



L41E-21MA1A

L41

SAFETY SINGLE-BEAM SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
L41E-21MA1A	6034867

Other models and accessories → www.sick.com/L41



Detailed technical data

Features

Scanning range	16 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) ¹⁾
Safety integrity level	SIL 3 (IEC 61508) ¹⁾
Category	Category 4 (EN ISO 13849) ¹⁾
Performance level	PL e (EN ISO 13849) ¹⁾
PFH _D (mean probability of a dangerous failure per hour)	8.1×10^{-10} (EN ISO 13849) ¹⁾
T _M (mission time)	20 years (EN ISO 13849)

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

Interfaces

Connection type	Male connector M12, 4-pin, straight
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

Design	Cylindrical
Dimensions (diameter x length)	M18 x 97.7 mm
Housing material	Nickel-plated brass
Front screen material	Glass
Weight	67 g

Ambient data

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

Other information

Aperture angle/receiving angle	± 2.5° / ± 2.5°
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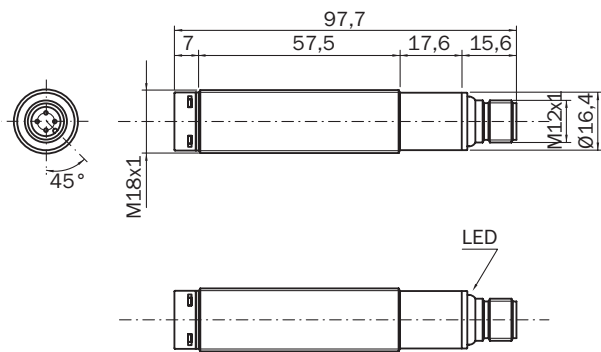
Certificates

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

Classifications

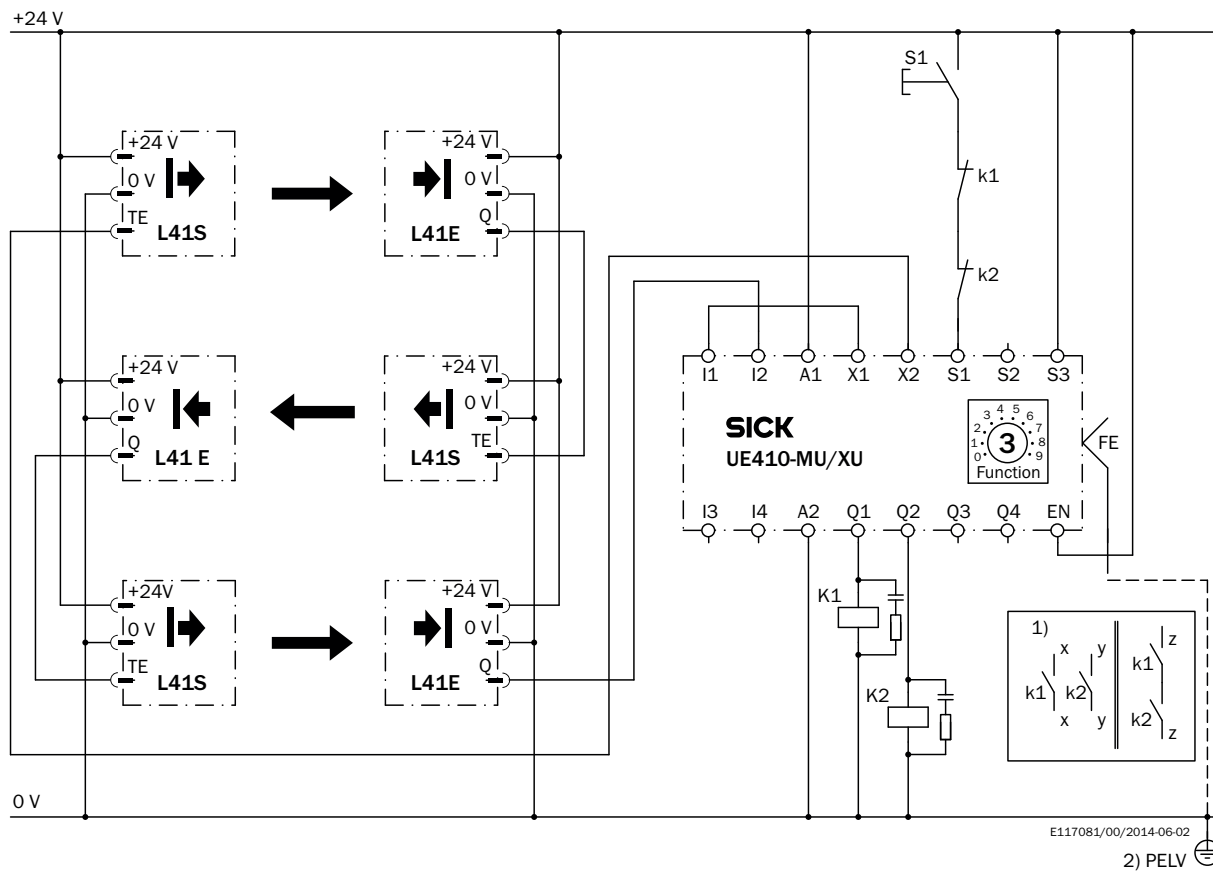
ECLASS 5.0	27272701
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ECLASS 6.0	27272701
ECLASS 6.2	27272701
ECLASS 7.0	27272701
ECLASS 8.0	27272701
ECLASS 8.1	27272701
ECLASS 9.0	27272701
ECLASS 10.0	27272701
ECLASS 11.0	27272701
ECLASS 12.0	27272701
ETIM 5.0	EC001831
ETIM 6.0	EC001831
ETIM 7.0	EC001831
ETIM 8.0	EC001831
UNSPSC 16.0901	46171620

Dimensional drawing M18, axial, straight



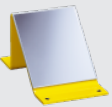
Dimensions in mm (inch)

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



Recommended accessories

Other models and accessories → www.sick.com/L41

	Brief description	Type	part no.
Mounting systems			
	Description: Mounting bracket for M18 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware Suitable for: GR18, V180-2, V18, W15, Z1, Z2	BEF-WN-M18	5308446
Commissioning aids and test equipment			
	Product: Alignment aids Description: Adapter AR60 for M18 sensors (L41 and L21)	AR60 adapter, M18 sensors	5313533
reflectors and optics			
		PNS75-008	1026647
		PSK1	1005229
		PSK45	5306053
connectors and cables			
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm²	DOS-1204-G	6007302
	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm²	DOS-1204-W	6007303
	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235
	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	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