



# M40S-63A005AA0

M4000 Area

**MULTIPLE LIGHT BEAM SAFETY DEVICES**

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
M40S-63A005AA0	1200674

Other models and accessories → [www.sick.com/M4000\\_Area](http://www.sick.com/M4000_Area)



### Detailed technical data

#### Features

<b>Scanning range</b>	0.5 m ... 19 m, configurable
<b>Low scanning range</b>	0.5 m ... 6 m
<b>Great scanning range</b>	5 m ... 19 m
<b>Length of the monitored area</b>	750 mm
<b>Resolution</b>	60 mm
<b>Response time</b>	17 ms
<b>Synchronization</b>	Optical synchronisation

#### Safety-related parameters

<b>Type</b>	Type 4 (IEC 61496-1)
<b>Safety integrity level</b>	SIL3 (IEC 61508) SILCL3 (EN 62061)
<b>Category</b>	Category 4 (EN ISO 13849)
<b>Performance level</b>	PL e (EN ISO 13849)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	1.4 * E-08 (EN ISO 13849)
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)
<b>Safe state in the event of a fault</b>	At least one OSSD is in the OFF state.

#### Functions

	Functions	Delivery status
<b>Restart interlock</b>	✓	
<b>External device monitoring (EDM)</b>	✓	
<b>Beam coding</b>	✓	Uncoded
<b>Sender test</b>	✓	Deactivated
<b>Configurable scanning range</b>	✓	
<b>Configurable application diagnostic output</b>	✓	Contamination (OWS)
<b>Safe SICK device communication via EFI</b>	✓	

## Interfaces

<b>System connection</b>	
Connection type	Hirschmann male connector M26, 12-pin
Permitted cable length	≤ 50 m <sup>1)</sup>
Permitted cross-section	≥ 0.75 mm <sup>2</sup>
<b>Configuration method</b>	PC with CDS (Configuration and Diagnostic Software)
<b>Configuration connection</b>	
Connection type	Female connector M8, 4-pin
<b>Display elements</b>	LEDs 7-segment display
<b>Fieldbus, industrial network</b>	
Integration via EFI gateways	CANopen, Ethernet, PROFIBUS DP, PROFIBUS PROFI-safe, PROFINET PROFI-safe <sup>2)</sup>
Integration via Flexi Soft safety controller	CANopen, DeviceNet™, EtherCAT®, EtherNet/IP™, Modbus TCP, PROFIBUS DP, PROFINET <sup>3)</sup>

<sup>1)</sup> Depending on load, power supply and wire cross-section. The technical specifications must be observed.

<sup>2)</sup> For a suitable EFI-gateway see modules and gateways in the accessory section of connection systems.

<sup>3)</sup> For additional information on Flexi Soft -> [www.sick.com/Flexi\\_Soft](http://www.sick.com/Flexi_Soft).

## Electrical data

<b>Protection class</b>	III (IEC 61140)
<b>Supply voltage V<sub>S</sub></b>	24 V DC (19.2 V DC ... 28.8 V DC) <sup>1)</sup>
<b>Residual ripple</b>	≤ 10 % <sup>2)</sup>
<b>Power consumption</b>	≤ 0.2 A

<sup>1)</sup> The external voltage supply must be capable of buffering brief mains voltage failures of 20 ms as specified in EN 60204-1. Suitable power supplies are available as accessories from SICK.

<sup>2)</sup> Within the limits of V<sub>S</sub>.

