



Photoelectric sensors
W34, Photoelectric retro-reflective sensor,
Standard optics

WL34-B430S01



Model Name > [WL34-B430S01](#)
Part No. > [1025624](#)



Illustration may differ

At a glance

- High operating reserve at a long range
- Switch selectable PNP or NPN output
- and light/dark switching
- Versions with DC voltage (10...30V) or universal AC/DC voltage (12 ... 240 V DC / 24 ... 240 V AC)
- Optional test input, adjustable ON and OFF time delays, alarm output
- M12 or terminal chamber connection: 90° rotatable
- UL approval

Your benefits

- High operating reserve at a long range minimizes downtime
- Alarm output provides early warning that maintenance may be needed
- Test input allows users to validate that the sensor is operating as expected
- The sensor cover protects configuration components against environmental hazards
- Adjustable time delay, alarm output, test input, and universal AC/DC voltage provide additional flexibility and reduce the number of part numbers needed



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Dimensions (W x H x D):	27 mm x 92 mm x 70 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.03 m ... 22 m ¹⁾
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Type of light:	Visible red light
Light source:	LED ³⁾
Wave length:	660 nm
Light spot diameter (distance):	Ø 250 mm (15 m)
Sensitivity adjustment:	Potentiometer

^{1) 2)} PL80A ³⁾ Average service life of 100,000 h at T_A = +25 °C

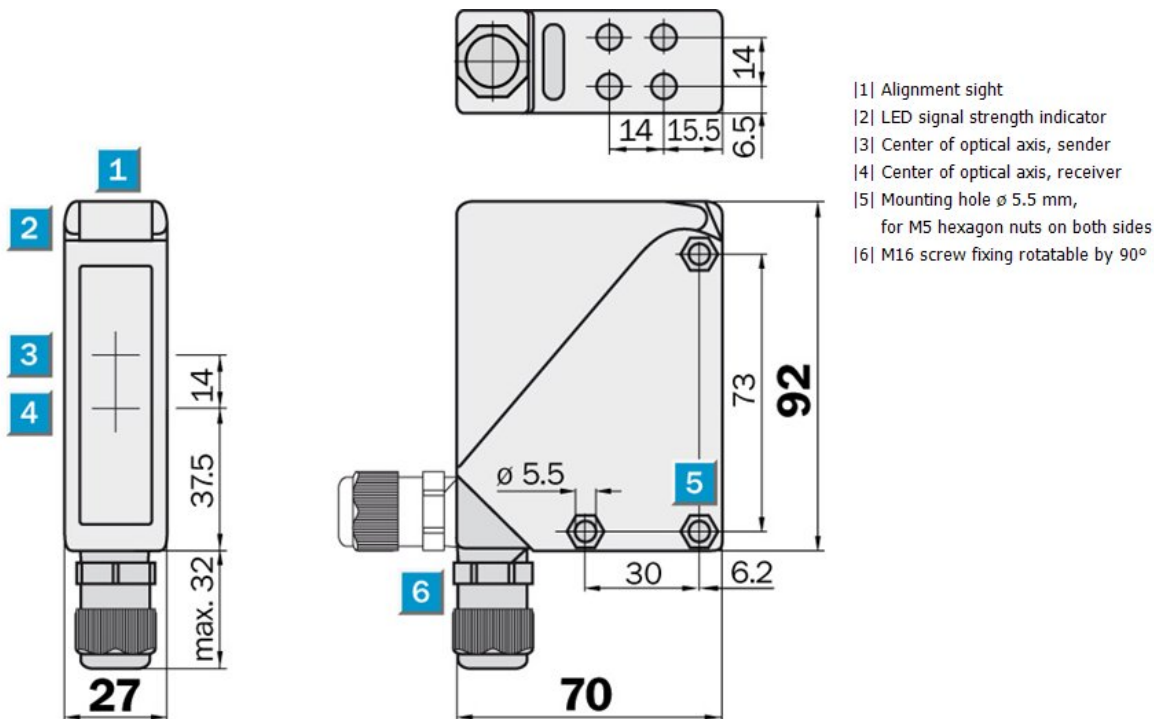
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	≤ 50 mA

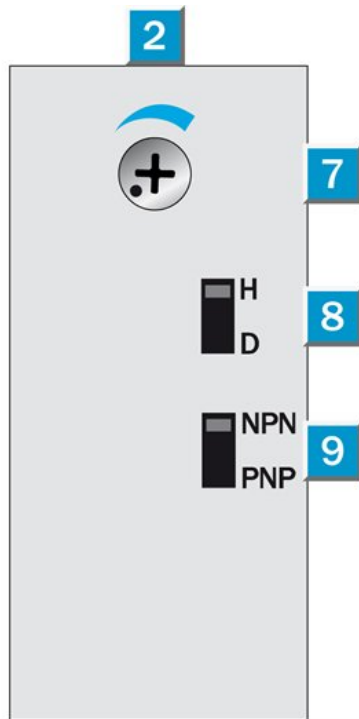
Output type:	NPN, PNP
Switching mode:	Dark-switching, Light switching
Switching mode selector:	Dark-switching (pre-setting), Selectable via light/dark selector, Selectable via PNP/NPN selector
Output current I _{max} :	100 mA
Response time:	≤ 500 μs ³⁾
Switching frequency:	1,000 Hz ⁴⁾
Connection type:	Connector M12, 4-pin ⁵⁾
Circuit protection:::	A, C, D ⁶⁾ ⁷⁾ ⁸⁾
Protection class:	II ⁹⁾
Weight:	140 g
Polarisation filter:	✓
Special device:	✓
Housing material:	ABS
Enclosure rating:	IP 67
Special features:	Dark-switching (pre-setting)
Test input sender off:	TE to 0 V
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Signal transit time with resistive load ⁴⁾ With light/dark ratio 1:1 ⁵⁾ Connection rotatable by 90° ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected ⁹⁾ Reference voltage 50 V DC

