



Photoelectric sensors
W100, Photoelectric retro-reflective sensor,
Standard optics

WL100-N3429



Model Name > **WL100-N3429**
Part No. > **6027663**



Illustration may differ

At a glance

- Standard miniature housing with M3 threaded mounting holes
- Optics with standard red LED or bright light LED
- Polarizing filter
- Light/dark switching and sensitivity adjustment via rotary switch possible
- All necessary accessories (BEF-W100-A and P250) are included with delivery (depending on type)

Your benefits

- Highly visible light spot simplifies alignment
- Less contamination due to high optical operating reserve
- Polarization filter allows reliable detection of objects with shiny surfaces and prevents false switching
- M3 threaded mounting holes provide easy installation
- Variants available for reliably detecting clear materials, min. attenuation 20 %
- All necessary accessories (bracket and reflector) are included with delivery, reducing installation and procurement costs (depending on type)

Product will be phased out and can be ordered until 31.12.2015.



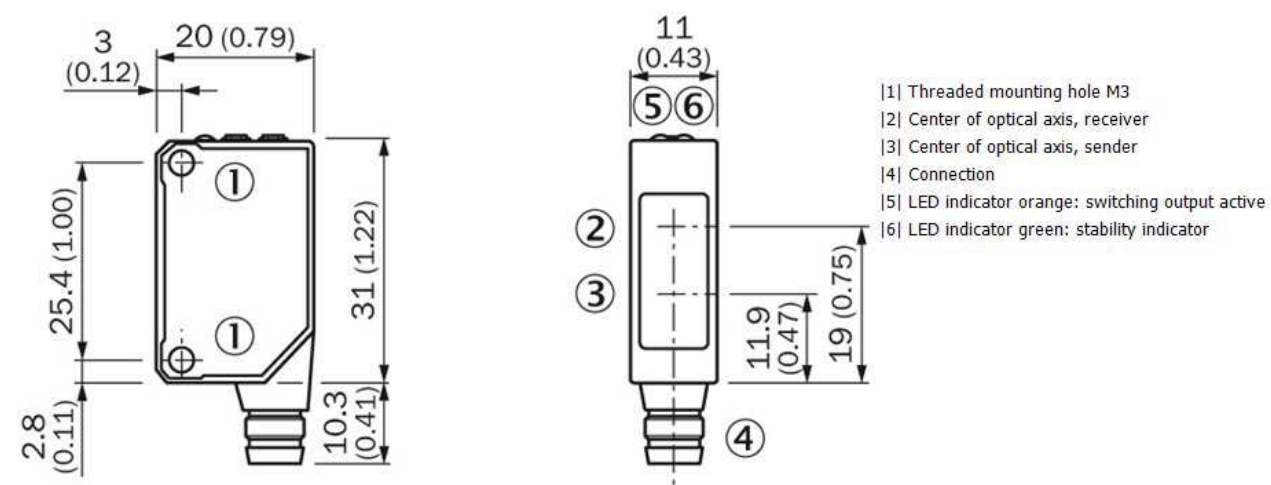
Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	11 mm x

