



# L41E-33MA2A

L41

SAFETY SINGLE-BEAM SENSORS

**SICK**  
Sensor Intelligence.



## Ordering information

Type	part no.
L41E-33MA2A	6034862

Other models and accessories → [www.sick.com/L41](http://www.sick.com/L41)



## Detailed technical data

### Features

Scanning range	84 m
Number of beams	1
Detection capability	30 mm
Optical axis	Axial
Response time	0.2 ms
Response time	0.2 ms + Test device response time

### Safety-related parameters

Type	Type 4 (IEC 61496-1) <sup>1)</sup>
Safety integrity level	SIL 3 (IEC 61508) <sup>1)</sup>
Category	Category 4 (EN ISO 13849) <sup>1)</sup>
Performance level	PL e (EN ISO 13849) <sup>1)</sup>
PFH <sub>D</sub> (mean probability of a dangerous failure per hour)	$8.1 \times 10^{-10}$ (EN ISO 13849) <sup>1)</sup>
T <sub>M</sub> (mission time)	20 years (EN ISO 13849)

<sup>1)</sup> Only in combination with an appropriate test device, e.g., Flexi Classic or Flexi Soft.

### Interfaces

Connection type	Male connector M12, 4-pin, angled
Display elements	LED

### Electronics - Operating data

Protection class	III (IEC 61140)
Power consumption	30 mA

### Electronics - Switching output

Current-carrying capacity per OSSD	≤ 70 mA
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## Mechanics

<b>Design</b>	Cylindrical
<b>Dimensions (diameter x length)</b>	M30 x 100 mm
<b>Housing material</b>	Nickel-plated brass
<b>Front screen material</b>	Glass
<b>Weight</b>	212 g

## Ambient data

<b>Enclosure rating</b>	IP67 (EN 60529)
<b>Ambient operating temperature</b>	-40 °C ... +55 °C
<b>Storage temperature</b>	-40 °C ... +75 °C
<b>Air humidity</b>	15 % ... 95 %, Non-condensing
<b>Vibration resistance</b>	5 g, 10 Hz ... 55 Hz (IEC 60068-2-6)
<b>Shock resistance</b>	10 g, 16 ms (IEC 60068-2-27)

## Other information

<b>Aperture angle/receiving angle</b>	± 2.5° / ± 2.5°
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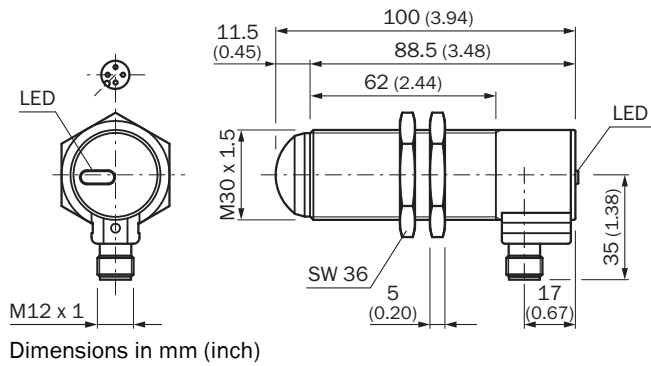
## Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cTUVus certificate</b>	✓
<b>EC-Type-Examination approval</b>	✓

