



# M40E-61A105RA0

M4000 Area

**SAFETY LIGHT CURTAINS**

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
M40E-61A105RA0	1207204

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

Illustration may differ



### Detailed technical data

#### Features

<b>System part</b>	Receiver
<b>Resolution</b>	80 mm
<b>Scanning range</b>	90 m
<b>Protective field height</b>	450 mm
<b>Synchronization</b>	Optical synchronization

#### Safety-related parameters

<b>Type</b>	Type 4 (IEC 61496-1)
<b>Safety integrity level</b>	SIL 3 (IEC 61508)
<b>Category</b>	Category 4 (EN ISO 13849)
<b>Performance level</b>	PL e (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>	✓	Internal
<b>External device monitoring (EDM)</b>	✓	Activated
<b>Beam coding</b>	✓	Uncoded
<b>Configurable status output (ADO)</b>	✓	Contamination (OWS)
<b>Sender test</b>	✓	Deactivated
<b>Configurable scanning range</b>	✓	Low scanning range
<b>Safe SICK device communication via EFI</b>	✓	

#### Interfaces

<b>System connection</b>	
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Connection type	Hirschmann male connector M26, 12-pin
<b>Configuration method</b>	PC with CDS (Configuration and Diagnostic Software)
<b>Configuration connection</b>	Female connector M8, 4-pin
<b>Display elements</b>	7-segment display, LEDs
<b>Status display</b>	LEDs

### Electronics

<b>Protection class</b>	III (IEC 61140)
<b>Supply voltage <math>V_S</math></b>	24 V DC (19.2 V DC ... 28.8 V DC)
<b>Residual ripple</b>	$\leq 10\%$ <sup>1)</sup>
<b>Power consumption</b>	$\leq 0.6\text{ A}$ <sup>2)</sup>
<b>Output signal switching devices (OSSDs)</b>	
Type of output	2 PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>3)</sup>
ON state, switching voltage HIGH	24 V DC ( $V_S - 2.25\text{ V DC}$ ... $V_S$ )
OFF state, switching voltage LOW	$\leq 2\text{ V DC}$
Current-carrying capacity per OSSD	$\leq 500\text{ mA}$

<sup>1)</sup> Within the limits of  $V_S$ .

<sup>2)</sup> Without load.

<sup>3)</sup> Applies to the voltage range between  $-30\text{ V}$  and  $+30\text{ V}$ .

### Mechanics

<b>Housing cross-section</b>	52 mm x 55.5 mm
<b>Housing material</b>	Aluminum alloy ALMGSI 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>	$-30\text{ °C}$ ... $+55\text{ °C}$
<b>Storage temperature</b>	$-30\text{ °C}$ ... $+70\text{ °C}$
<b>Air humidity</b>	15 % ... 95 %, Non-condensing
<b>Vibration resistance</b>	5 g, 10 Hz ... 55 Hz (EN 60068-2-6)
<b>Shock resistance</b>	10 g, 16 ms (EN 60068-2-27)

### Other information

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

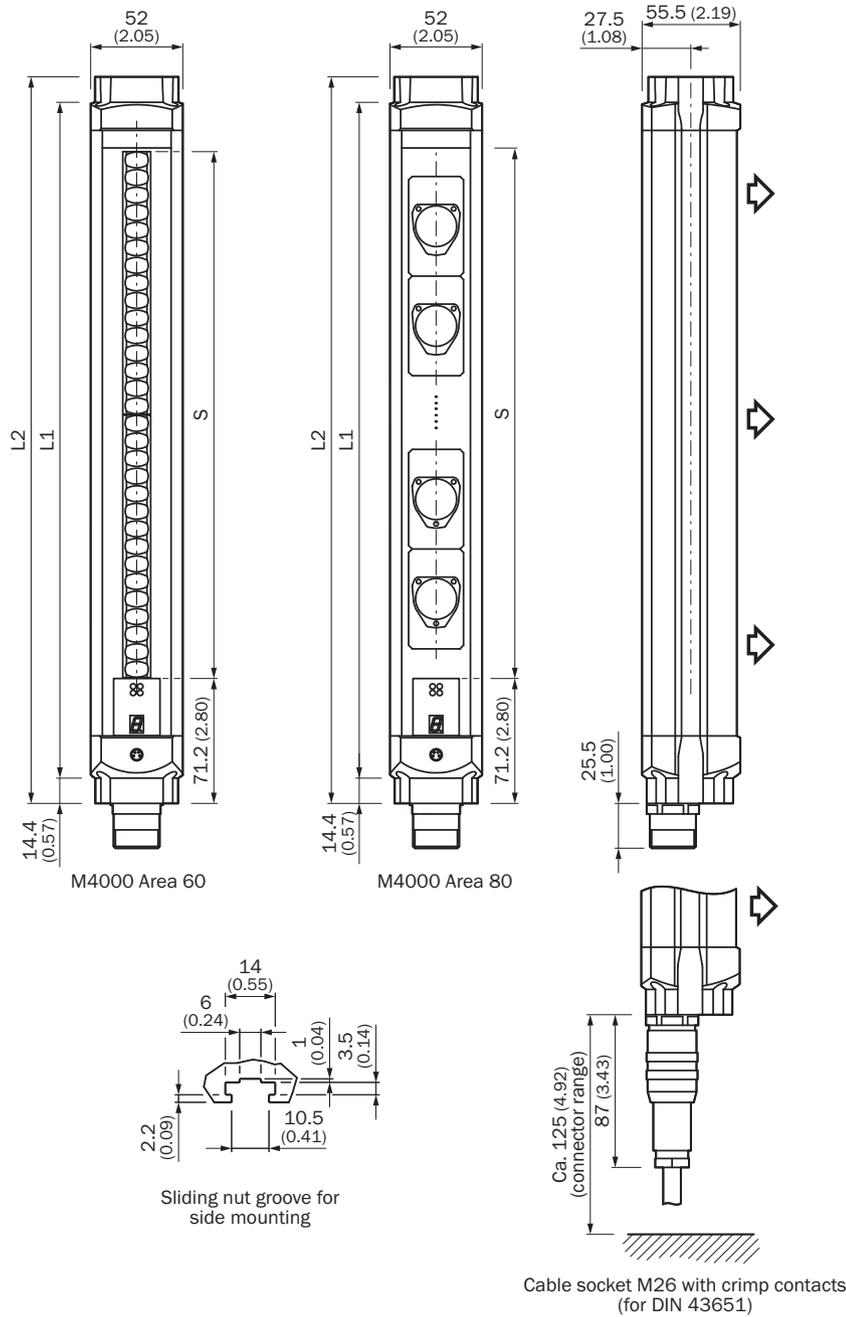
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>ULus approval</b>	✓
<b>cUL approval</b>	✓