## Mechanical data

<b>Housing cross-section</b>	52 mm x 55.5 mm
<b>Housing material</b>	Aluminum alloy ALMGS1 0.5
<b>Surface treatment</b>	Powder coated
<b>Front screen material</b>	Polycarbonate, scratch-resistant coating

## Ambient data

<b>Enclosure rating</b>	IP65 (EN 60529)
<b>Ambient operating temperature</b>	-30 °C ... +55 °C
<b>Storage temperature</b>	-30 °C ... +70 °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 60068-2-29)

## Other information

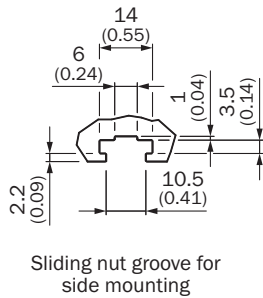
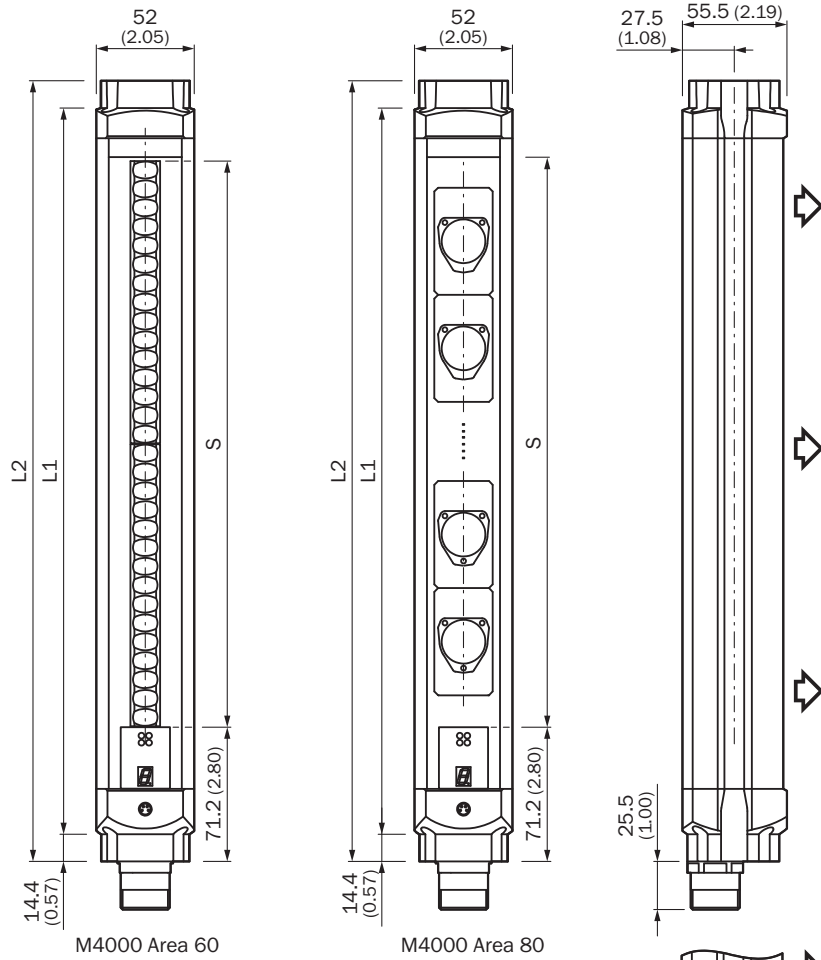
<b>Wave length</b>	850 nm
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## Classifications

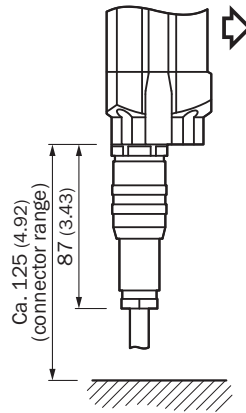
<b>ECl@ss 5.0</b>	27272703
<b>ECl@ss 5.1.4</b>	27272703

<b>ECl@ss 6.0</b>	27272703
<b>ECl@ss 6.2</b>	27272703
<b>ECl@ss 7.0</b>	27272703
<b>ECl@ss 8.0</b>	27272703
<b>ECl@ss 8.1</b>	27272703
<b>ECl@ss 9.0</b>	27272703
<b>ETIM 5.0</b>	EC001832
<b>ETIM 6.0</b>	EC001832
<b>UNSPSC 16.0901</b>	46171620

Dimensional drawing (Dimensions in mm (inch))



