



Photoelectric sensors
W18-3, Photoelectric proximity sensor,
Background suppression

WT18-3P610



Model Name > WT18-3P610
Part No. > 1025890



Illustration may differ

At a glance

- Sender LED with infrared light
- Precise background suppression
- Sensing range setting via potentiometer
- Immune to ambient light
- Rugged plastic housing

Your benefits

- Long sensing distances due to high-performance infrared light
- Reliable object detection with high-precision background suppression due to second sender LED
- Quick and easy sensing distance adjustment due to 4-turn potentiometer
- Crosstalk and ambient light immunity reduce false readings and downtime
- High availability in the field



Features

| | |
|----------------------------------|--|
| Sensor/detection principle: | Photoelectric proximity sensor, Background suppression |
| Dimensions (W x H x D): | 17.6 mm x 75.5 mm x 33.5 mm |
| Housing design (light emission): | Rectangular |
| Sensing range max.: | 10 mm ... 700 mm ¹⁾ |
| Sensing range: | 50 mm ... 700 mm ²⁾ |
| Type of light: | Infrared light |
| Light source: | LED ³⁾ |
| Adjustment: | Potentiometer, 4 turns |
| Light spot size (distance): | Ø 20 mm (400 mm) |
| Continuous threshold adaption: | - |

^{1) 2)} Object with 90 % reflectance (referred to standard white, DIN 5033) ³⁾ Average service life of 100,000 h at T_A = +25 °C

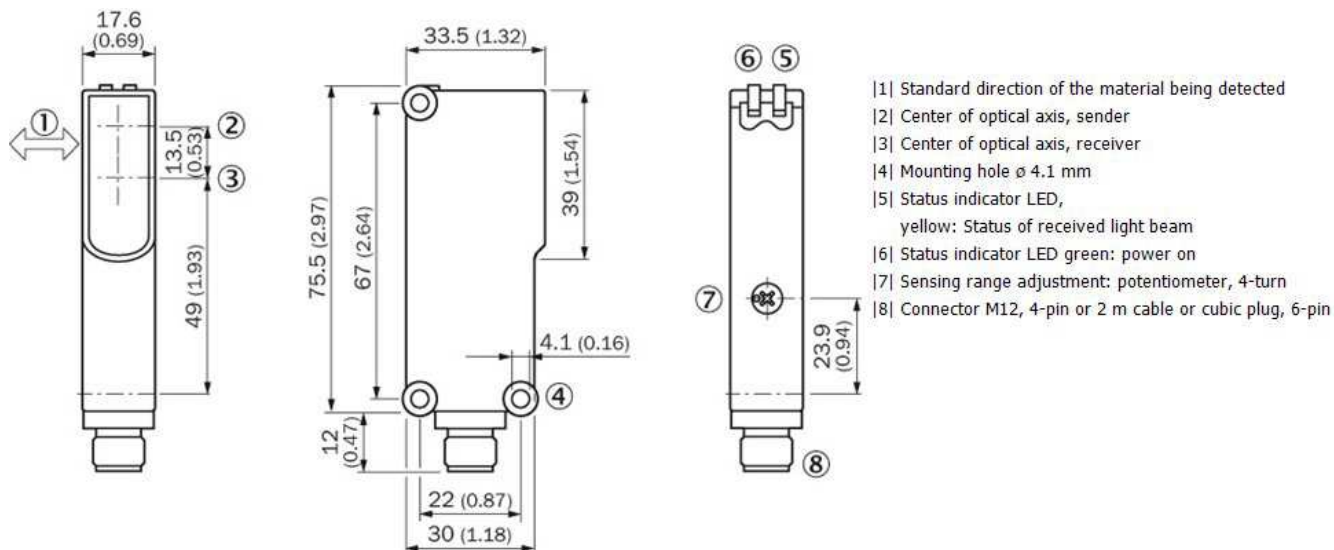
Mechanics/electronics

| | |
|------------------------------------|-----------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Ripple: | < 5 Vpp ²⁾ |
| Power consumption: | 55 mA ³⁾ |
| Output type: | PNP |
| Switching mode: | Light/dark switching |
| Output current I _{max.} : | 100 mA |
| Response time: | < 700 µs ⁴⁾ |

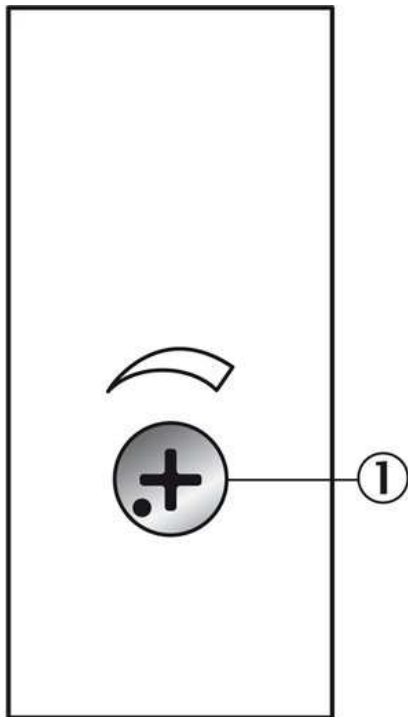
| | |
|--------------------------------|------------------------------|
| Switching frequency: | 700 Hz ⁵⁾ |
| Connection type: | Cubic connector, 6-pin |
| Circuit protection::: | A, C, D ^{6) 7) 8)} |
| Weight: | 70 g |
| Housing material: | ABS, Plastic |
| Optics material: | PMMA |
| Enclosure rating: | IP 65 |
| Ambient operating temperature: | -40 °C ... +60 °C |
| Ambient storage temperature: | -40 °C ... +75 °C |
| UL File No.: | NRKH.E181493 & NRKH7.E181493 |

