





### Ordering information

Type	part no.
DME5000-111	1022949

Other models and accessories → [www.sick.com/DME5000](http://www.sick.com/DME5000)



### Detailed technical data

#### Features

<b>Measuring range</b>	0.15 m ... 70 m, on "diamond grade" reflective tape <sup>1)</sup>
<b>Target</b>	Reflector
<b>Resolution</b>	50 µm ... 5,000 µm
<b>Repeatability</b>	0.5 mm <sup>1) 2)</sup>
<b>Measurement accuracy</b>	± 2 mm
<b>Response time</b>	6 ms
<b>Output time</b>	1 ms
<b>Emitted beam</b>	
Light source	Laser, red <sup>3)</sup>
Type of light	Visible red light
Typ. light spot size (distance)	130 mm (at 70 m) 270 mm (at 150 m) 360 mm (at 220 m)
<b>Key laser figures</b>	
Normative reference	IEC 60825-1:2014, EN 60825-1:2014
Laser class	2 <sup>4)</sup>
<b>Max. movement speed</b>	10 m/s
<b>Safety-related parameters</b>	
MTTF <sub>D</sub>	101 years
DC <sub>avg</sub>	0%

<sup>1)</sup> On "diamond grade" reflective tape.

<sup>2)</sup> Statistical error 1 σ, environmental conditions constant, min. warm-up time 10 min.

<sup>3)</sup> Average service life of 50,000 h at T<sub>A</sub> = +25 °C.

<sup>4)</sup> Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

## Interfaces

<b>SSI</b>	✓
<b>Digital output</b>	Number
	Type
	Maximum output current $I_A$
<b>Multifunctional input (MF)</b>	1 x MF <sup>3) 4)</sup>

<sup>1)</sup> Max. 100 nF/20 mA.

<sup>2)</sup> HIGH =  $> V_S - 3 \text{ V}$  / LOW =  $< 2 \text{ V}$ .

<sup>3)</sup> HIGH =  $> 12 \text{ V}$  / LOW =  $< 3 \text{ V}$ .

<sup>4)</sup> Not reverse-polarity protected.

## Electronics

<b>Supply voltage <math>U_B</math></b>	DC 18 V ... 30 V, limit values
<b>Current consumption</b>	At 24 V DC < 250 mA
<b>Ripple</b>	< 5 V <sub>pp</sub> <sup>1)</sup>
<b>Initialization time</b>	1.5 s <sup>2)</sup>
<b>Display</b>	Display
<b>Enclosure rating</b>	IP65
<b>Protection class</b>	II <sup>3)</sup>
<b>Connection type</b>	Male connector

<sup>1)</sup> May not fall short of or exceed  $V_S$  tolerances.

<sup>2)</sup> After loss of reflector < 1 s at max. speed  $V_{max} < 1 \text{ m/s}$ .

<sup>3)</sup> Reference voltage DC 32 V.

## Mechanics

<b>Dimensions (W x H x D)</b>	61 mm x 101 mm x 176 mm
<b>Housing material</b>	Metal (zinc diecast)
<b>Window material</b>	Glass
<b>Weight</b>	Approx. 1,650 g

## Ambient data

<b>Ambient temperature, operation</b>	-10 °C ... +55 °C -10 °C ... +75 °C, operation with cooling case
<b>Ambient temperature, storage</b>	-25 °C ... +75 °C
<b>Effect of air pressure</b>	0.3 ppm/hPa
<b>Effect of air temperature</b>	1 ppm/K
<b>Temperature drift</b>	Typ. 0.1 mm/K
<b>Typ. Ambient light immunity</b>	≤ 40,000 lx
<b>Mechanical load</b>	Shock: (EN 600 68-2-27 / -2-29) Sine: (EN 600 68-2-6) Noise: (EN 600 68-2-64)
<b>Electromagnetic compatibility (EMC)</b>	EN 61000-6-2, EN 55011