Sliding nut groove for side mounting



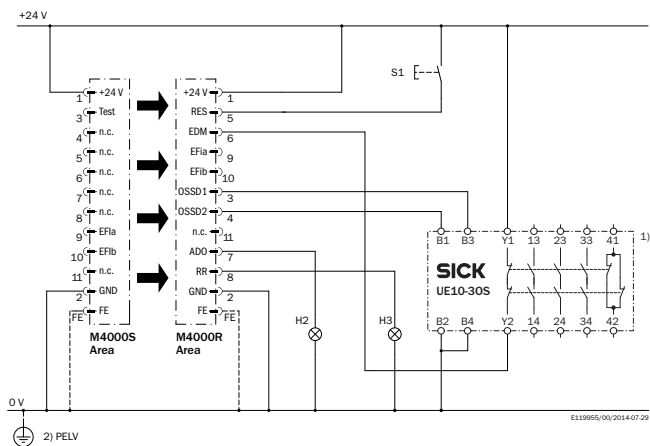
Cable socket M26 with crimp contacts (for DIN 43651)

Length of the monitored area S	L1	L2
300 (11.81)	387 (15.24)	416 (16.38)
450 (17.72)	537 (21.14)	566 (22.28)
600 (23.62)	687 (27.05)	716 (28.19)
750 (29.53)	837 (32.95)	866 (34.09)
900 (35.43)	987 (38.86)	1,016 (40.00)
1,050 (41.34)	1,137 (44.76)	1,166 (45.91)

Length of the monitored area S	L1	L2
1,200 (47.24)	1,287 (50.67)	1,316 (51.81)
1,350 (53.15)	1,437 (56.57)	1,466 (57.72)
1,500 (59.06)	1,587 (62.48)	1,616 (63.62)
1,650 (64.96)	1,737 (68.39)	1,766 (69.53)
1,800 (70.87)	1,887 (74.29)	1,916 (75.43)





## Connection diagram






M4000 area to UE10-30S safety relay



## Recommended accessories

Other models and accessories → [www.sick.com/M4000\\_Area](http://www.sick.com/M4000_Area)

Brief description	Type	Part no.
<b>Mounting brackets and plates</b>		
 4 pieces, Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers	BEF-3WNGBAST4	7021352
<b>Other mounting accessories</b>		
 2 pieces, Floor stands for the horizontal mounting of the safety light curtains C4000 Fusion, Entry/Exit, Palletizer, as well as the multi-beam safety light curtain M4000 Area, for mounting heights of between 70 mm and 780 mm., Includes mounting bracket	BEF-3HHOCAST2	2041661
<b>Terminal and alignment brackets</b>		
 4 pieces, Mounting kit 6, side bracket, rotatable, Zinc diecast	BEF-1SHABAZN4	2019506
 4 pieces, Mounting kit 12, rotatable, swivel mount	BEF-2SMGEAKU4	2030510

	Brief description	Type	Part no.
<b>Plug connectors and cables</b>			
	Head A: female connector, M26, 12-pin, straight Head B: Flying leads Cable: PVC, unshielded, 5 m	DOL-0612G05M075KM0	2022545
	Head A: female connector, M26, 12-pin, straight Head B: Flying leads Cable: PVC, unshielded, 10 m	DOL-0612G10M075KM0	2022547
	Head A: female connector, M26, 12-pin, straight Head B: Flying leads Cable: PVC, unshielded, 20 m	DOL-0612G20M075KM0	2022549
	Head A: female connector, M26, 12-pin, straight Cable: unshielded 12 crimping contacts enclosed	DOS-0612G000GA3KM0	6020757
	Head A: female connector, M26, 12-pin, angled Cable: unshielded 12 crimping contacts enclosed	DOS-0612W000GA3KM0	6020758
<b>Alignment aids</b>			
	Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!	AR60	1015741
	Adapter AR60 for M4000 and M4000 Curtain	AR60 adapter, M4000	4040006

## 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)