



# M40E-63A523RB0

M4000 Advanced Curtain

SAFETY LIGHT CURTAINS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
M40E-63A523RB0	1205303

Other models and accessories → [www.sick.com/M4000\\_Advanced\\_Curtain](http://www.sick.com/M4000_Advanced_Curtain)



### Detailed technical data

#### Features

<b>System part</b>	Receiver
<b>Resolution</b>	14 mm
<b>Protective field height</b>	750 mm
<b>Scanning range</b>	0 m ... 8 m
<b>Response time</b>	
Without beam coding	≤ 11 ms
With beam coding	≤ 17 ms
<b>Synchronization</b>	Optical synchronisation

#### Safety-related parameters

<b>Type</b>	Type 4 (IEC 61496)
<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>	$2.8 \times 10^{-8}$ (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>	✓	Activated
<b>External device monitoring (EDM)</b>	✓	Activated
<b>Beam coding</b>	✓	Uncoded
<b>Configurable application diagnostic output</b>	✓	Contamination (OWS)
<b>Configurable scanning range</b>	✓	≤ 2.5 m
<b>Safe SICK device communication via EFI</b>	✓	

## Interfaces

<b>System connection</b>	
Connection type	Hirschmann male connector M26, 12-pin
Permitted cable length	$\leq 50 \text{ m}$ <sup>1)</sup>
Permitted cross-section	$\geq 0.75 \text{ mm}^2$
<b>Extension connection</b>	
Connection type	Male connector M12, 5-pin
<b>Configuration connection</b>	
Connection type	Female connector M8, 4-pin
Configuration method	PC with CDS (Configuration and Diagnostic Software)
<b>Display elements</b>	
7-segment display	
<b>Status display</b>	
LEDs	
<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 (EN 50178)
<b>Supply voltage <math>V_s</math></b>	24 V (19.2 V ... 28.8 V) <sup>1)</sup>
<b>Residual ripple</b>	$\leq 10 \%$
<b>Power consumption</b>	$\leq 0.6 \text{ A}$ <sup>2)</sup>
<b>Safety outputs (OSSD)</b>	
Type of output	2 PNP semiconductors, short-circuit protected, cross-circuit monitored <sup>3)</sup>
Switching voltage HIGH	24 V DC (UV - 2,25 V ... UV)
Switching voltage LOW	2 V DC
Switching current	0 mA ... 500 mA
<b>Diagnostic outputs</b>	
Switching voltage HIGH	UV - 4,2 V ... UV
Switching voltage LOW	High resistance
Switching current	0 mA ... 100 mA

<sup>1)</sup> The external voltage supply of the devices must be capable of buffering brief mains voltage failures of 20 ms as specified in EN 602041. Suitable power supplies are available as accessories from SICK.

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

<sup>3)</sup> Applies to the voltage range between -30 V and +30 V.

