



DME4000-219S04

DME4000

TIME-OF-FLIGHT SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | part no. |
|----------------|----------|
| DME4000-219S04 | 1045253 |

Other models and accessories → www.sick.com/DME4000



Detailed technical data

Features

| | |
|--|--|
| Measuring range | 0.15 m ... 130 m, on "diamond grade" reflective tape |
| Target | Reflector |
| Repeatability | 2 mm ¹⁾ ²⁾ |
| Measurement accuracy | ± 5 mm |
| Response time | 6 ms |
| Output time | 4 ms |
| Light source | Laser, red ³⁾ visible red light |
| Type of light | Visible red light |
| Laser class | 2, complies with 21 CFR 1040.10 and 1040.11 except for the conformance according to "Laser Notice No. 50" from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014) |
| Typ. light spot size (distance) | 130 mm (at 70 m) 270 mm (at 150 m) 360 mm (at 220 m) |
| Note | CANopen with separate connector |
| 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.

Interfaces

| | |
|-----------------------|--------------------|
| CANopen | ✓ |
| Digital output | |
| Number | 2 |
| Type | Push-pull: PNP/NPN |

¹⁾ Max. 100 nF/20 mH.

²⁾ HIGH = > V_S - 3 V / LOW = < 2 V.

| | |
|------------------------------|---|
| Maximum output current I_A | $\leq 100 \text{ mA}$ ¹⁾ ₂₎ |
|------------------------------|---|

¹⁾ Max. 100 nF/20 mH.

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

Electronics

| | |
|--|---|
| Supply voltage U_B | DC 18 V ... 30 V, limit values |
| Current consumption | At 24 V DC $< 250 \text{ mA}$ |
| Ripple | $< 5 \text{ V}_{\text{pp}}$ ¹⁾ |
| Indication | Display |
| Enclosure rating | IP65 |
| Protection class | II ²⁾ |

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

²⁾ 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 |
| Connection type | Male connector, M12, 5-pin |

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

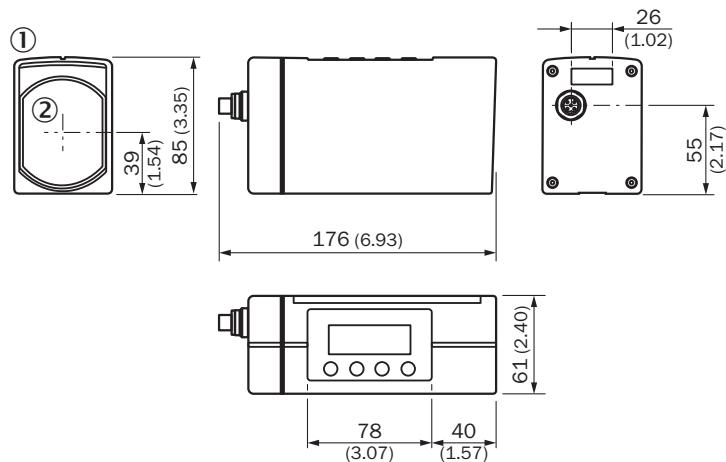
| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China-RoHS | ✓ |

Classifications

| | |
|---------------------|----------|
| ECLASS 5.0 | 27270801 |
| ECLASS 5.1.4 | 27270801 |
| ECLASS 6.0 | 27270801 |

| | |
|-----------------------|----------|
| ECLASS 6.2 | 27270801 |
| ECLASS 7.0 | 27270801 |
| ECLASS 8.0 | 27270801 |
| ECLASS 8.1 | 27270801 |
| ECLASS 9.0 | 27270801 |
| ECLASS 10.0 | 27270801 |
| ECLASS 11.0 | 27270801 |
| ECLASS 12.0 | 27270916 |
| ETIM 5.0 | EC001825 |
| ETIM 6.0 | EC001825 |
| ETIM 7.0 | EC001825 |
| ETIM 8.0 | EC001825 |
| UNSPSC 16.0901 | 41111613 |

Dimensional drawing DME4000 CANopen



Dimensions in mm (inch)

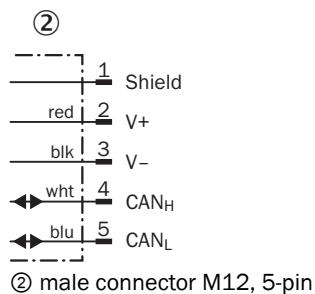
① LC display

② Center of optical axis

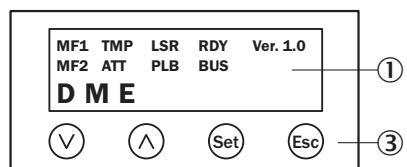
Connection type DME4000 CANopen Connector M12, 5-pin



