



DATA SHEET

DME4000-111S05

DME4000
Time-of-flight sensors

SICK

Sensor Intelligence



TIME-OF-FLIGHT SENSORS

DME4000-111S05

ORDERING INFORMATION

Type	part no.
DME4000-111S05	1045159

Further device versions and accessories at www.sick.com/DME4000



DETAILED TECHNICAL DATA

FEATURES

Measuring range	0.15 m ... 50 m, on “diamond grade” reflective tape
Target	Reflector
Repeatability	≤ 1 mm ^{1) 2)}
Measurement accuracy	± 3 mm
Response time	6 ms
Output time	1 ms
Emitted beam	
Light source	Laser, red ³⁾
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)
Key laser figures	
Normative reference	IEC 60825-1:2014, EN 60825-1:2014
Laser class	2 ⁴⁾
Note	With mounting adapter for DME5000 bracket
Max. movement speed	10 m/s

¹⁾ On “diamond grade” reflective tape.

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

³⁾ Average service life of 50,000 h at T_a = +25 °C.

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

INTERFACES

SSI	✓
Digital output	
Number	2
Type	Push-pull: PNP/NPN
Maximum output current I_A	$\leq 100 \text{ mA}$ ^{1) 2)}
Multifunctional input (MF)	1 x MF ^{3) 4)}

¹⁾ Max. 100 nF/20 mH.

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

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

⁴⁾ Not reverse-polarity protected.

ELECTRONICS

Supply voltage U_S	DC 18 V ... 30 V, limit values
Current consumption	At 24 V DC $< 250 \text{ mA}$
Ripple	$< 5 \text{ V}_{pp}$ ¹⁾
Initialization time	1.5 s ²⁾
Display	Display
Enclosure rating	IP65
Protection class	II ³⁾
Connection type	Male connector, M16, 8-pin

¹⁾ May not fall short of or exceed V_S tolerances.

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

³⁾ Reference voltage DC 32 V.

MECHANICS

Dimensions (W x H x D)	61 mm x 85 mm x 166 mm
Housing material	Metal (zinc diecast)
Window material	Glass
Weight	Approx. 1,650 g

AMBIENT DATA

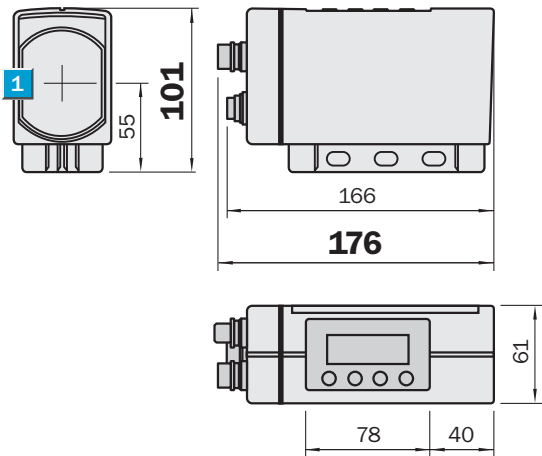
Ambient temperature, operation	-10 °C ... +55 °C -10 °C ... +75 °C, operation with cooling case
Ambient temperature, storage	-25 °C ... +75 °C
Effect of air pressure	0.3 ppm/hPa
Effect of air temperature	1 ppm/K
Temperature drift	Typ. 0.1 mm/K
Typ. Ambient light immunity	$\leq 40,000 \text{ lx}$
Mechanical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

CERTIFICATES

EU declaration of conformity	✓
------------------------------	---

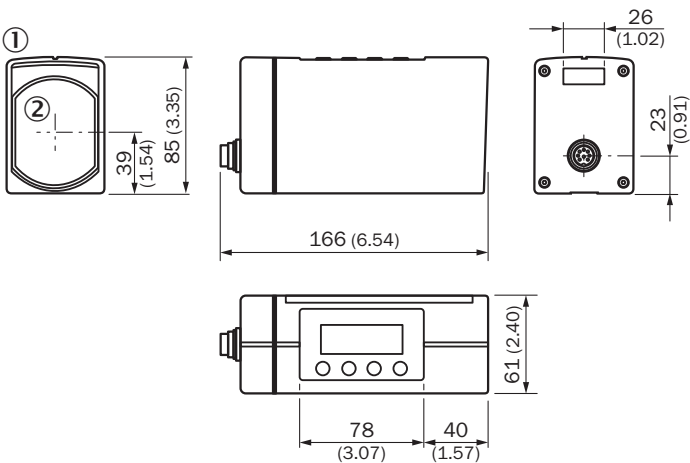
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
Optical radiation safety (GB 44703:2024) declaration of manufacturer (low risk)	✓

DIMENSIONAL DRAWING

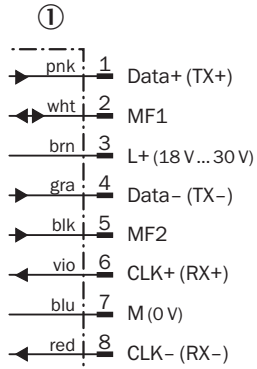


Dimensions in mm (inch)
① Center of optical axis

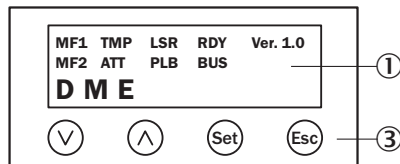
DIMENSIONAL DRAWING DME4000 SSI



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

① LC display

③ Keypad

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1045159



SICK AG
WALDKIRCH
GERMANY
SICK.COM

SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

SICK
Sensor Intelligence