



Photoelectric sensors
W34, Through-beam photoelectric sensor

WS/WE34-V230



Model Name > [WS/WE34-V230](#)
Part No. > [1019253](#)



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: | Through-beam photoelectric sensor |
| Dimensions (W x H x D): | 27 mm x 92 mm x 70 mm |
| Housing design (light emission): | Rectangular |
| Sensing range max.: | 0 m ... 60 m |
| Sensing range: | 0 m ... 60 m |
| Type of light: | Visible red light |
| Light source: | LED ¹⁾ |
| Wave length: | 660 nm |
| Alarm output: | ✓ |
| Angle of dispersion: | Ca. 1 ° |
| Adjustment: | Potentiometer |
| Light spot size (distance): | Ø 700 mm (50 m) |

¹⁾ Average service life of 100,000 h at T_A = +25 °C

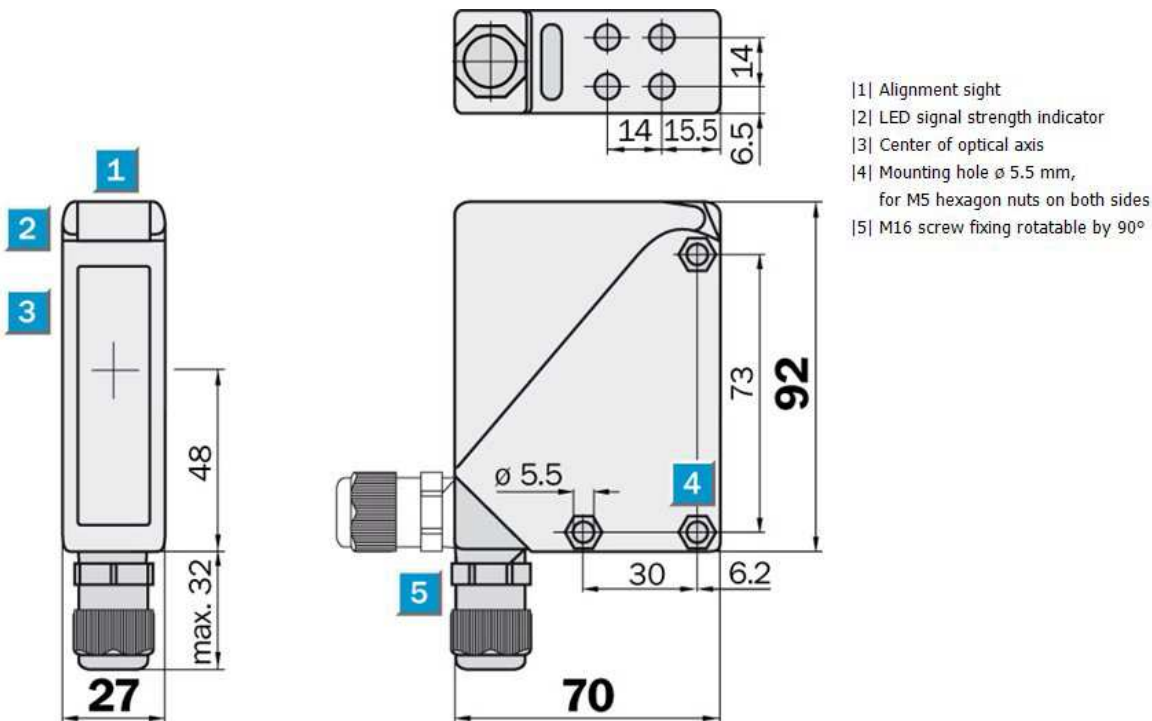
Mechanics/electronics

| | |
|-----------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | < 5 Vpp ²⁾ |

| | |
|---------------------------------------|---|
| Power consumption, sender: | 50 mA |
| Power consumption, receiver: | 40 mA |
| Output type: | NPN, PNP |
| Switching mode: | Dark switching, Light switching |
| Switching mode selector: | 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⁾ |
| Angle of reception: | Ca. 2.5 ° |
| Connection type: | Terminal connection with M16 gland ⁵⁾ |
| Circuit protection::: | A, C, D ^{6) 7) 8)} |
| Protection class: | II ⁹⁾ |
| Weight: | 280 g |
| Special device: | - |
| Enclosure rating: | IP 67 |
| Test input sender off: | TE to 0 V |
| Ambient operating temperature: | -40 °C ... +60 °C |
| Ambient storage temperature: | -40 °C ... +75 °C |
| Part number of individual components: | Receiver, WE34-V230, 2022809, Sender, WS34-D230, 2022817 |
| UL File No.: | NRKH.E181493 & NRKH7.E181493 |
| Housing material: | ABS, Plastic |