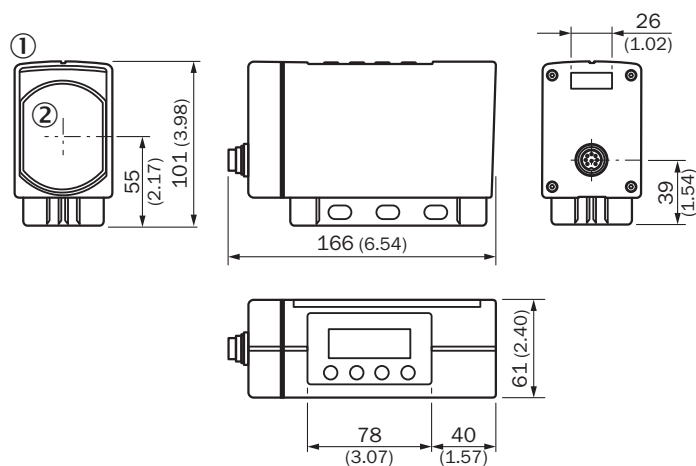
### Certificates

<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>	✓

### Classifications

<b>ECLASS 5.0</b>	27270801
<b>ECLASS 5.1.4</b>	27270801
<b>ECLASS 6.0</b>	27270801
<b>ECLASS 6.2</b>	27270801
<b>ECLASS 7.0</b>	27270801
<b>ECLASS 8.0</b>	27270801
<b>ECLASS 8.1</b>	27270801
<b>ECLASS 9.0</b>	27270801
<b>ECLASS 10.0</b>	27270801
<b>ECLASS 11.0</b>	27270801
<b>ECLASS 12.0</b>	27270916
<b>ETIM 5.0</b>	EC001825
<b>ETIM 6.0</b>	EC001825
<b>ETIM 7.0</b>	EC001825
<b>ETIM 8.0</b>	EC001825
<b>UNSPSC 16.0901</b>	41111613

### Dimensional drawing DME5000 SSI



Dimensions in mm (inch)

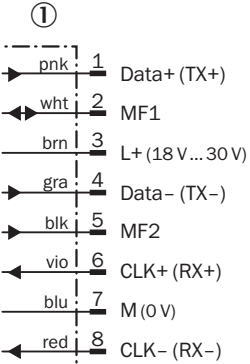
① LC display

② Center of optical axis

Connection type DME4/5xxx SSI/RS-422 Connector M16, 8-pin

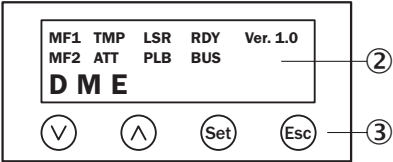


Connection diagram



① Connector M16, 8-pin

Adjustment possible



② LC display  
 ③ Keypad

### Working range diagram DL1000 measuring range based on measurement cycle time and reflector type








### Recommended accessories

Other models and accessories → [www.sick.com/DME5000](http://www.sick.com/DME5000)

	Brief description	Type	part no.
<b>Mounting systems</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Alignment unit for DME5000, stainless steel (1.4541), incl. mounting material, additional base plate mounting kit required</li> <li><b>Items supplied:</b> Mounting hardware included</li> </ul>	BEF-AH-DME	2027721
<b>reflectors and optics</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Reflector plate, "diamond grade" reflective tape, 665 mm x 665 mm, base plate material: aluminum, screw connection</li> <li><b>Ambient operating temperature:</b> -25 °C ... +65 °C</li> </ul>	PL560DG	1016806

