



Photoelectric sensors
Photoelectric retro-reflective sensor, Product
group W140-2

WL140-2N430

Model Name > [WL140-2N430](#)
Part No. > [6024795](#)



- Polarisation filter for detection of objects with shiny surfaces
- Also suitable for "Diamond Grade" reflective tape
- Red light as alignment aid
- LED indicator: operating reserve



Product features

Sensing range min ... max::	0.01 m ... 5 m, 0.01 m ... 6.5 m
Light source::	LED
Type of light:	Red light
Light spot diameter:	Approx. 250 mm at 2.5 m distance
Laser:	Red light
Sensing range max.:	0.01 m ... 5 m, 0.01 m ... 6.5 m
Relating to:	Reflector PL80A
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 ¹⁾
Ripple:	± 10 %
Power consumption:	≤ 30 mA
Output type:	NPN: open collector: Q
Switching mode:	Light/dark switching via rotary switch
Signal voltage NPN HIGH/LOW:	Approx. $V_S / < 1.8 V$
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/Interference suppression/Outputs overcurrent and short-circuit protected
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. 5.8 °

Series:

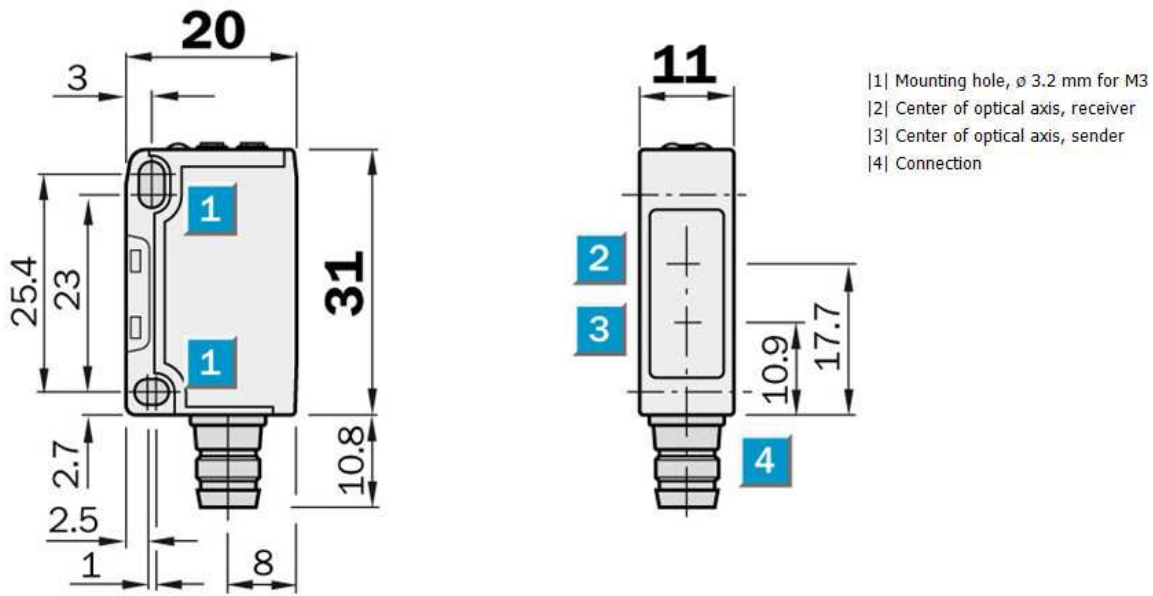
W140-2

Optics material:

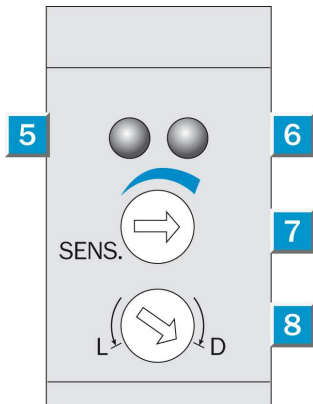
PMMA

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

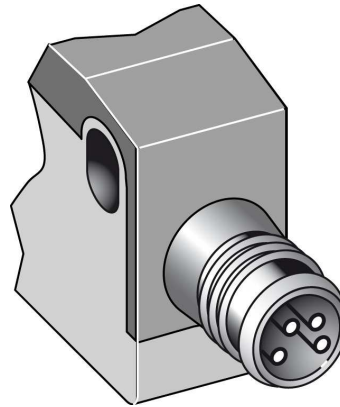
Dimensional drawing



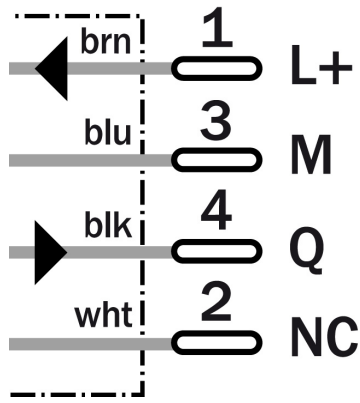
Adjustment possible



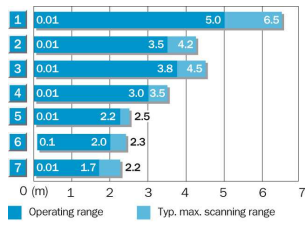
Connection type



Connection diagram

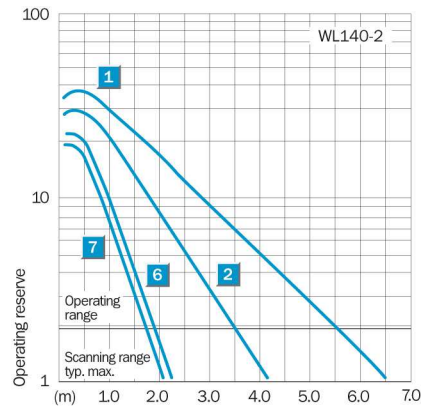


Sensing range diagram



Reflector type	Operating range
1 PL 80 A	0.01 ... 5.0 m
2 P 250	0.01 ... 3.5 m
3 PL 50 A/PL 40 A	0.01 ... 3.8 m
4 PL 30 A/PL 31 A	0.01 ... 3.0 m
5 PL 20 A	0.01 ... 2.2 m
6 Reflective tape Diamond Grade	0.1 ... 2.0 m (100 x 100 mm ²)
7 P 45	0.01 ... 1.7 m

Scanning distance displacement



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