



L40S-21MA1A

L4000 Systems

SINGLE-BEAM PHOTOELECTRIC SAFETY SWITCHES

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
L40S-21MA1A	6027339

Other models and accessories → www.sick.com/L4000_Systems



Detailed technical data

Features

Scanning range	0 m ... 10 m
Number of beams	1
Detection capability	30 mm
Optical axis	Axial
Response time	0.4 ms
Response time	0.4 ms + Test device response time (UE401)

Safety-related parameters

Type	Type 4 (IEC 61496-1) ¹⁾
Safety integrity level	SIL3 (IEC 61508) ¹⁾ SILCL3 (EN 62061) 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)	2.9×10^{-10} (EN ISO 13849) ¹⁾
T_M (mission time)	20 years (EN ISO 13849) ¹⁾

¹⁾ Only in conjunction with UE401.

Interfaces

Connection type	Male connector M12, 4-pin, straight
Diagnostic display	LED
Fieldbus, industrial network	
Integration via Flexi Soft safety controller	CANopen, DeviceNet™, EtherCAT®, EtherNet/IP™, Modbus TCP, PROFIBUS DP, PROFINET ¹⁾

¹⁾ For additional information on Flexi Soft → www.sick.com/Flexi_Soft.

Electrical data

Protection class	III (IEC 61140)
Supply voltage V_S	24 V DC (19.2 V DC ... 28.8 V DC)

Power consumption	≤ 60 mA
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Mechanical data

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

Ambient data

Enclosure rating	IP67 (EN 60529)
Ambient operating temperature	-20 °C ... +55 °C
Storage temperature	-25 °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 60068-2-29)

Other information

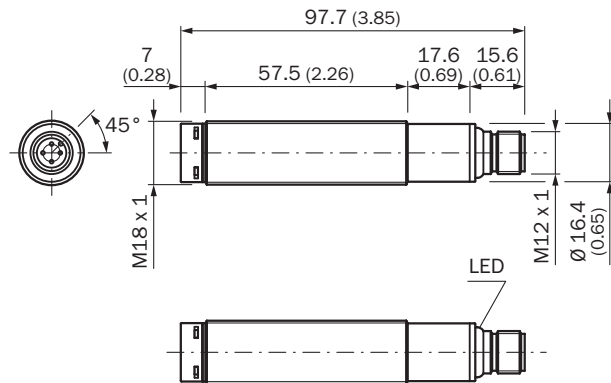
Light source	LED
Type of light	Visible red light
Wave length	660 nm
Aperture angle/receiving angle	± 2.5° / ± 2.5°

Classifications

ECI@ss 5.0	27272701
ECI@ss 5.1.4	27272701
ECI@ss 6.0	27272701
ECI@ss 6.2	27272701
ECI@ss 7.0	27272701
ECI@ss 8.0	27272701
ECI@ss 8.1	27272701
ECI@ss 9.0	27272701
ETIM 5.0	EC001831
ETIM 6.0	EC001831
UNSPSC 16.0901	46171620