## Mechanical data

<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

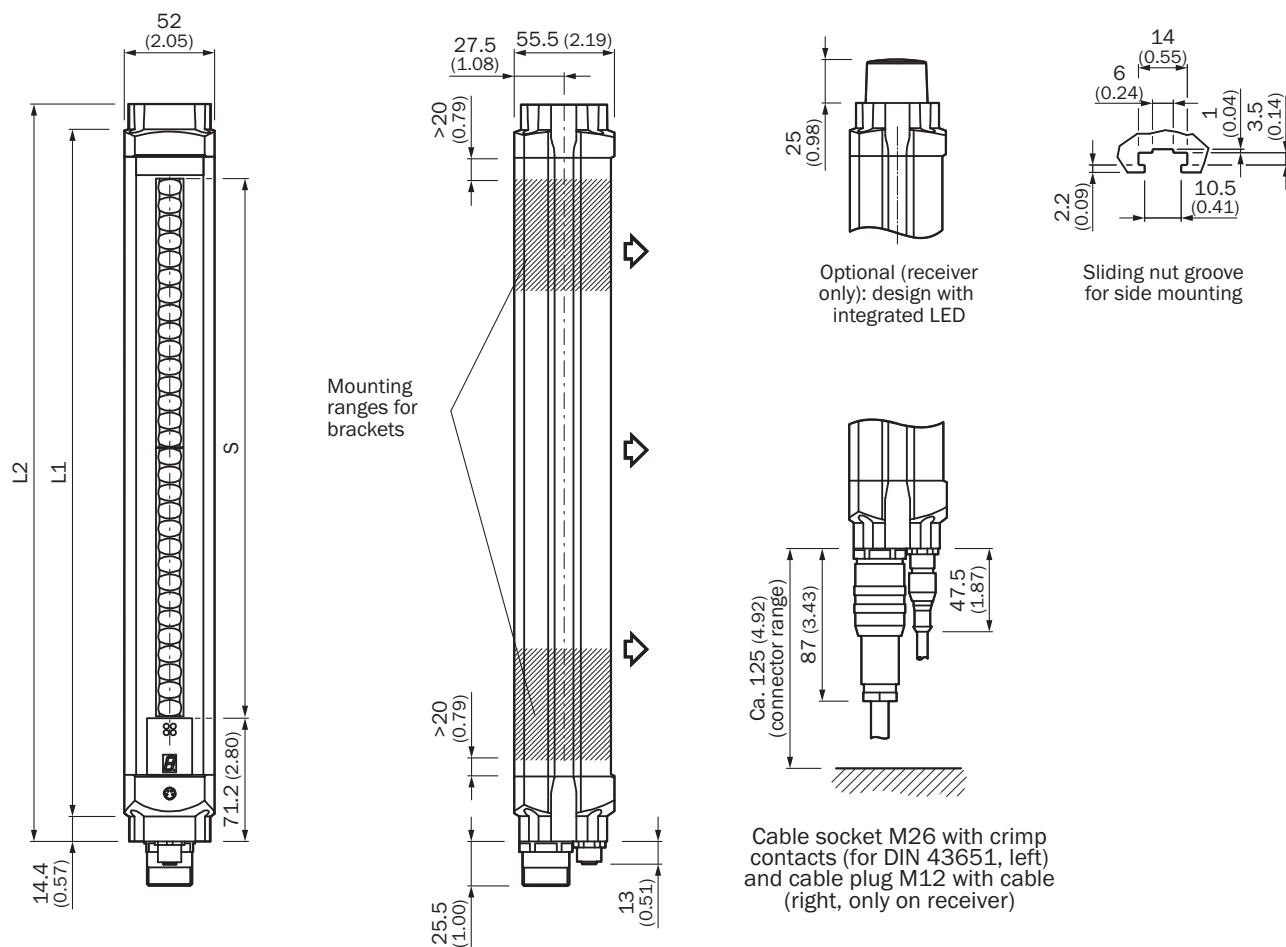
### Ambient data

<b>Enclosure rating</b>	IP65 (EN 60529)
<b>Ambient operating temperature</b>	-30 °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 (EN 60068-2-29)

### Classifications

<b>ECl@ss 5.0</b>	27272704
<b>ECl@ss 5.1.4</b>	27272704
<b>ECl@ss 6.0</b>	27272704
<b>ECl@ss 6.2</b>	27272704
<b>ECl@ss 7.0</b>	27272704
<b>ECl@ss 8.0</b>	27272704
<b>ECl@ss 8.1</b>	27272704
<b>ECl@ss 9.0</b>	27272704
<b>ETIM 5.0</b>	EC002549
<b>ETIM 6.0</b>	EC002549
<b>UNSPSC 16.0901</b>	46171620

