Detailed technical data

Features

Functional principle	Photoelectric proximity sensor
Functional principle detail	Background suppression
Dimensions (W x H x D)	27 mm x 92 mm x 70 mm
Housing design (light emission)	Rectangular
Sensing range max.	100 mm … 2,500 mm [1]
Sensing range	100 mm … 2,500 mm
Type of light	Infrared light
Light source	LED [2]
Light spot size (distance)	Ø 80 mm (2,500 mm)
Adjustment	Potentiometer
Alarm output	✓

[1] Object with 90% remission (based on standard white, DIN 5033).
[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC … 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	50 mA
Switching output	NPN, PNP

[1] Limit values.
[2] May not exceed or fall below U_v tolerances.
[3] Signal transit time with resistive load.
[4] With light/dark ratio 1:1.
[5] A = V_S connections reverse-polarity protected.
[6] C = interference suppression.
[7] D = outputs overcurrent and short-circuit protected.
[8] Reference voltage: 50 V DC.

Switching mode	Light switching, Dark switching
Switching mode selector	Selectable via PNP/NPN selector
Output current I$_{max.}$	≤ 100 mA
Response time	≤ 500 µs [3]
Switching frequency	1,000 Hz [4]
Time functions	On delayoff delayadjustable
Delay time	Adjustable via time delay selector switch, 0.5 s ... 10 s
Connection type	Terminal connection with M16 gland
Circuit protection	A [5] C [6] D [7]
Protection class	II [8]
Weight	140 g
Housing material	Plastic, ABS
Enclosure rating	IP67
Test input sender off	TE to 0 V
Ambient operating temperature	–40 °C ... +60 °C
Ambient temperature, storage	–40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

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[4] With light/dark ratio 1:1.

[5] A = V$_S$ connections reverse-polarity protected.

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[8] Reference voltage: 50 V DC.
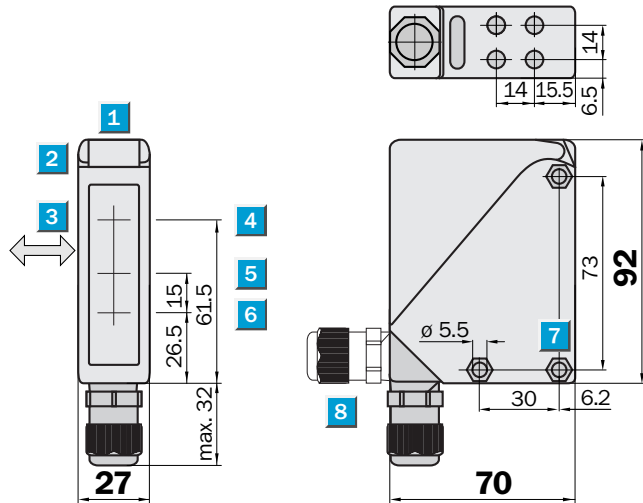
Safety-related parameters

MTTF$_D$	564 years
DC$_{avg}$	0 %
T$_M$ (mission time)	20 years

Classifications

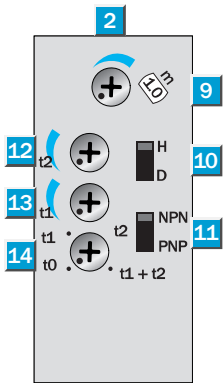|	
ECLASS 5.0	27270904
ECLASS 5.1.4	27270904
ECLASS 6.0	27270904
ECLASS 6.2	27270904
ECLASS 7.0	27270904
ECLASS 8.0	27270904
ECLASS 8.1	27270904
ECLASS 9.0	27270904
ECLASS 10.0	27270904
ECLASS 11.0	27270904

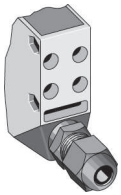| ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

① Alignment sight
② LED signal strength indicator
③ Standard direction of the material being detected
④ Center of optical axis, sender
⑤ Center of optical axis, receiver (close range)
⑥ Center of optical axis, receiver (far range)
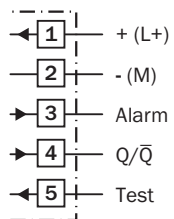⑦ Mounting hole ø 5.5 mm, for M5 hexagon nuts on both sides

Adjustments

② LED signal strength indicator
⑨ Adjustment of sensing range
⑩ Light/dark selector
⑪ NPN/PNP changeover switch
⑫ Time control t_2= OFF delay
⑬ Time control t_1= ON delay
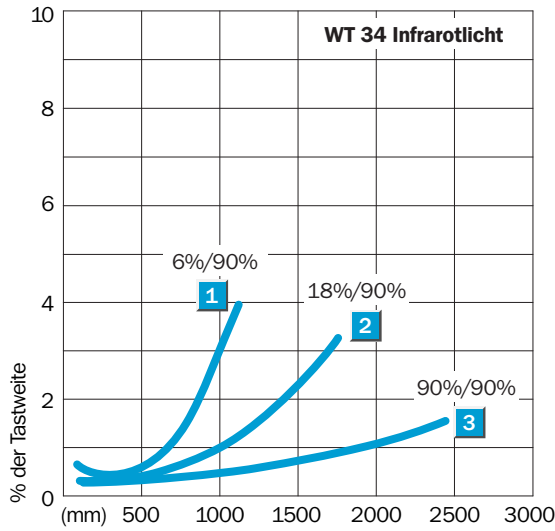⑭ Time delay selector switch

Connection type

Connection diagram

Cd-152

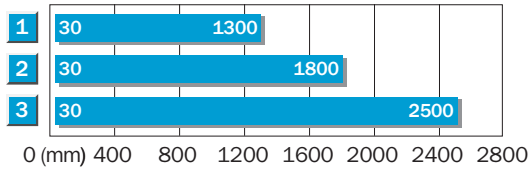|	
1	+ (L+)
2	- (M)
3	Alarm
4	Q/$\overline{Q}$
5	Test

Characteristic curve

Sensing range diagram

1	Scanning distance on black [9]
2	Scanning distance on grey [9]
3	Scanning distance on white [9]

Recommended accessories

Other models and accessories ➜ www.sick.com/W34

Brief description	Type	Part no.
Mounting brackets and plates		
Mounting bracket, Stainless steel (1.4301), mounting hardware included	BEF-WN-W24	2015248

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