



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

WS/WE140-2N430

**Model Name** > [WS/WE140-2N430](#)  
**Part No.** > [6024787](#)



- 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                          |

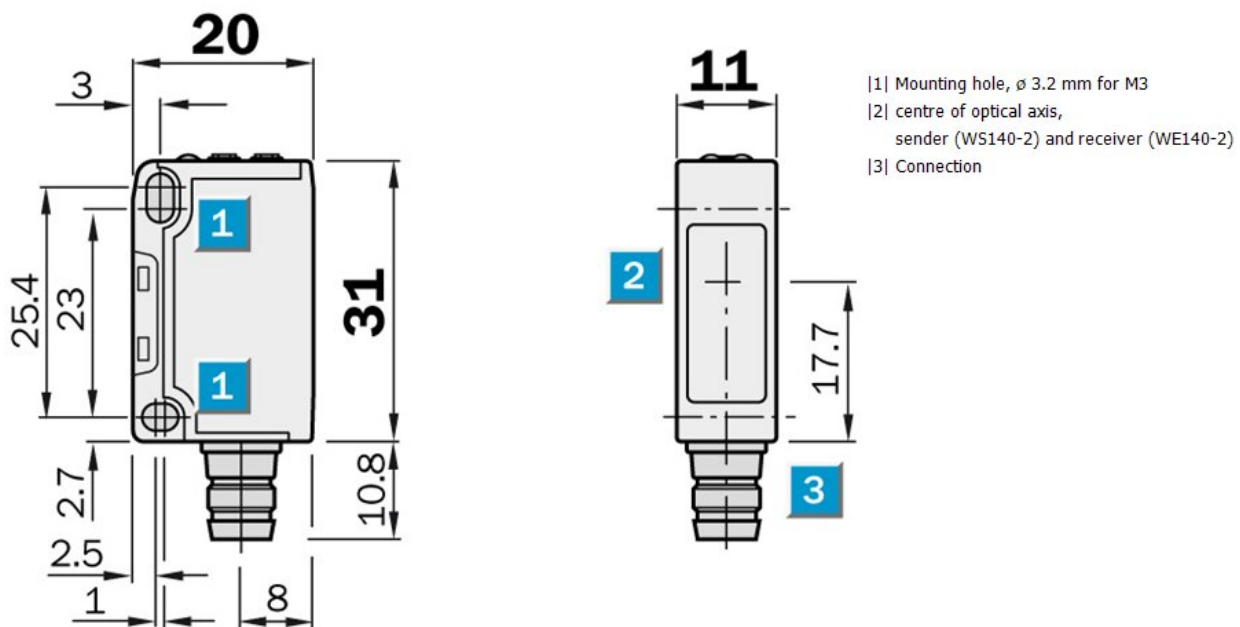
#### Technical data

|                                             |                                                                                                                                                                                                  |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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:                           | NPN: open collector: Q                                                                                                                                                                           |
| Switching mode:                             | Light/dark switching via rotary switch                                                                                                                                                           |
| Signal voltage NPN HIGH/LOW:                | Approx. $V_S / < 1.8 \text{ V}$                                                                                                                                                                  |
| Output current max.:                        | 100 mA                                                                                                                                                                                           |
| Response time:                              | ≤ 0.5 ms                                                                                                                                                                                         |
| Switching frequency:                        | 1,000 Hz                                                                                                                                                                                         |
| Connection type:                            | Connector, M8, 4-pin                                                                                                                                                                             |
| Circuit protection:                         | $V_S$ 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                                                                                                                                                                                              |

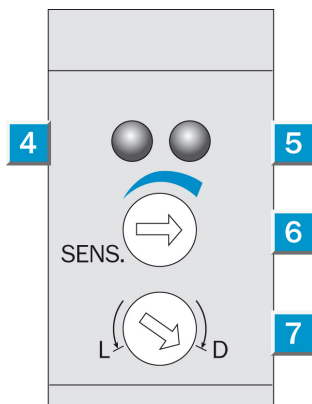
|                              |                               |
|------------------------------|-------------------------------|
| Angle of dispersion:         | Ca. 7.6 °                     |
| Power consumption, sender:   | 15                            |
| Power consumption, receiver: | ≤ 20 mA                       |
| 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

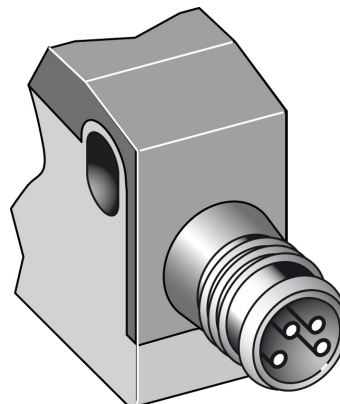
## Masszeichnung



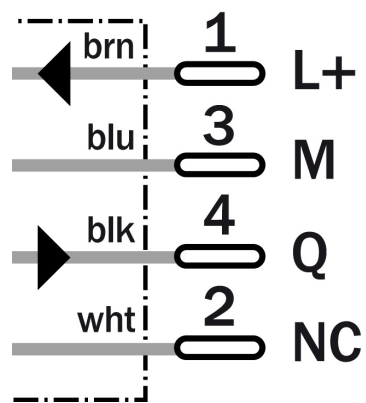
## Einstell-Möglichkeiten



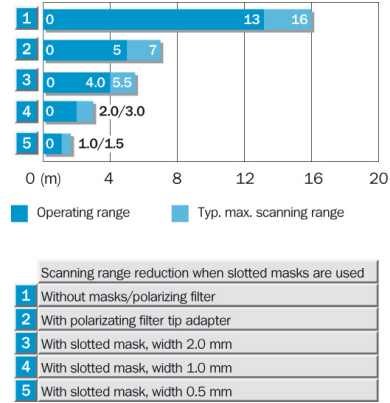
## Anschlussart



Anschluss-Schema



Schaltabstand-Diagramm



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