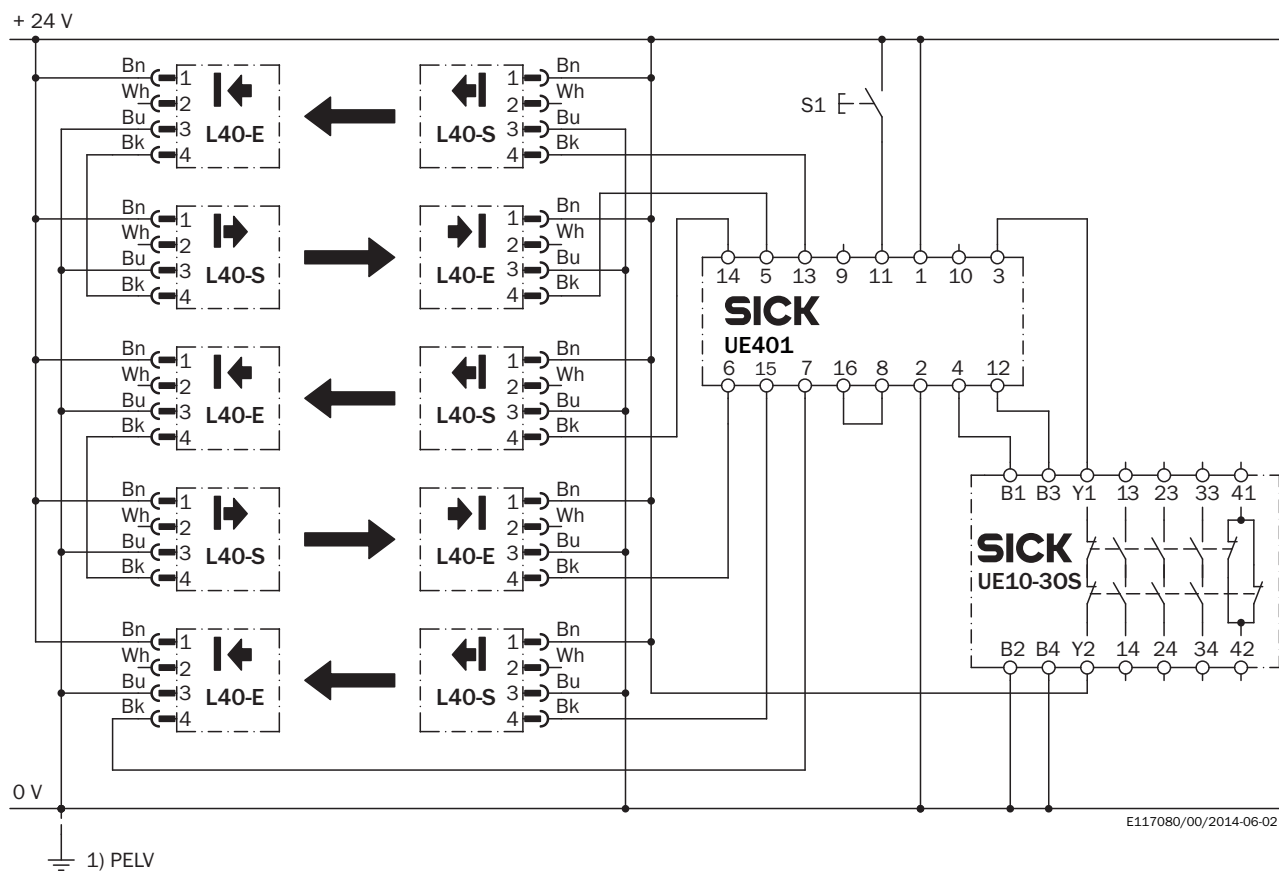
Dimensional drawing (Dimensions in mm (inch))

M18 axial



Connection diagram

5 x L4000 (two pairs cascaded) on UE401 with UE10-30S



Recommended accessories

Other models and accessories → www.sick.com/L4000_Systems

	Brief description	Description	Type	Part no.
Mounting brackets and plates				
	Mounting bracket for M18 sensors, steel, zinc coated, without mounting hardware		BEF-WN-M18	5308446
Plug connectors and cables				
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m		YF2A14-050VB3XLEAX	2096235
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m		YG2A14-050VB3XLEAX	2095897
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded		DOS-1204-G	6007302
	Head A: female connector, M12, 4-pin, angled Head B: - Cable: unshielded		DOS-1204-W	6007303
Alignment aids				
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!		AR60	1015741
	Adapter AR60 for M18 sensors (L41 and L21)		AR60 adapter, M18 sensors	5313533
Deflector mirrors				
	Horizontal deflection, 75 mm x 80 mm reflector surface, Glass, Incl. mounting kit (2 x swivel mount)		PNS75-008	1026647
	Horizontal deflection, 96 mm x 124 mm reflector surface, Glass		PSK1	1005229
	Deflector mirror for 90° deflection, mirror surface 97 mm x 80 mm, not suitable for column mounting, Glass, mounting hardware included		PSK45	5306053
Switching amplifiers				
		UE401	UE401-A0010	6027343

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