

ONLINE DATA SHEET
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Photoelectric sensors
V18, Photoelectric proximity sensor, Background blanking

VTF18-4N1240



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V18, Photoelectric proximity sensor, Background blanking

Model Name > VTF18-4N1240
Part No. > 6012822





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.:	3 mm ... 100 mm [1]
Sensing range:	3 mm ... 90 mm
Type of light:	Infrared light
Light source:	LED [2]
Light spot (distance):	3 mm (50 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 [4]
Output current Imax.:	100 mA
Response time:	≤ 2 ms [5]
Switching frequency:	250 Hz [6]
Electrical connection:	Connector M12, 4-pin

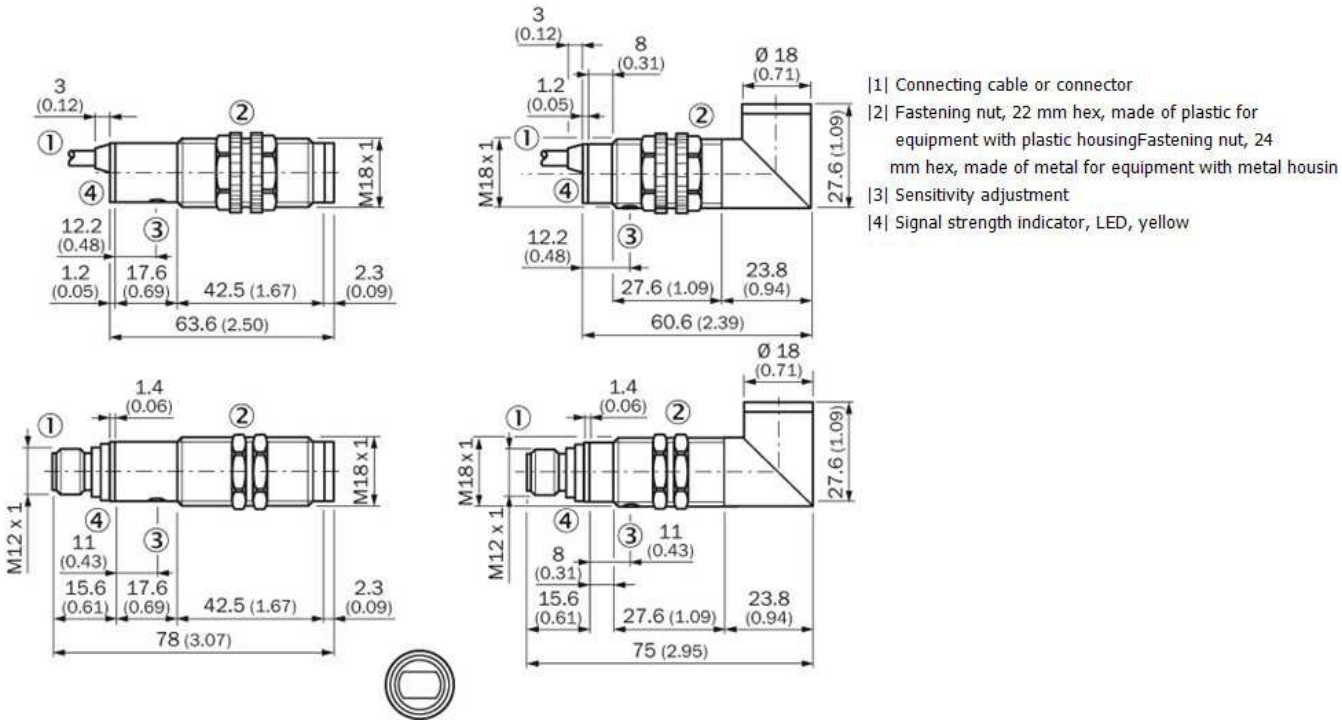
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Circuit protection::::	A, B, C, D [7) 8) 9) 10)]
Protection class:	III
Weight:	120 g
Housing material:	Nickel-plated brass
Optics material:	PMMA
Enclosure rating:	IP 67
Special feature:	Focused optics
Ambient temperature operation:	-25 °C ... 70 °C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

Control wire open: light-switching L.ON;

