



Photoelectric sensors
V18, Photoelectric proximity sensor, Background
blanking

VTF18-4N5240



Model Name > [VTF18-4N5240](#)
Part No. > [6012966](#)



Illustration may differ

At a glance

- Cylindrical M18 housing
- Sensing distance up to 50 mm or 100 mm
- Precise background blanking
- 3- or 4-wire
- Straight or right-angle housing
- Metal or plastic housing

Your benefits

- Simple, standardized design ensures easy mounting, alignment and replacement
- Compact, space-saving design easily fits in tight application spaces



Features

| | |
|----------------------------------|---|
| Sensor/detection principle: | Photoelectric proximity sensor, Background blanking |
| Housing design (light emission): | Cylindrical, straight, straight |
| Housing length: | 78 mm |
| Thread diameter (housing): | M18 x 1 |
| Optical axis: | axial |
| Sensing range max.: | 0 mm ... 50 mm ¹⁾ |
| Sensing range: | 0 mm ... 45 mm |
| Type of light: | Infrared light |
| Light source: | LED ²⁾ |
| Light spot (distance): | 3 mm (25 mm) |
| Sensitivity adjustment: | Potentiometer, 270° |

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

Mechanics/electronics

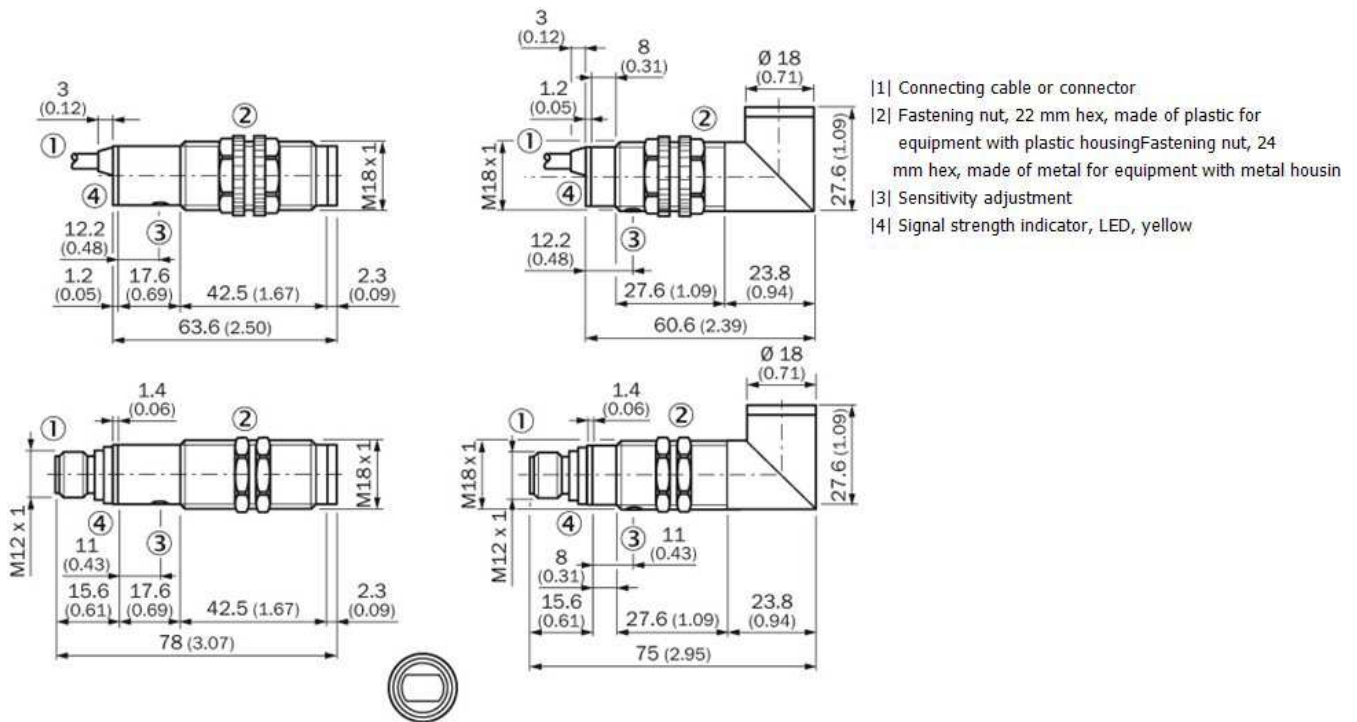
| | |
|------------------------------------|--|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Residual ripple: | ≤ 10 % ²⁾ |
| Power consumption: | ≤ 30 mA ³⁾ |
| Output type: | NPN, Light/dark-switching, Selectable via L/D control wire, open collector |
| Output current I _{max} .: | 100 mA |
| Response time: | ≤ 2 ms ⁵⁾ |
| Switching frequency: | 250 Hz ⁶⁾ |
| Electrical connection: | Connector M12, 4-pin |

| | |
|--------------------------------|------------------------------------|
| Circuit protection::: | A, B, C, D ^{7) 8) 9) 10)} |
| Protection class: | III |
| Weight: | 120 g |
| Housing material: | Nickel-plated brass |
| Optics material: | PMMA |
| Enclosure rating: | IP 67 |
| Special feature: | Focused optics |
| Ambient temperature operation: | -25 °C ... 70 °C |
| UL File-No.: | UL No. NMFT2.E175606 |