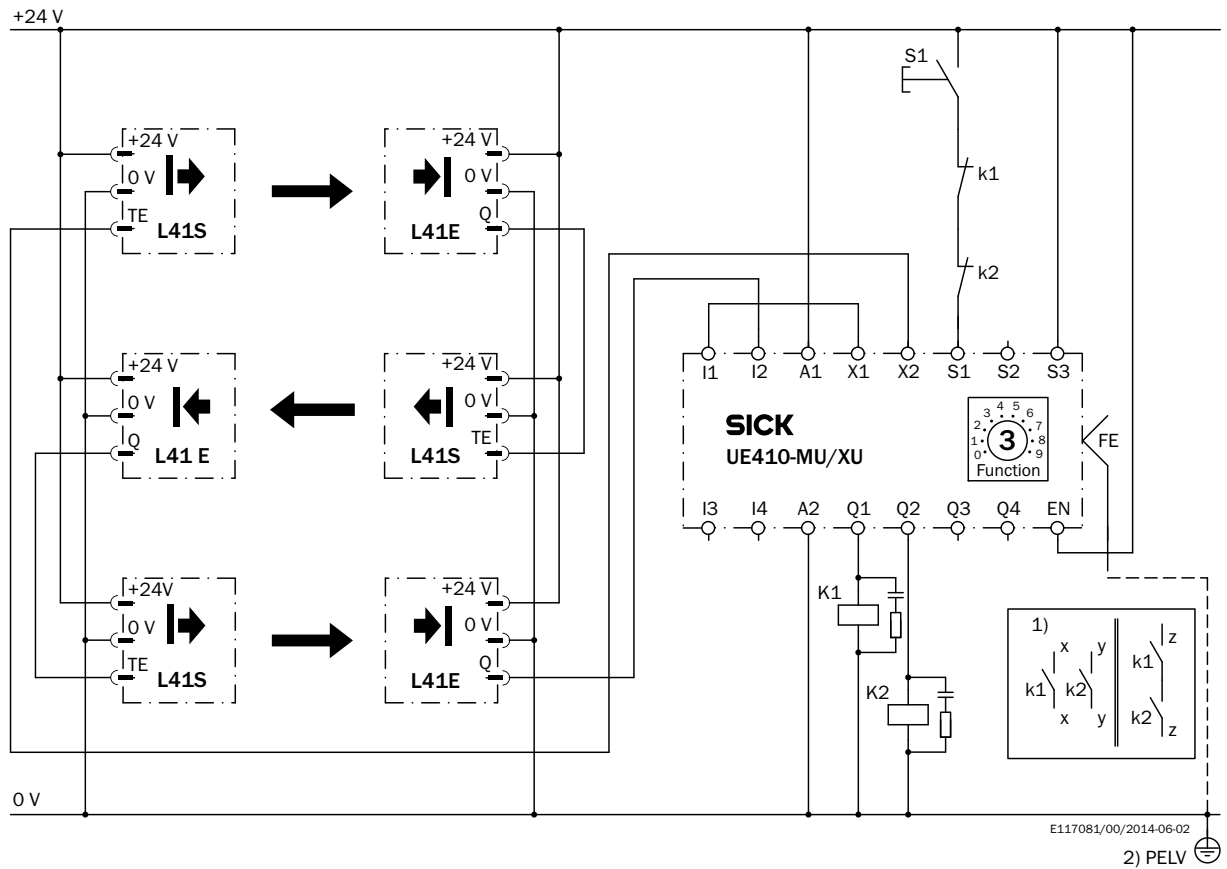
## Classifications

<b>ECLASS 5.0</b>	27272701
<b>ECLASS 5.1.4</b>	27272701
<b>ECLASS 6.0</b>	27272701
<b>ECLASS 6.2</b>	27272701
<b>ECLASS 7.0</b>	27272701
<b>ECLASS 8.0</b>	27272701
<b>ECLASS 8.1</b>	27272701
<b>ECLASS 9.0</b>	27272701
<b>ECLASS 10.0</b>	27272701
<b>ECLASS 11.0</b>	27272701
<b>ECLASS 12.0</b>	27272701
<b>ETIM 5.0</b>	EC001831
<b>ETIM 6.0</b>	EC001831
<b>ETIM 7.0</b>	EC001831
<b>ETIM 8.0</b>	EC001831
<b>UNSPSC 16.0901</b>	46171620

### Dimensional drawing M30, axial, angled


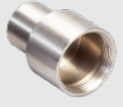









### Connection diagram 3 x L41 (cascaded) on Flexi Classic main unit and extension unit



## Recommended accessories

Other models and accessories → [www.sick.com/L41](http://www.sick.com/L41)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for M30 sensors</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Without mounting hardware</li> </ul>	BEF-WN-M30	5308445
Commissioning aids and test equipment			
	<ul style="list-style-type: none"> <li><b>Product:</b> Alignment aids</li> <li><b>Description:</b> Adapter AR60 for M30 sensors (L4000 Systems, L41 and L21)</li> </ul>	AR60 adapter, M30 sensors	5311529
reflectors and optics			
		PNS75-008	1026647
		PSK1	1005229
		PSK45	5306053
connectors and cables			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Description:</b> Unshielded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> ≤ 0.75 mm²</li> </ul>	DOS-1204-G	6007302
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Description:</b> Unshielded</li> <li><b>Connection systems:</b> Screw-type terminals</li> <li><b>Permitted cross-section:</b> ≤ 0.75 mm²</li> </ul>	DOS-1204-W	6007303
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-050VB3XLEAX	2096235
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A14-050VB3XLEAX	2095897

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)