	Brief description	Type	part no.
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Power, CAN</li> <li><b>Cable:</b> 5 m, 5-wire</li> <li><b>Description:</b> Power, unshielded, CAN</li> </ul>	DOL-1205-G05M_Can	6021166
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Fieldbus, CANopen, DeviceNet™</li> <li><b>Cable:</b> 10 m, 5-wire, PUR, halogen-free</li> <li><b>Description:</b> Fieldbus, shielded, CANopen, DeviceNet™</li> <li><b>Connection systems:</b> Flying leads</li> <li><b>Note:</b> Shielded on pin 1</li> </ul>	YF2A14-100C1BXLEAX	6021175
	<ul style="list-style-type: none"> <li><b>Description:</b> Shielded</li> <li><b>Connection type head A:</b> Female connector, M12, 8-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 2 m, 8-wire, PUR, halogen-free</li> <li><b>Connection systems:</b> Flying leads</li> <li><b>Application:</b> Zones with oils and lubricants</li> </ul>	YF2A68-020XXXXLEAX	6032448
	<ul style="list-style-type: none"> <li><b>Description:</b> Shielded</li> <li><b>Connection type head A:</b> Female connector, M12, 8-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 5 m, 8-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul>	YF2A68-050XXXXLEAX	6032449
	<ul style="list-style-type: none"> <li><b>Description:</b> Shielded</li> <li><b>Connection type head A:</b> Female connector, M12, 8-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 10 m, 8-wire, PUR, halogen-free</li> <li><b>Application:</b> Drag chain operation, Zones with oils and lubricants</li> </ul>	YF2A68-100XXXXLEAX	6032450
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, B-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> PROFIBUS DP</li> <li><b>Cable:</b> 10 m, 2-wire, PUR, halogen-free</li> <li><b>Description:</b> PROFIBUS DP, twisted pair, shielded</li> <li><b>Connection systems:</b> Flying leads</li> <li><b>Application:</b> Zones with oils and lubricants</li> </ul>	DOL-1205-G10MQ	6026008
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, B-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> PROFIBUS DP</li> <li><b>Cable:</b> 5 m, 2-wire, PUR, halogen-free</li> <li><b>Description:</b> PROFIBUS DP, twisted pair, shielded</li> <li><b>Connection systems:</b> Flying leads</li> <li><b>Application:</b> Zones with oils and lubricants</li> </ul>	DOL-1205-G05MQ	6026006
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 4-pin, straight, B-coded</li> <li><b>Signal type:</b> PROFIBUS DP</li> <li><b>Description:</b> PROFIBUS DP, terminal resistor</li> </ul>	STE-END-Q	6021156
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight, B-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> PROFIBUS DP</li> <li><b>Cable:</b> 15 m, 2-wire, PUR, halogen-free</li> <li><b>Description:</b> PROFIBUS DP, twisted pair, shielded</li> <li><b>Connection systems:</b> Flying leads</li> <li><b>Application:</b> Zones with oils and lubricants</li> </ul>	DOL-1205-G15MQ	6032637
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 5-pin, straight, B-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> PROFIBUS DP</li> <li><b>Cable:</b> 5 m, 2-wire, PUR, halogen-free</li> <li><b>Description:</b> PROFIBUS DP, twisted pair, shielded</li> <li><b>Note:</b> Wire shield Al-Pt film, overall shield C-screen tin-plated</li> <li><b>Application:</b> Zones with oils and lubricants, Drag chain operation</li> </ul>	STL-1205-G05MQ	6026005
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Male connector, M12, 5-pin, straight, B-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> PROFIBUS DP</li> <li><b>Cable:</b> 10 m, 2-wire, PUR, halogen-free</li> <li><b>Description:</b> PROFIBUS DP, twisted pair, shielded</li> <li><b>Note:</b> Wire shield Al-Pt film, overall shield C-screen tin-plated</li> </ul>	STL-1205-G10MQ	6026007

	Brief description	Type	part no.
	<ul style="list-style-type: none"> <li><b>Application:</b> Zones with oils and lubricants, Drag chain operation</li> <li><b>Connection type head A:</b> Male connector, M12, 5-pin, straight, B-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> PROFIBUS DP</li> <li><b>Cable:</b> 15 m, 2-wire, PUR, halogen-free</li> <li><b>Description:</b> PROFIBUS DP, twisted pair, shielded</li> <li><b>Application:</b> Zones with oils and lubricants, Drag chain operation</li> </ul>	STL-1205-G15MQ	6036898
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 5-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> CANopen</li> <li><b>Cable:</b> 6 m</li> <li><b>Description:</b> CANopen, shielded</li> </ul>	DOL-1205-G06MK	6028326
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, 7/8", 5-pin, straight</li> <li><b>Signal type:</b> DeviceNet™, CANopen</li> <li><b>Description:</b> DeviceNet™, terminal resistor, shielded, CANopen</li> <li><b>Permitted cross-section:</b> ≤ 1.5 mm²</li> <li><b>Note:</b> For field bus technology</li> </ul>	DOS-7805-GKEND	6028329
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M16, 8-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 5 m, PUR, halogen-free</li> <li><b>Description:</b> Shielded</li> </ul>	YF2Z18-050XXXLE-BX	2026742
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M16, 8-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Cable:</b> 10 m, PUR, halogen-free</li> <li><b>Description:</b> Shielded</li> </ul>	YF2Z18-100XXXLE-BX	2027193

## 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.

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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.”

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