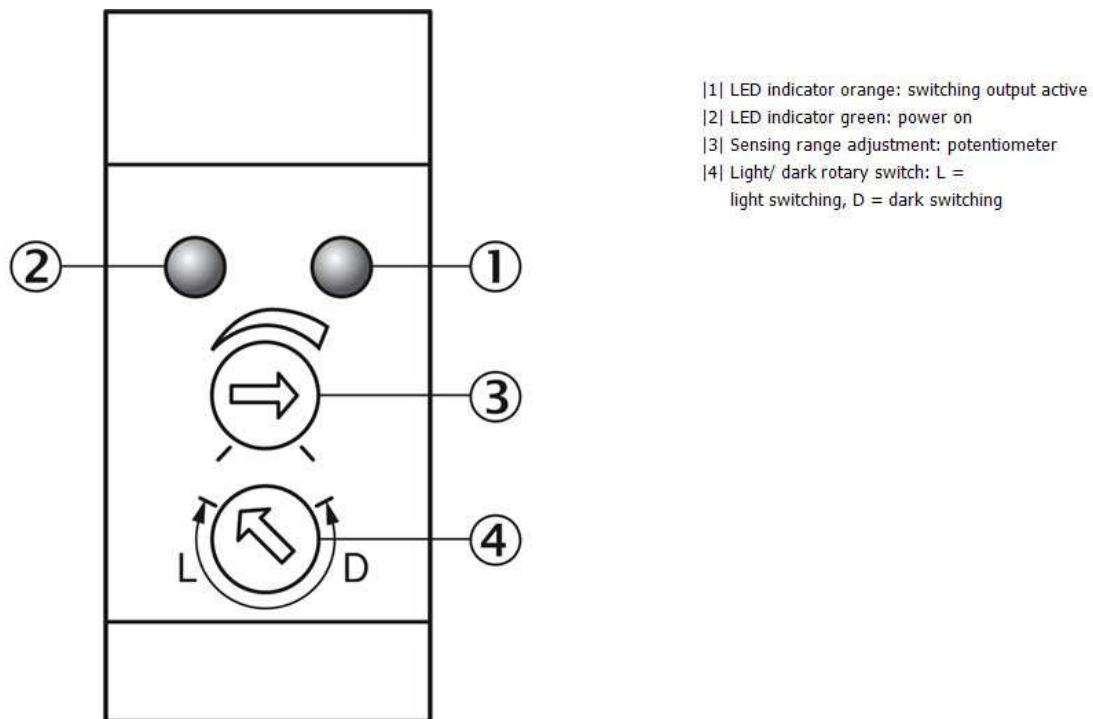
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Residual ripple:	$\pm 10\%$ ²⁾
Power consumption:	$\leq 30\text{ mA}$ ³⁾
Output type:	NPN, open collector
Switching mode:	Light/dark switching
Switching mode selector:	Manually selectable
Output current I _{max} :	100
Response time:	$\leq 0.5\text{ ms}$ ⁴⁾
Switching frequency:	1,000 ⁵⁾
Attenuation along light beam:	$> 20\%$
Electrical connection:	Connector M8, 3-pin
Circuit protection:::	A, B, D ⁶⁾ ⁷⁾ ⁸⁾
Weight:	9 g
Polarisation filter:	-
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 65
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250
Special feature:	Detection of transparent objects
Ambient temperature operation:	-25 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +70 °C
Signal voltage NPN HIGH/LOW:	Approx. V _S / < 1.8 V
Housing material:	ABS/PC/POM, Plastic

¹⁾ Limit values, operation in short-circuit protected network max. 8 A
²⁾ May not exceed or fall short of V_S tolerances
³⁾ Without load
⁴⁾ Signal transit time with resistive load
⁵⁾ With light/dark ratio 1:1
⁶⁾ A = V_S connections reverse-polarity protected
⁷⁾ B = inputs and output reverse-polarity protected
⁸⁾ D = outputs overcurrent and short-circuit protected