Connection diagram



Adjustment possible



① LC display
③ Keypad

Recommended accessories

Other models and accessories → www.sick.com/DME4000

| | Brief description | Type | part no. |
|---|--|---------------------------|----------|
| Mounting systems | | | |
|  | <ul style="list-style-type: none">Description: Alignment unitMaterial: Stainless steelDetails: Stainless steel | BEF-DME alignment bracket | 2040695 |
| reflectors and optics | | | |
|  | <ul style="list-style-type: none">Description: Reflector plate, "diamond grade" reflective tape, 665 mm x 665 mm, base plate material: aluminum, screw connectionAmbient operating temperature: -25 °C ... +65 °C | PL560DG | 1016806 |

| | Brief description | Type | part no. |
|---|---|--------------------|----------|
| connectors and cables | | | |
|  | <ul style="list-style-type: none"> Connection type head A: Male connector, M12, 5-pin, straight, B-coded Connection type head B: Flying leads Signal type: PROFIBUS DP Cable: 15 m, 2-wire, PUR, halogen-free Description: PROFIBUS DP, twisted pair, shielded Application: Zones with oils and lubricants, Drag chain operation | STL-1205-G15MQ | 6036898 |
|  | <ul style="list-style-type: none"> Connection type head A: Male connector, M12, 5-pin, straight, B-coded Connection type head B: Flying leads Signal type: PROFIBUS DP Cable: 10 m, 2-wire, PUR, halogen-free Description: PROFIBUS DP, twisted pair, shielded Note: Wire shield Al-Pt film, overall shield C-screen tin-plated Application: Zones with oils and lubricants, Drag chain operation | STL-1205-G10MQ | 6026007 |
|  | <ul style="list-style-type: none"> Connection type head A: Male connector, M12, 4-pin, straight, B-coded Signal type: PROFIBUS DP Description: PROFIBUS DP, terminal resistor | STE-END-Q | 6021156 |
|  | <ul style="list-style-type: none"> Connection type head A: Male connector, M12, 5-pin, straight, B-coded Connection type head B: Flying leads Signal type: PROFIBUS DP Cable: 5 m, 2-wire, PUR, halogen-free Description: PROFIBUS DP, twisted pair, shielded Note: Wire shield Al-Pt film, overall shield C-screen tin-plated Application: Zones with oils and lubricants, Drag chain operation | STL-1205-G05MQ | 6026005 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight Connection type head B: Flying leads Signal type: CANopen Cable: 6 m Description: CANopen, shielded | DOL-1205-G06MK | 6028326 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, 7/8", 5-pin, straight Signal type: DeviceNet™, CANopen Description: DeviceNet™, terminal resistor, shieldedCANopen Permitted cross-section: ≤ 1.5 mm² Note: For field bus technology | DOS-7805-GKEND | 6028329 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, B-coded Connection type head B: Flying leads Signal type: PROFIBUS DP Cable: 15 m, 2-wire, PUR, halogen-free Description: PROFIBUS DP, twisted pair, shielded Connection systems: Flying leads Application: Zones with oils and lubricants | DOL-1205-G15MQ | 6032637 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, B-coded Connection type head B: Flying leads Signal type: PROFIBUS DP Cable: 10 m, 2-wire, PUR, halogen-free Description: PROFIBUS DP, twisted pair, shielded Connection systems: Flying leads Application: Zones with oils and lubricants | DOL-1205-G10MQ | 6026008 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight, B-coded Connection type head B: Flying leads Signal type: PROFIBUS DP Cable: 5 m, 2-wire, PUR, halogen-free Description: PROFIBUS DP, twisted pair, shielded Connection systems: Flying leads Application: Zones with oils and lubricants | DOL-1205-G05MQ | 6026006 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 8-pin, straight Connection type head B: Flying leads Cable: 10 m, 8-wire, PUR, halogen-free Description: Shielded | YF2A68-100XXXXLEAX | 6032450 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 8-pin, straight Connection type head B: Flying leads Cable: 5 m, 8-wire, PUR, halogen-free | YF2A68-050XXXXLEAX | 6032449 |

| | Brief description | Type | part no. |
|---|---|---------------------|-----------------|
|  | <ul style="list-style-type: none">Description: ShieldedConnection type head A: Female connector, M12, 8-pin, straightConnection type head B: Flying leadsCable: 2 m, 8-wire, PUR, halogen-freeDescription: ShieldedConnection systems: Flying leads | YF2A68-020XXXXLEAX | 6032448 |
|  | <ul style="list-style-type: none">Connection type head A: Female connector, M12, 5-pin, A-codedConnection type head B: Flying leadsSignal type: Power, CANCable: 5 m, 5-wireDescription: Power, unshieldedCAN | DOL-1205-G05M_Can | 6021166 |
|  | <ul style="list-style-type: none">Connection type head A: Female connector, M16, 8-pin, straightConnection type head B: Flying leadsCable: 10 m, PUR, halogen-freeDescription: Shielded | YF2Z18-100XXXXLE-BX | 2027193 |
|  | <ul style="list-style-type: none">Connection type head A: Female connector, M16, 8-pin, straightConnection type head B: Flying leadsCable: 5 m, PUR, halogen-freeDescription: Shielded | YF2Z18-050XXXXLE-BX | 2026742 |
|  | <ul style="list-style-type: none">Connection type head A: Female connector, M12, 5-pin, straight, A-codedConnection type head B: Flying leadsSignal type: Fieldbus, CANopen, DeviceNet™Cable: 10 m, 5-wire, PUR, halogen-freeDescription: Fieldbus, shieldedCANopenDeviceNet™Connection systems: Flying leadsNote: Shielded on pin 1 | YF2A14-100C1BXLEAX | 6021175 |

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.

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