



**Photoelectric sensors**  
**Through-beam photoelectric sensor, Product**  
**group W140-2**

WS/WE140-2P330

**Model Name** > [WS/WE140-2P330](#)  
**Part No.** > [6024790](#)



- Polarisation filter (accessories), consequently no mutual interference when mounted in pairs
- Slotted masks (accessories) for detecting small parts or positioning jobs
- Sensitivity adjustable
- Red light as alignment aid
- LED indicator: operating reserve



#### Product features

|                            |                                 |
|----------------------------|---------------------------------|
| Sensing range min ... max: | 0 m ... 13 m, 0 m ... 16 m      |
| Light source:              | LED                             |
| Type of light:             | Red light                       |
| Light spot diameter:       | Approx. 650 mm at 12 m distance |
| Laser:                     | Red light                       |
| Sensing range max.:        | 0 m ... 13 m, 0 m ... 16 m      |
| Sensitivity adjustment:    | Potentiometer                   |
| Wave length:               | 680 nm                          |

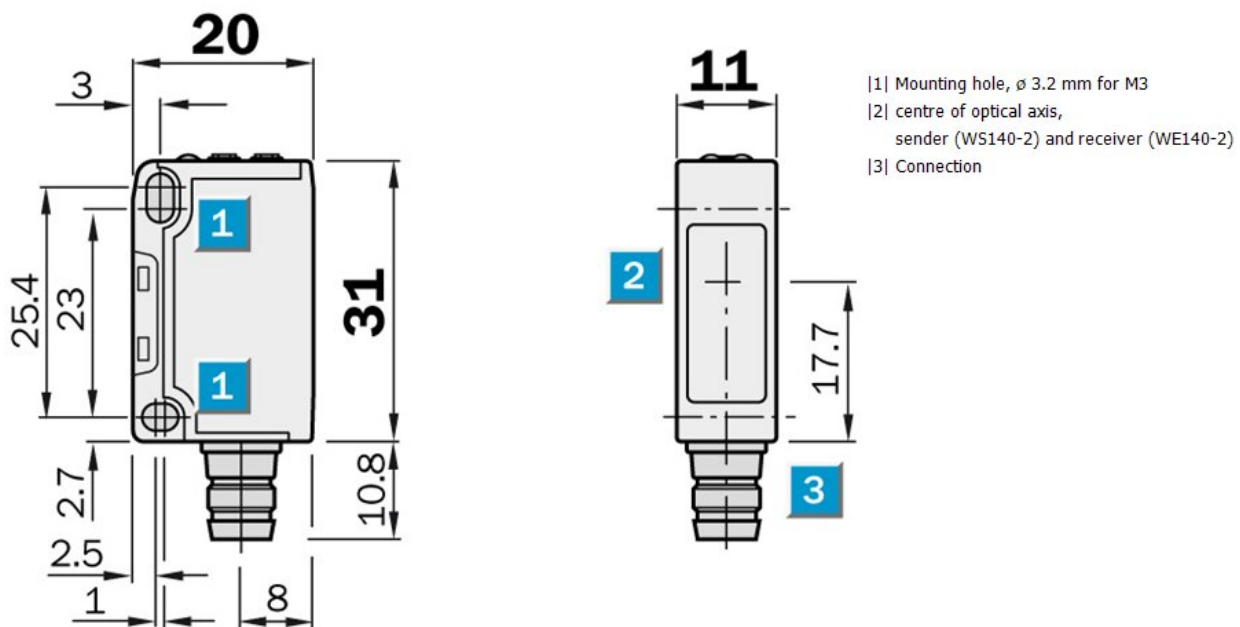
#### Technical data

|                                             |                                                                                                                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design:                                     | Rectangular                                                                                                                                                                                               |
| Dimensions (W x H x D):                     | 11 mm x 31 mm x 20 mm                                                                                                                                                                                     |
| Supply voltage min ... max:                 | DC 10 ... 30 V <sup>1)</sup>                                                                                                                                                                              |
| Ripple:                                     | ± 10 %                                                                                                                                                                                                    |
| Switching output:                           | PNP: open collector: Q                                                                                                                                                                                    |
| Switching mode:                             | Light/dark switching via rotary switch                                                                                                                                                                    |
| Output current max.:                        | 100 mA                                                                                                                                                                                                    |
| Response time:                              | ≤ 0.5 ms                                                                                                                                                                                                  |
| Switching frequency:                        | 1,000 Hz                                                                                                                                                                                                  |
| Connection type:                            | Connector, M8, 3-pin                                                                                                                                                                                      |
| Circuit protection:                         | V <sub>S</sub> connections reverse-polarity protected/In-/outputs short-circuit protected/only WE140-2/Interference suppression/only WE140-2/Outputs overcurrent and short-circuit protected/only WE140-2 |
