



Mid range distance sensors DS40

DS40-P21221



Model Name > **DS40-P21221**
Part No. > **1043825**



At a glance

- Safe background suppression of any object in the back (up to 100 m)
- Detection of highly dynamic targets: black to extremely shiny
- Measuring range up to 5 m
- Precise alignment by red laser light
- Easy and fast teach-in via teach button
- One switching output for standard applications

Your benefits

- Fast and reliable detection of objects due to its solid performance
- Cost-efficient design ensures low investment costs
- Red laser light ensures fast, precise alignment, reducing commissioning costs
- Easy one-button teach-in ensures fast and easy commissioning
- Full mechanical compatibility to Dx60 product family offers increased flexibility for future upgrades



CE  **CDRH**

Performance

Measuring range ^{1), 2), 3)} :	80 mm ... 2,000 mm, 6 % remission 80 mm ... 4,000 mm, 18 % remission 80 mm ... 5,000 mm, 90 % remission
Response time:	10 ms
Switching frequency:	50 Hz
Light source:	Laser, red
Laser protection class:	2 (EN 60825-1)
Typ. light spot size (distance):	9 mm x 9 mm (at 4.5 m)
Additional function:	Inverted switching output
Service life:	50,000 h

^{1) 2) 3)} Teach-in from 200 ... 5,000 mm

Interfaces

Output type:: 1 x PNP (100 mA) ^{1) 2)}

¹⁾ Output Q short-circuit protected ²⁾ PNP: HIGH = $V_S - (< 2.5 V)$ / LOW = 0 V

Mechanics/electronics

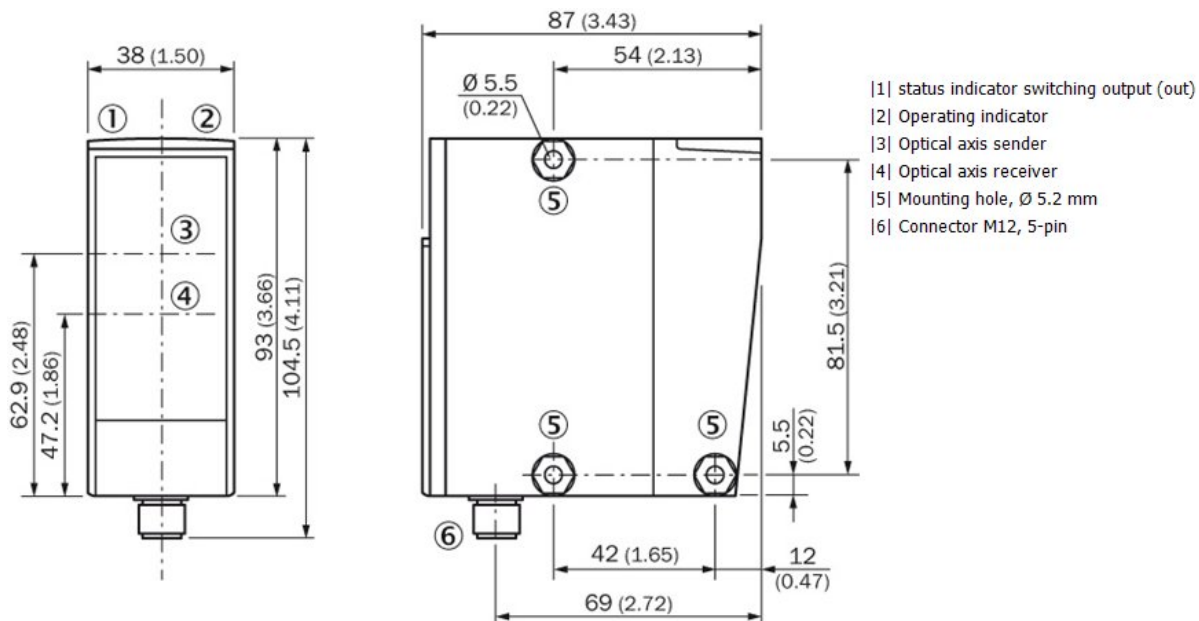
Supply voltage V_s ¹⁾ :	DC 11 V ... 30 V
Ripple ²⁾ :	≤ 5 Vpp
Power consumption ³⁾ :	< 3 W
Connection type:	Connector M12, 5-pin
Weight:	202 g

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network, max. 8 A ²⁾ May not fall short of or exceed V_s tolerances ³⁾ Without load

Ambient data

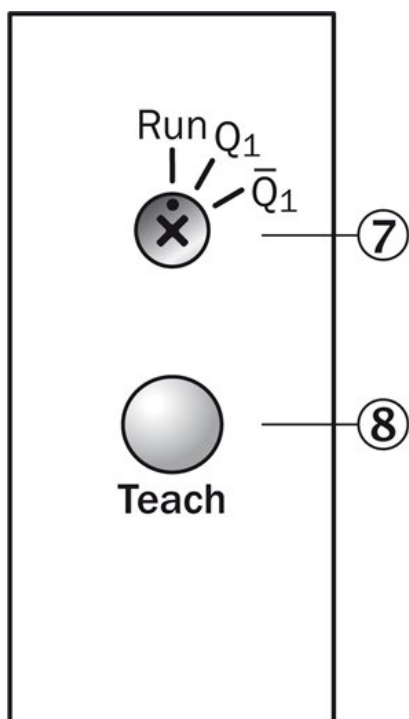
Enclosure rating:	IP 67
Protection class:	III
EMC:	EN 61000-6-2 EN 60947-5-2
Ambient temperature:	Operation: -25 ... 50 °C, Storage: -25 ... 75 °C

