



Photoelectric sensors  
W23-2, Photoelectric retro-reflective sensor,  
Standard optics

WL23-2P2432S02



**Model Name** > [WL23-2P2432S02](#)  
**Part No.** > [1043566](#)



*Illustration may differ*

**At a glance**

- Two variants available: without sensitivity adjustment or with teach button
- Polarizing filter ensures reliable detection, even with shiny targets
- Model with PinPoint for intense, consistent red light spot
- 360° visibility of indicating LEDs

**Your benefits**

- Adjustability removed to prevent operator tampering and to reduce downtime
- Model with teach-in pushbutton enables quick setup
- Durable housing with reinforced mounting holes withstands harsh conditions
- 360° LEDs provide device status indication from multiple angles
- Polarizing filter ensures reliable detection, even with shiny targets
- Less downtime due to ASIC chip technology by SICK
- High level of mechanical and electronic reliability in industrial environments



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	24.6 mm x 80.6 mm x 54 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.1 m ... 15 m <sup>1)</sup>
Sensing range:	0.1 m ... 11 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>3)</sup>
Teach-in:	Single teach-in button
Angle of dispersion:	0.6 °
Adjustment:	Teach-in
Light spot size (distance):	Ø 160 mm (16 m)

<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

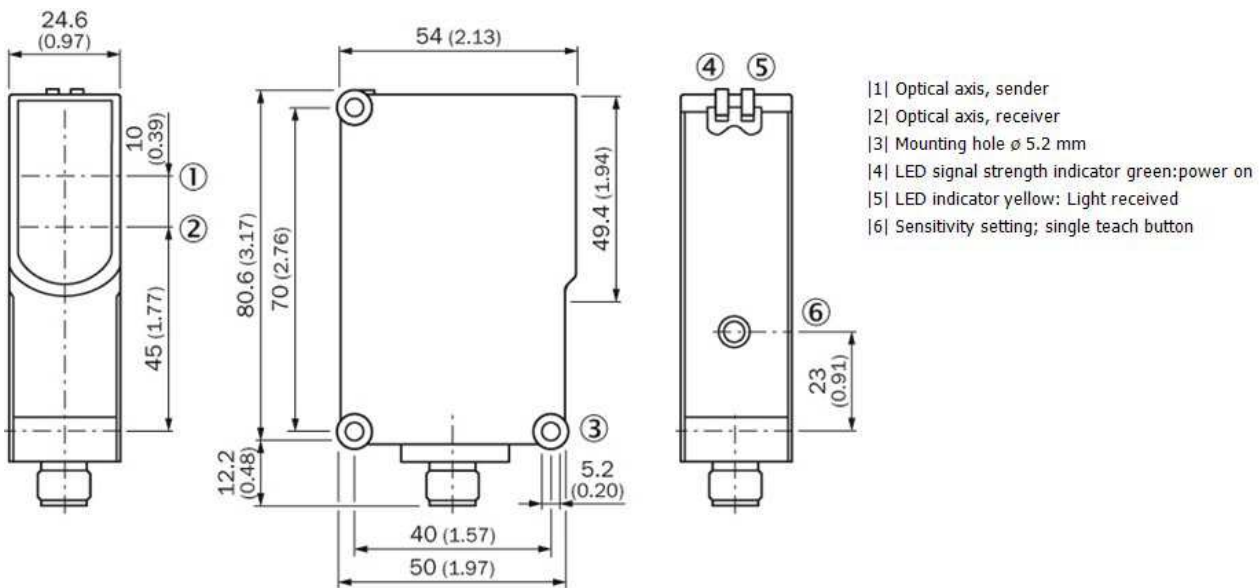
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Power consumption:	≤ 35 mA <sup>2)</sup>
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching
Signal voltage PNP HIGH/LOW:	Approx. VS - 2.5 V / 0 V

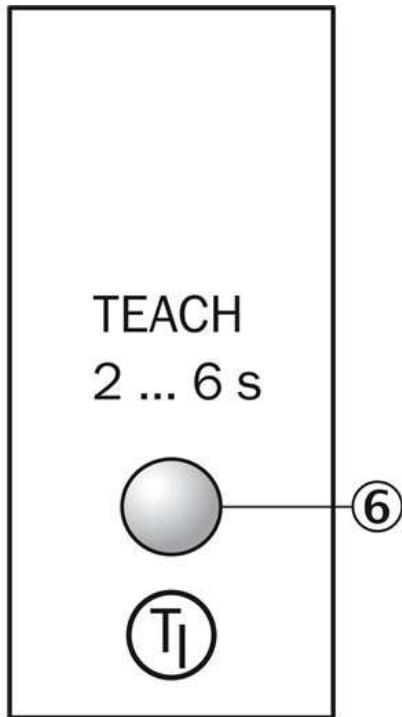
Output current I <sub>max</sub> ..:	≤ 100 mA
Response time:	≤ 1 ms <sup>3)</sup>
Switching frequency:	500 Hz <sup>4)</sup>
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D <sup>5) 6) 7)</sup>
Protection class:	II <sup>8)</sup>
Weight:	100 g
Polarisation filter:	✓
Special device:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-30 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

1) Limit values, operation in short-circuit protected network max. 8 A connections reverse-polarity protected<sup>6)</sup> C = interference suppression  
 2) Without load<sup>3)</sup> D = outputs overcurrent and short-circuit protected  
 3) Signal transit time with resistive load  
 4) With light/dark ratio 1:1  
 5) A = V<sub>S</sub>  
 6) Reference voltage 50 V DC  
 7) Reference voltage 50 V DC

### Dimensional drawing

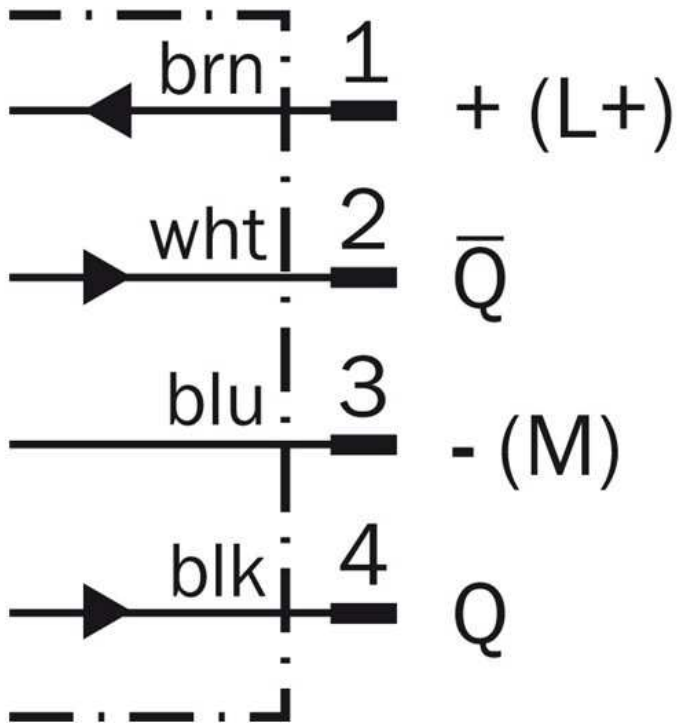


Adjustments possible



|6| Sensitivity setting; single teach button

Connection diagram



Connection type

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