| Enclosure rating:                           | IP 67                                                                                                                                                                                                     |
| Ambient operation temperature, min ... max: | -25 °C ... +55 °C                                                                                                                                                                                         |
| Ambient storage temperature, min ... max:   | -40 °C ... +70 °C                                                                                                                                                                                         |
| Weight:                                     | Ca. 9 g                                                                                                                                                                                                   |
| Housing material:                           | PBT                                                                                                                                                                                                       |
| Signal voltage PNP HIGH/LOW:                | V <sub>S</sub> - 1.8 V/approx. 0 V                                                                                                                                                                        |

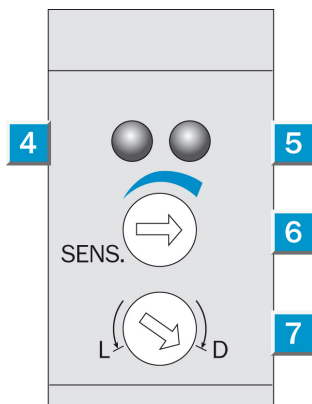
|                              |                               |
|------------------------------|-------------------------------|
| Angle of dispersion:         | Ca. 7.6 °                     |
| Power consumption, sender:   | 15                            |
| Power consumption, receiver: | ≤ 20 mA                       |
| Series:                      | W140-2                        |
| Optics material:             | PC                            |
| Front screen heating:        | -                             |
| Angle of reception:          | Ca. 15 °                      |
| Polarisation filter:         | -                             |
| UL File No.:                 | NRNT2.E128350 & NRNT8.E128350 |

1) Limit values, reverse-polarity protected operation in short-circuit protected network max. 8 A

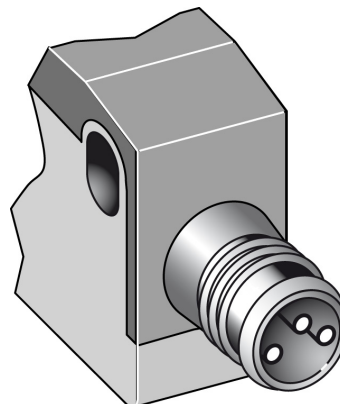
## Masszeichnung



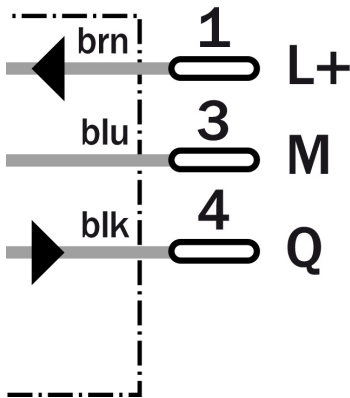
## Einstell-Möglichkeiten



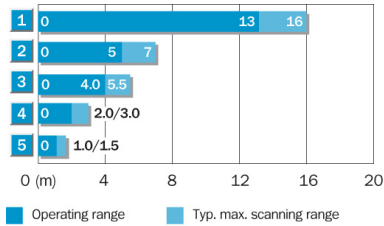
## Anschlussart



Anschluss-Schema



Schaltabstand-Diagramm



| Scanning range reduction when slotted masks are used |                                    |
|------------------------------------------------------|------------------------------------|
| 1                                                    | Without masks/polarizing filter    |
| 2                                                    | With polarizing filter tip adapter |
| 3                                                    | With slotted mask, width 2.0 mm    |
| 4                                                    | With slotted mask, width 1.0 mm    |
| 5                                                    | With slotted mask, width 0.5 mm    |

**Australia**

Phone +61 3 9457 0600  
1800 33 48 02 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail marketing@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Česká republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail info@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6881000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 5309 2112  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederland**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail sick@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail sales.gsg@sick.com

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886 2 2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 88 65 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 (800) 325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)