<b>EC-Type-Examination approval</b>	✓
<b>Information according to Art. 3 of Data Act (Regulation EU 2023/2854)</b>	✓

### Classifications

<b>ECLASS 5.0</b>	27272704
<b>ECLASS 5.1.4</b>	27272704
<b>ECLASS 6.0</b>	27272704
<b>ECLASS 6.2</b>	27272704
<b>ECLASS 7.0</b>	27272704
<b>ECLASS 8.0</b>	27272704
<b>ECLASS 8.1</b>	27272704
<b>ECLASS 9.0</b>	27272704
<b>ECLASS 10.0</b>	27272704
<b>ECLASS 11.0</b>	27272704
<b>ECLASS 12.0</b>	27272704
<b>ETIM 5.0</b>	EC002549
<b>ETIM 6.0</b>	EC002549
<b>ETIM 7.0</b>	EC002549
<b>ETIM 8.0</b>	EC002549
<b>UNSPSC 16.0901</b>	46171620

Dimensional drawing



Dimensions in mm (inch)

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)
1,200 (47.24)	1,287 (50.67)	1,316 (51.81)

Length of the monitored area S	L1	L2
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)

### Recommended accessories

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

	Brief description	Type	part no.
<b>Commissioning aids and test equipment</b>			
	<ul style="list-style-type: none"> <li><b>Product:</b> Alignment aids</li> <li><b>Dimensions (W x H x L):</b> 19 mm 67.3 mm 66.9 mm</li> <li><b>Description:</b> Laser alignment aid for various sensors, laser class 2 (IEC 60825). Do not look into the beam!</li> </ul>	AR60	1015741
	<ul style="list-style-type: none"> <li><b>Product:</b> Alignment aids</li> <li><b>Description:</b> Adapter AR60 for M4000 and M4000 Curtain</li> </ul>	AR60 adapter, M4000	4040006
<b>Mounting systems</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting kit 1, mounting bracket, rigid, L-shaped, including fixing screws and washers</li> <li><b>Packing unit:</b> 4 pieces</li> <li><b>Suitable for:</b> All protective field heights</li> </ul>	BEF-3WNGBAST4	7021352
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting kit 12, rotatable, swivel mount</li> <li><b>Packing unit:</b> 4 pieces</li> <li><b>Suitable for:</b> All protective field heights</li> </ul>	BEF-2SMGEAKU4	2030510
	<ul style="list-style-type: none"> <li><b>Description:</b> 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.</li> <li><b>Packing unit:</b> 2 pieces</li> <li><b>Items supplied:</b> Includes mounting bracket</li> </ul>	BEF-3HHOCAST2	2041661
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting kit 6, side bracket, rotatable</li> <li><b>Material:</b> Zinc diecast</li> <li><b>Details:</b> Zinc diecast</li> <li><b>Packing unit:</b> 4 pieces</li> <li><b>Suitable for:</b> All protective field heights</li> </ul>	BEF-1SHABAZN4	2019506

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M26, 12-pin, straight, A-coded</li> <li>• <b>Description:</b> Unshielded</li> <li>• <b>Connection systems:</b> Crimp contacts</li> <li>• <b>Permitted cross-section:</b> 0.5 mm<sup>2</sup> ... 1.5 mm<sup>2</sup></li> <li>• <b>Note:</b> 12 crimping contacts enclosed</li> </ul>	DOS-0612G000GA3KM0	6020757
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M26, 12-pin, angled, A-coded</li> <li>• <b>Description:</b> Unshielded</li> <li>• <b>Connection systems:</b> Crimp contacts</li> <li>• <b>Permitted cross-section:</b> 0.5 mm<sup>2</sup> ... 1.5 mm<sup>2</sup></li> <li>• <b>Note:</b> 12 crimping contacts enclosed</li> </ul>	DOS-0612W000GA3KM0	6020758
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M26, 12-pin, straight</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 20 m, 12-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection systems:</b> Flying leads</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	DOL-0612G20M075KM0	2022549
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M26, 12-pin, straight</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 10 m, 12-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection systems:</b> Flying leads</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	DOL-0612G10M075KM0	2022547
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M26, 12-pin, straight</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, 12-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Connection systems:</b> Flying leads</li> <li>• <b>Application:</b> Uncontaminated zones, Zones with chemicals</li> </ul>	DOL-0612G05M075KM0	2022545

## 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)