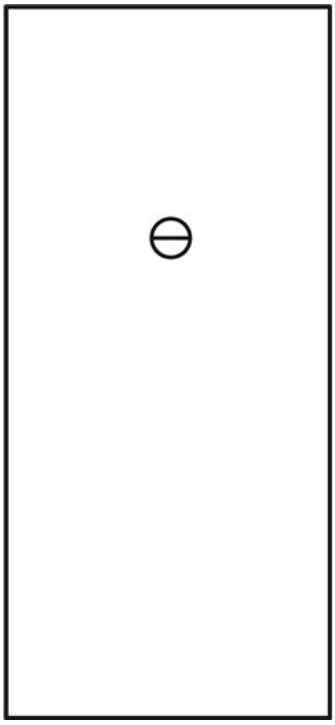
[1)] Limit values [2)] May not exceed or fall short of V_S tolerances [3)] Without load [4)] Control wire open: light-switching L.ON [5)] Signal transit time with resistive load [6)] With light/dark ratio 1:1 [7)] A = V_S connections reverse-polarity protected [8)] B = inputs and output reverse-polarity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

Dimensional drawing

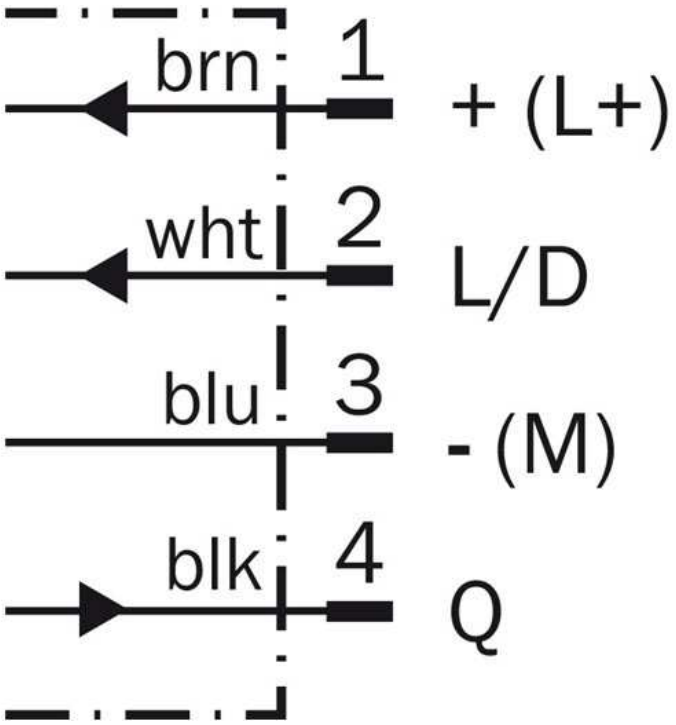


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Adjustments possible

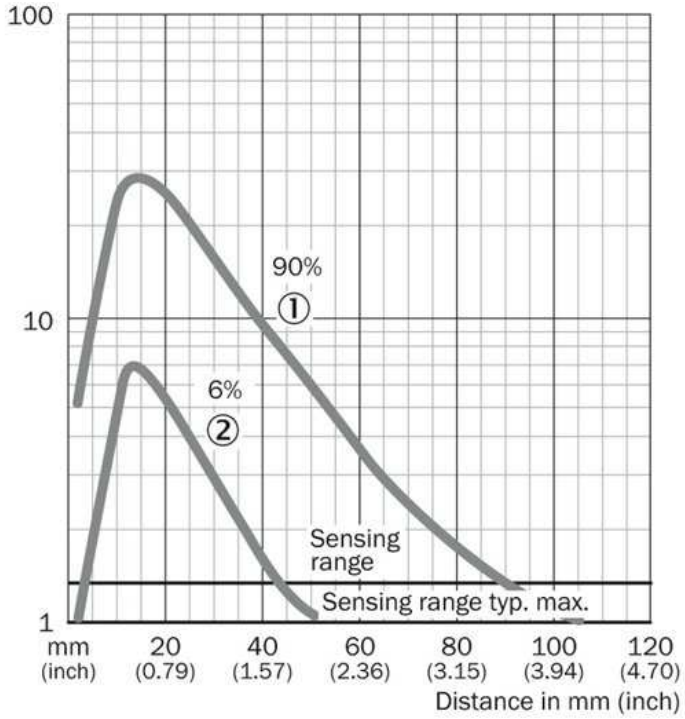


Connection diagram



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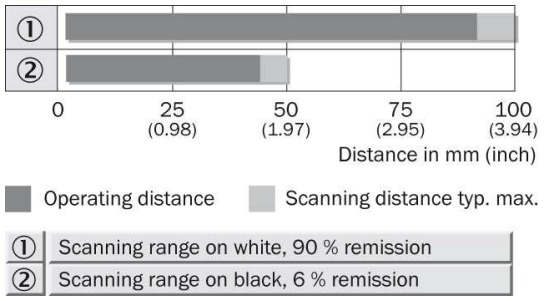
Characteristic curve



Connection type



Sensing range diagram



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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**

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