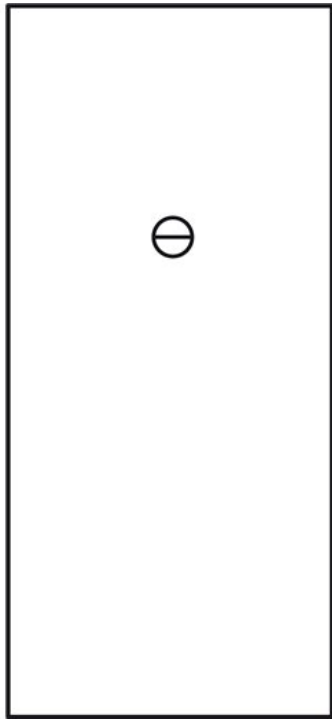
Control wire open: light-switching L.ON;

1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Control wire open: light-switching L.ON 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) $A = V_S$ connections reverse-polarity protected 8) B = inputs and output reverse-polarity protected 9) C = interference suppression 10) D = outputs overcurrent and short-circuit protected

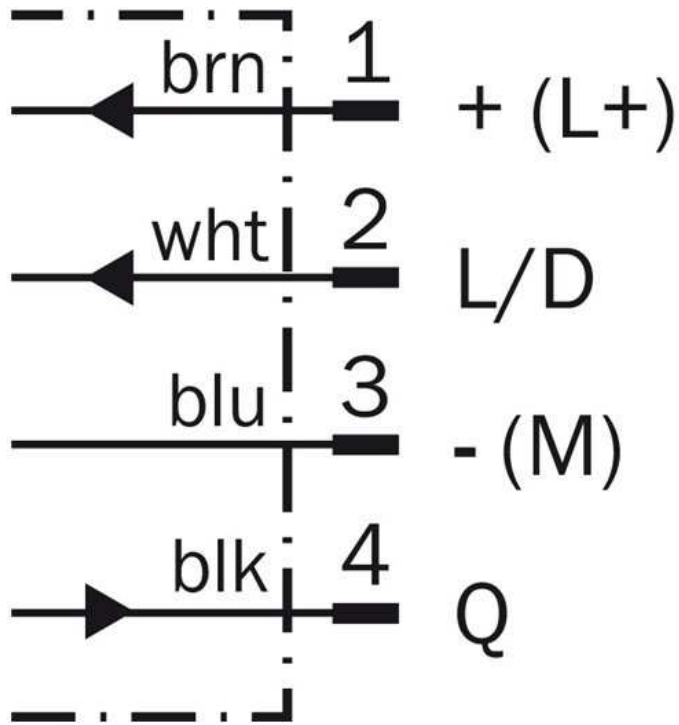
Dimensional drawing



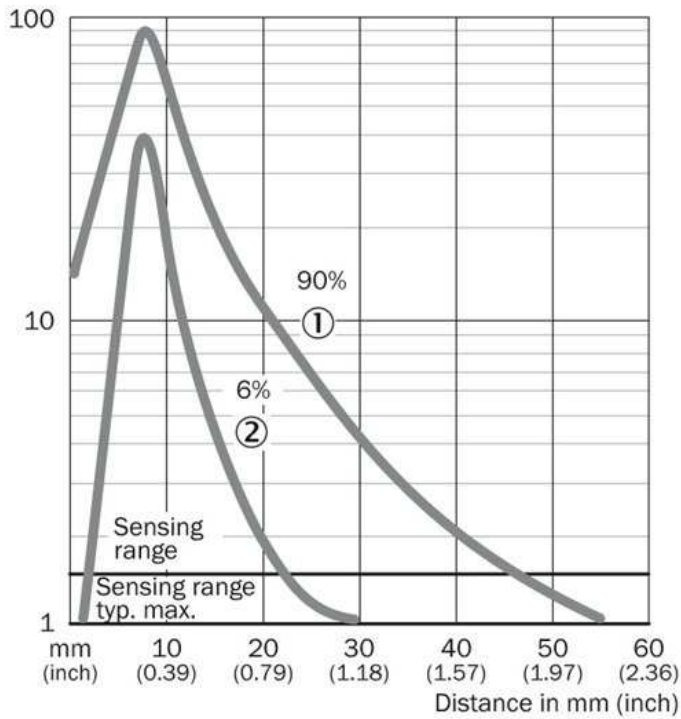
Adjustments possible



Connection diagram



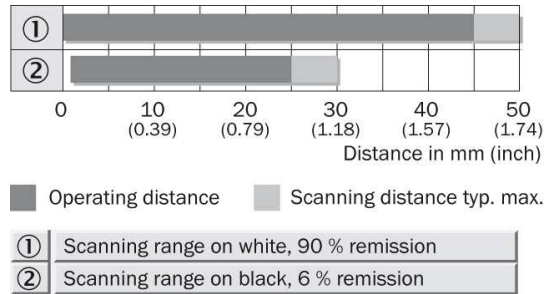
Characteristic curve



Connection type



Sensing range diagram



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