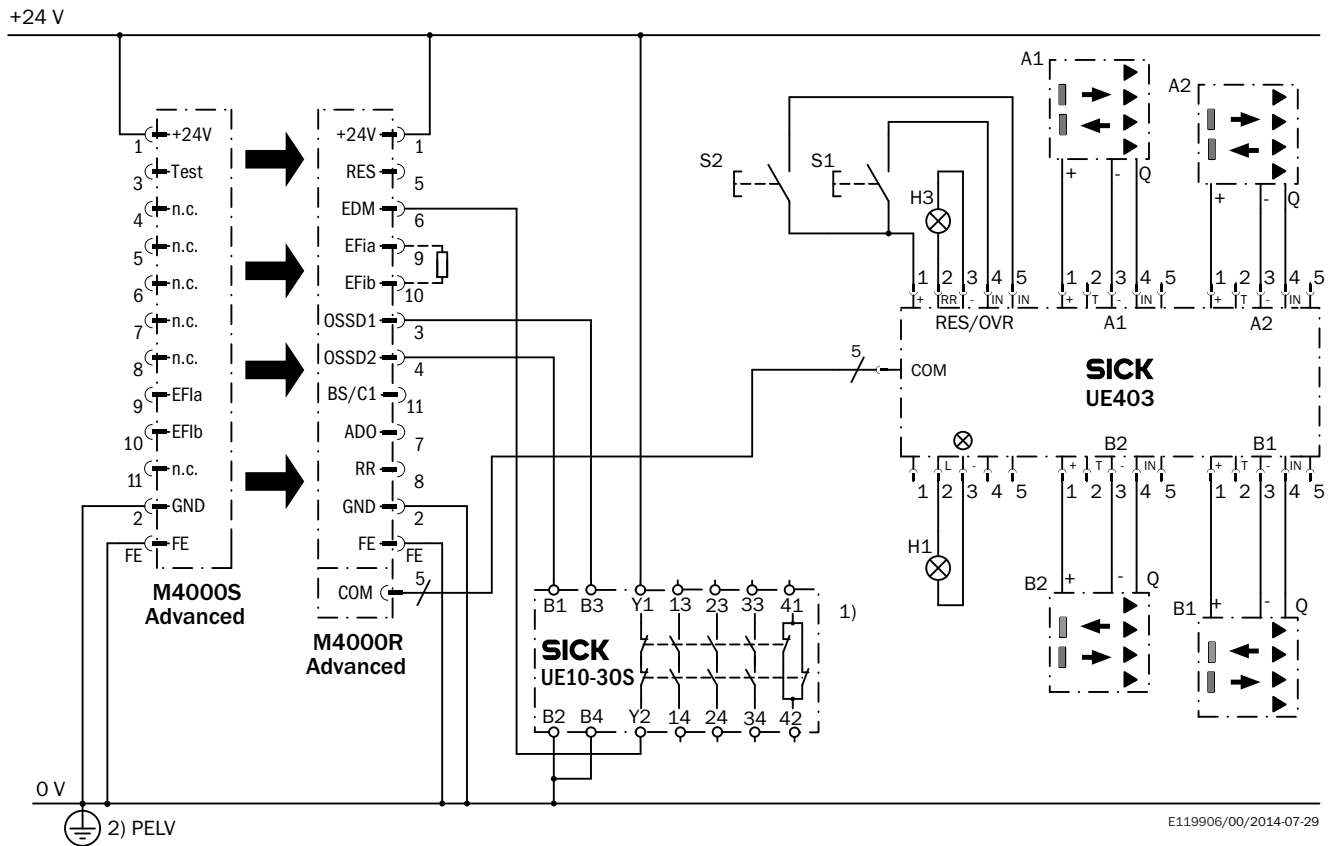
### Dimensional drawing (Dimensions in mm (inch))



Protective field height 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)
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 Advanced with UE403 muting switching device to UE10-30S safety relay



E119906/00/2014-07-29

### Recommended accessories

Other models and accessories → [www.sick.com/M4000\\_Advanced\\_Curtain](http://www.sick.com/M4000_Advanced_Curtain)

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>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>Switching amplifiers</b>			
	UE403 muting switching amplifier	UE403-A0930	1026287
<b>Plug connectors and cables</b>			
	Head A: female connector, M26, 12-pin, straight Head B: open cable ends Cable: PVC, unshielded, 5 m Without EFI: Pin 9 and 10 not connected	DOL-0610G05M075KM1	2046888
	Head A: female connector, M26, 12-pin, straight Head B: open cable ends Cable: PVC, unshielded, 10 m Without EFI: Pin 9 and 10 not connected	DOL-0610G10M075KM1	2046889
	Head A: female connector, M26, 12-pin, straight Head B: open cable ends Cable: PVC, unshielded, 5 m	DOL-0612G05M075KM0	2022545
	Head A: female connector, M26, 12-pin, straight Head B: open cable ends Cable: PVC, unshielded, 10 m	DOL-0612G10M075KM0	2022547
	Head A: female connector, M26, 12-pin, straight Head B: open cable ends Cable: PVC, unshielded, 15 m	DOL-0612G15M075KM0	2022548
	Head A: female connector, M26, 12-pin, straight Head B: open cable ends Cable: PVC, unshielded, 20 m	DOL-0612G20M075KM0	2022549
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A15-020UB5M2A15	2096009
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: male connector, M12, 5-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 0.6 m	YF2A15-C60UB5M2A15	2096006
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 2 m	DSL-8U04G02M025KM1	6034574
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, straight Cable: PVC, unshielded, 10 m	DSL-8U04G10M025KM1	6034575
	Head A: female connector, M26, 12-pin, straight Cable: unshielded 12 crimping contacts enclosed	DOS-0612G000GA3KM0	6020757
<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)