Dimensional drawing



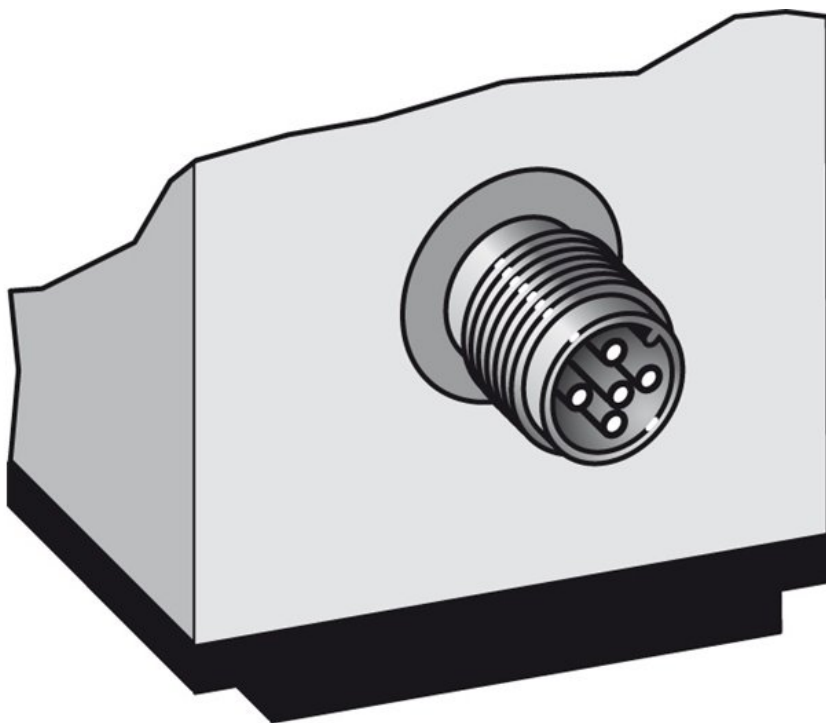
All dimensions in mm (inch)

Adjustment possible

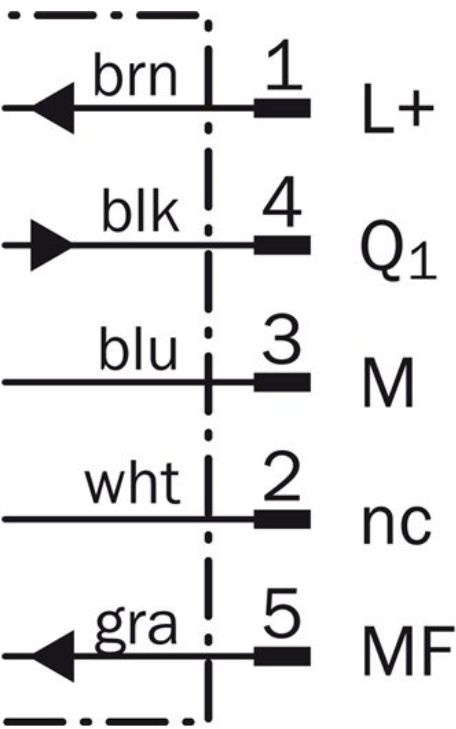


- |7| rotary switch
- |8| Control element

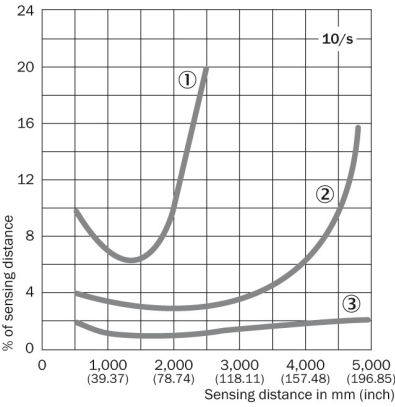
Connection type



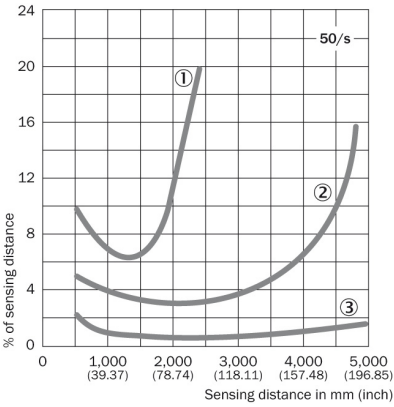
Connection diagram



Characteristic curve: sensing distance 10/s



Characteristic curve: sensing distance 50/s



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