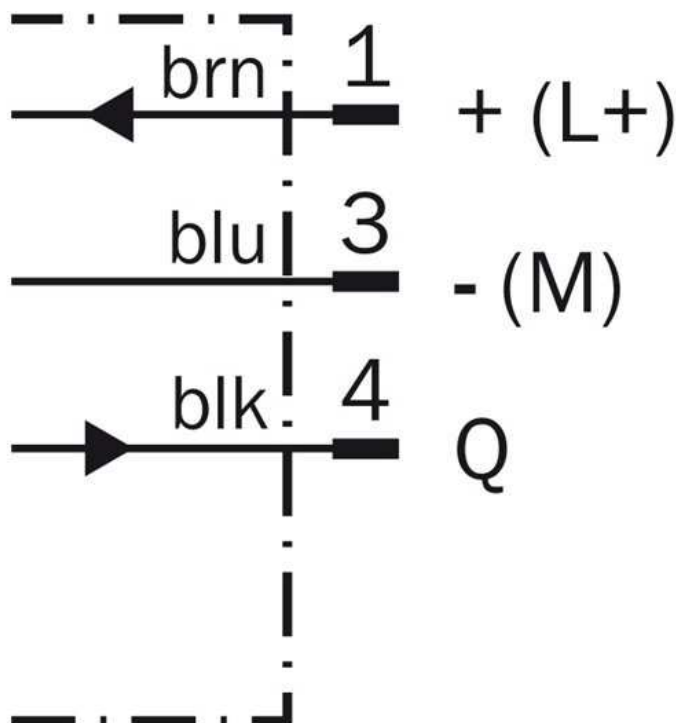
Dimensional drawing



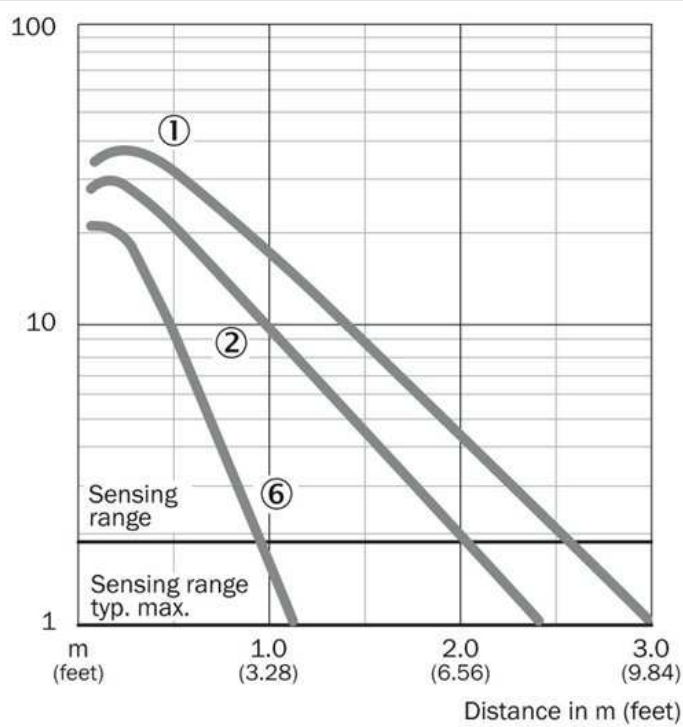
Adjustments possible



Connection diagram

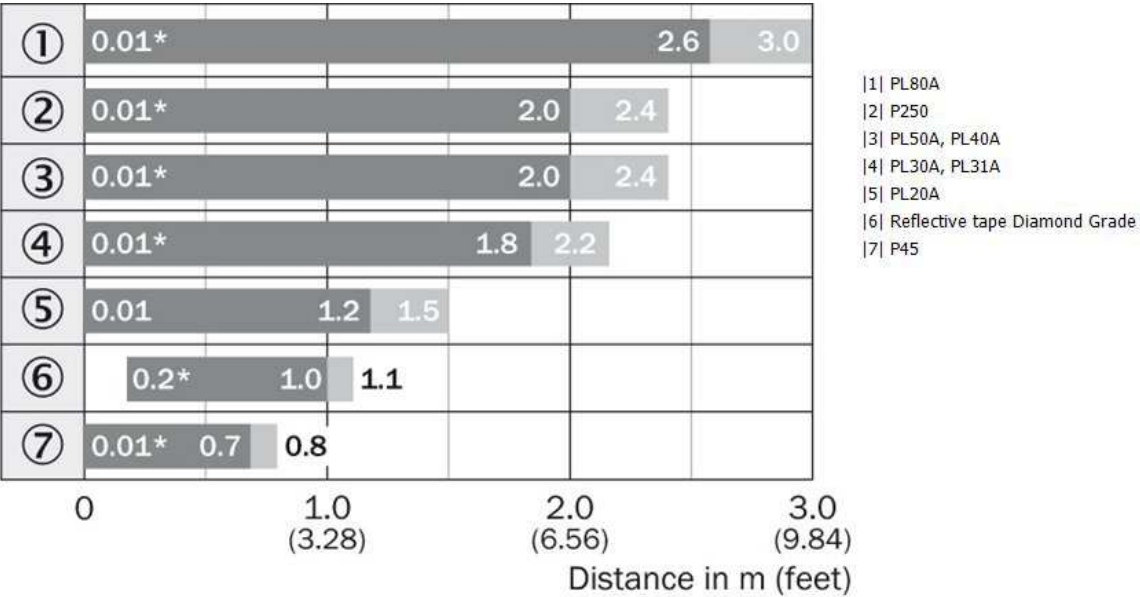


Characteristic curve

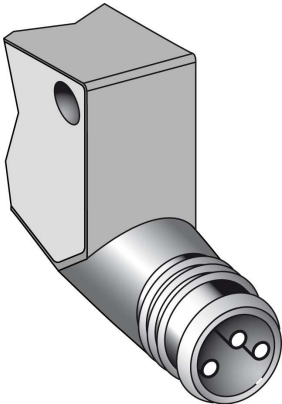


- |1| PL80A
- |2| P250
- |6| Reflective tape Diamond Grade

Sensing range diagram



Connection type



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