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) C = interference suppression 8) D = outputs overcurrent and short-circuit protected

Dimensional drawing

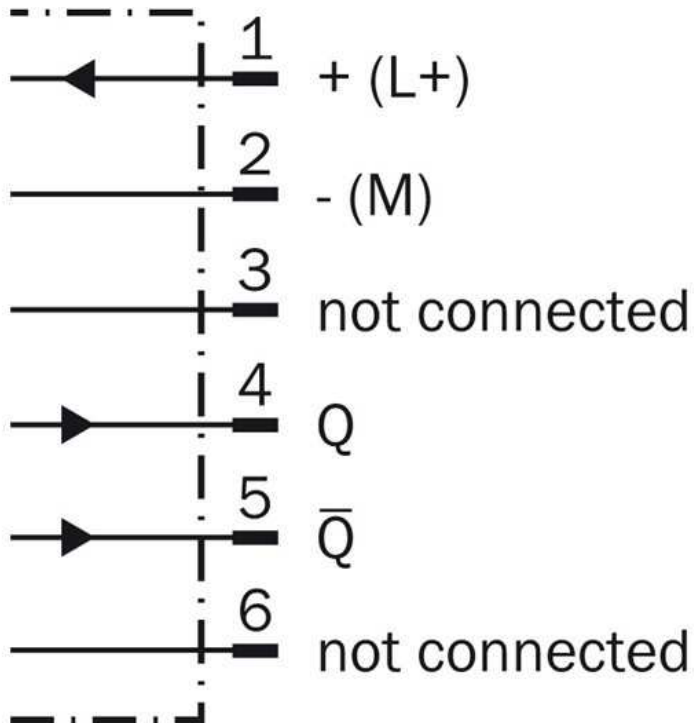


Adjustments possible

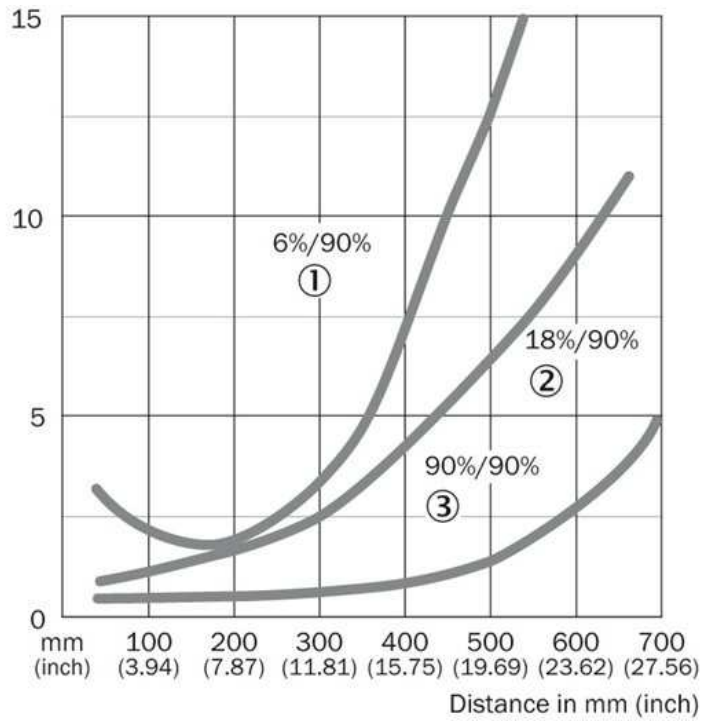


[1] Sensing range adjustment: potentiometer, 4-turn

Connection diagram

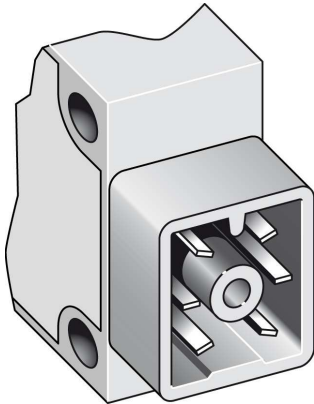


Characteristic curve

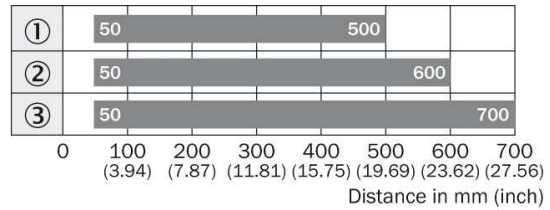


- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

Connection type



Sensing range diagram



■ Sensing range

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