



## Single-beam photoelectric safety switch L21

L21E-21MA1A, L21S-21MA1A



**Receiver**

Model Name > L21E-21MA1A  
Part No. > 6034875



**Sender**

Model Name > L21S-21MA1A  
Part No. > 6034874



**At a glance**

- Small M18 sensors with ranges up to 10 m
- Compact M30 sensors with ranges up to 60 m
- Universal use up to Type 2, with safety control solutions from SICK
- Metal and plastic version
- Radial optics (90° deflector mirror)
- Temperature range from -40 °C ... + 55 °C
- Enclosure rating IP 67
- Straightforward diagnostics and service

**Your benefits**

- Easy integration due to small, compact versions with maximum range
- Directly connect to a safety controller - without a separate evaluation unit, reducing costs
- Flexible device integration makes it possible to set up individual protective fields
- Well suited to withstand extreme ambient conditions such as heat, cold or moisture



**Applications**

Access protection (vertical): ✓

**Technical Data-Sender**

Scanning range: 0 m ... 16 m  
 Number of beams: 1  
 Optical axis: axial  
 Aperture angle/receiving angle: according to type 2 (IEC 61496-2)  
 Light sender/type of light: LED/visible red light  
 Wave length: 660 nm  
 Protection class: III

Enclosure rating:	IP 67
Type:	Type 2 (EN 61496) <sup>1)</sup>
Safety integrity level:	SIL1 (IEC 61508) SILCL1 (IEC 62061) <sup>2)</sup>
Category:	category 2 (EN ISO 13849) <sup>3)</sup>
Test rate (external test):	100 /s (EN ISO 13849) <sup>4)</sup>
Maximum demand rate:	60 /min (EN ISO 13849) <sup>5)</sup>
Performance level:	PL c (EN ISO 13849) <sup>6)</sup>
PFHd:	1.0 * 1E-06 <sup>7)</sup>
TM (mission time):	20 a
Supply voltage typical, from, to:	24 V DC, 19.2 V DC, 28.8 V DC
Maximum power consumption:	≤ 20 mA
Design:	cylindrical
Dimensions (diameter x length):	M18 x 97.7 mm
Connection type:	plug M12 x 4 M18
Housing material:	Brass nickel-plated
Ambient operating temperature from ... to:	-40 °C ... 55 °C
Storage temperature from ... to:	-40 °C ... 75 °C
Air humidity from ... to:	non-condensing 15 ... 95 %
Vibration resistance (checked to):	5 g (IEC 60068-2-6)
Oscillation frequency from ... to:	10 Hz ... 55 Hz
Shock resistance:	10 g, 16 ms (IEC 60068-2-29)
Weight:	67 g

1) 2) 3) 6) 7) Only in conjunction with suitable testing device, e.g., Flexi Classic, DeviceNet Safety <sup>4)</sup> The test rate shall not be exceeded <sup>5)</sup> Between two demands on a safety-related response of the device, at least 100 internal or external tests must be carried out.

## Technical Data-Receiver

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PFHd:	1.0 * 1E-06 <sup>7)</sup>
TM (mission time):	20 a
Supply voltage typical, from, to:	24 V DC, 19.2 V DC, 28.8 V DC
Switching outputs:	PNP, Q <sup>8)</sup>
Maximum response time:	200 μs
Maximum switching current:	70 mA
Maximum power consumption:	≤ 30 mA
Design:	cylindrical
Dimensions (diameter x length):	M18 x 97.7 mm
Connection type:	plug M12 x 4 M18
Housing material:	Brass nickel-plated

Ambient operating temperature from ... to: -40 °C ... 55 °C  
Storage temperature from ... to: -40 °C ... 75 °C  
Air humidity from ... to: non-condensing 15 ... 95 %  
Vibration resistance (checked to): 5 g (IEC 60068-2-6)  
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1) 2) 3) 6) 7) Only in conjunction with suitable testing device, e.g., Flexi Classic, DeviceNet Safety 4) The test rate shall not be exceeded 5) Between two demands on a safety-related response of the device, at least 100 internal or external tests must be carried out. 8) Short-circuit protected

**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(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.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](http://www.sick.com)