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

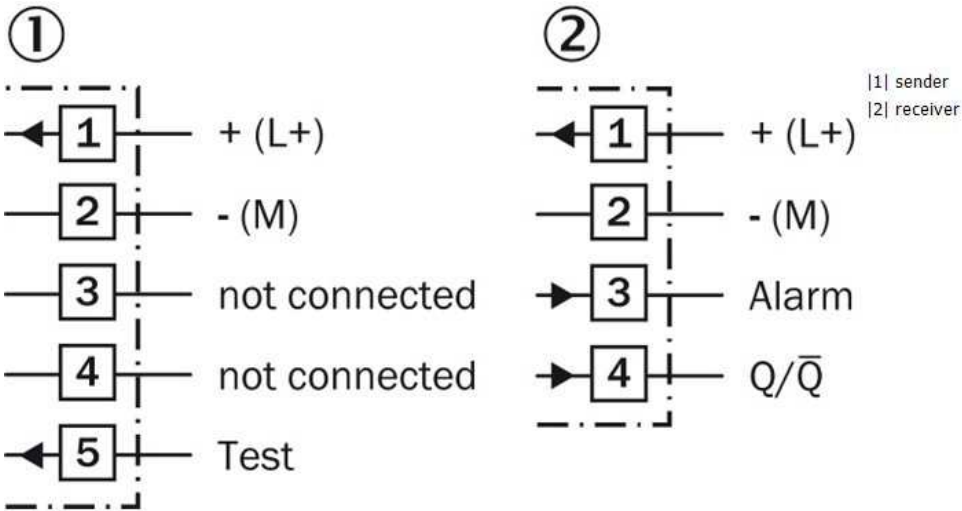


Adjustments possible

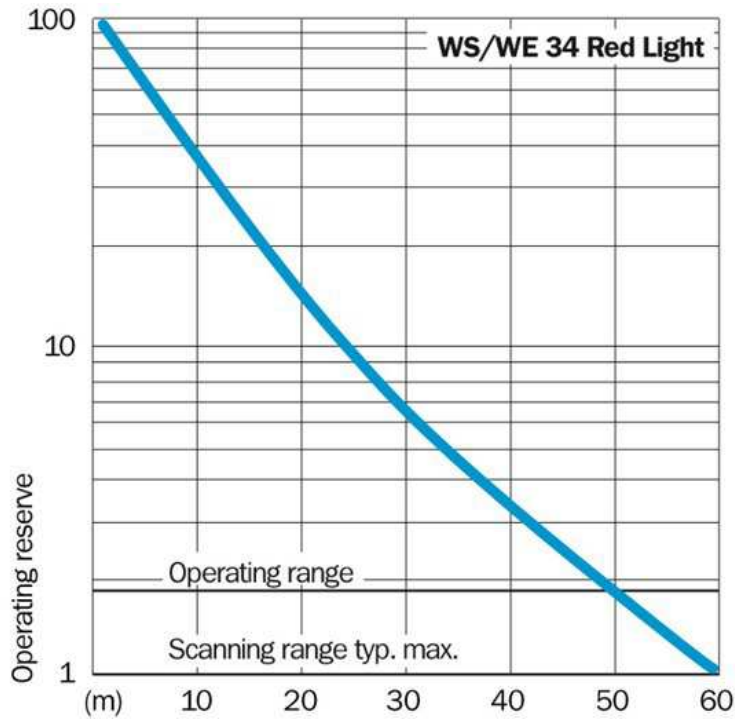


- |2| LED signal strength indicator
- |6| Sensitivity adjustment
- |7| Light/dark selector

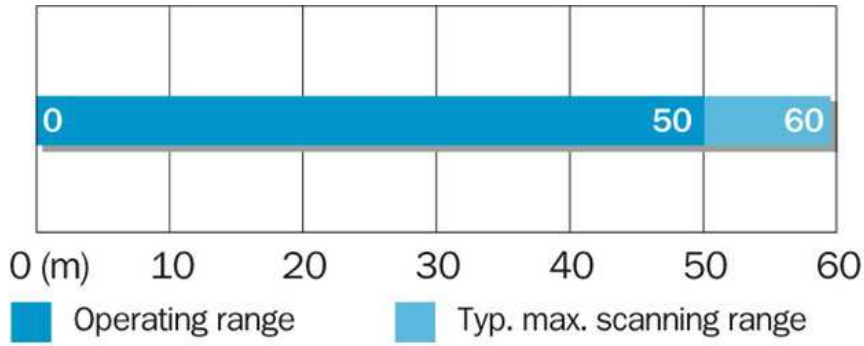
Connection diagram



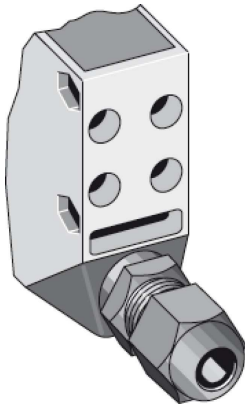
Characteristic curve



Sensing range diagram



Connection type



Australia

Phone +61 3 9457 0600
1800 33 48 02 – 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 marketing@sick.com.br

Canada

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

Česká 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 info@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 +972-4-6881000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

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

Nederland

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

Norge

Phone +47 67 81 50 00
E-Mail sick@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 sales.gsg@sick.com

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 88 65 878
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