Dimensional drawing

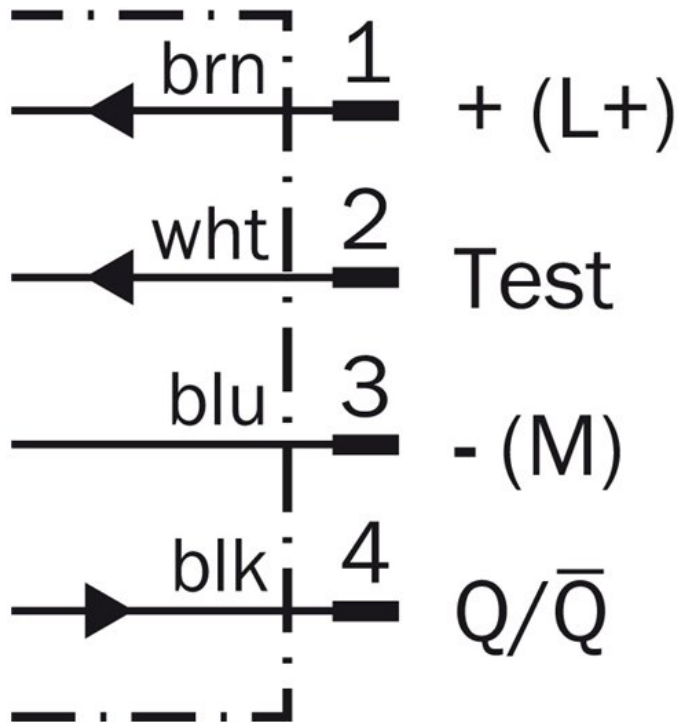


Adjustments possible

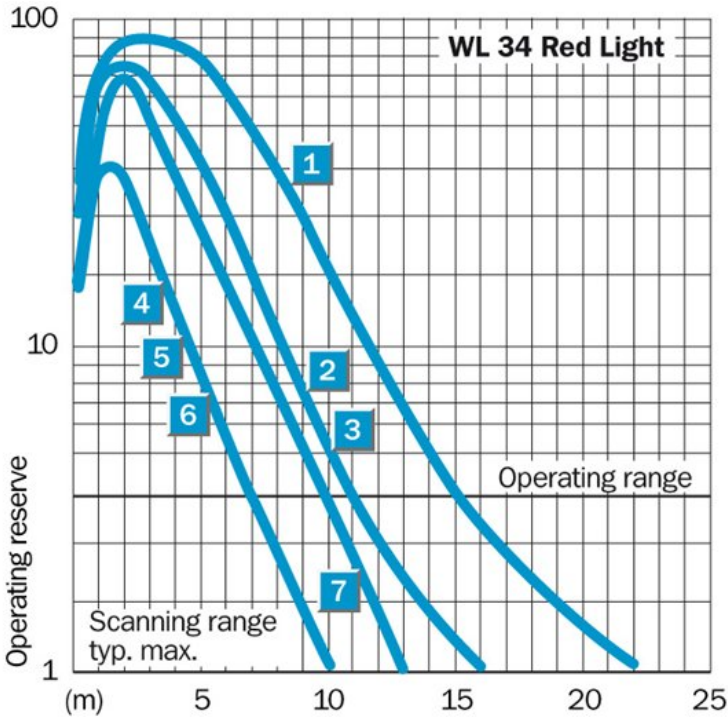


- |2| LED signal strength indicator
- |7| Sensitivity adjustment
- |8| Light/dark selector
- |9| NPN/ PNP selector

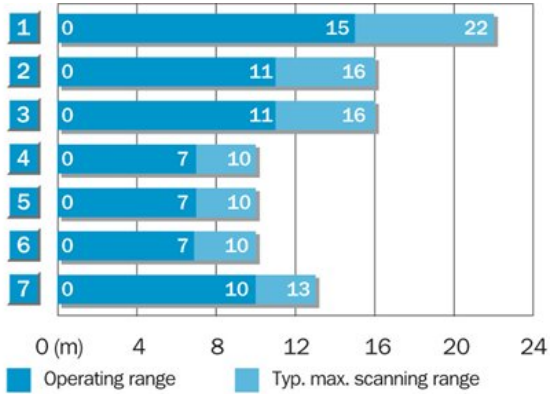
Connection diagram



Characteristic curve

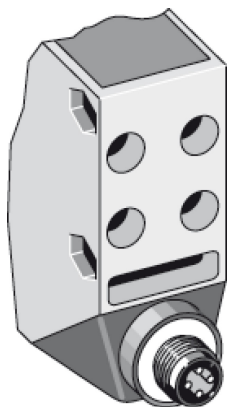


Sensing range diagram



Reflector type	Operating range
1 PL 80 A	0 to 15 m
2 PL 50 A	0 to 11 m
3 PL 40 A	0 to 11 m
4 PL 30 A	0 to 7 m
5 PL 20 A	0 to 7 m
6 Diamond Grade (20 cm x 20 cm)	0 to 7 m
7 C 110	0 to 10 m

Connection type



Australia

Phone +61 3 9457 0600
1800 334 802 – 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 sac@sick.com.br

Canada

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

Ceská 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 kundenservice@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 +972-4-6801000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

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

Nederlands

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

Norge

Phone +47 67 81 50 00
E-Mail austefjord@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 admin@sicksgp.com.sg

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 8865 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