



## Long range distance sensors DME4000, DeviceNet

DME4000-315S02



**Model Name** > [DME4000-315S02](#)  
**Part No.** > [1042734](#)

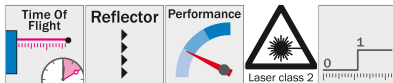


**At a glance**

- Multiple measurement and positioning options from 0.15 m to 220 m
- High-speed output rate
- Very high resolution, repeatability and accuracy
- Illuminated LC display with measured value output and setup diagnostic information
- Visible red light and bracket with springs for alignment
- Variety of interfaces: SSI, RS-422, PROFIBUS, HIPERFACE, CANopen, DeviceNet

**Your benefits**

- Fast measurement cycles offer optimized integration into control loops for increased productivity
- Red laser light as well as adjustable mounting brackets (optional accessory) enable fast and easy alignment, ensuring on-time and cost-effective installation
- Multi-point self checks provide maintenance and replacement warnings increasing overall machine availability
- A tough metal housing as well as heating and cooling accessories ensure reliability in rough ambient conditions
- User-friendly display with easy-to-use menu along with external PC/PLC programming offers fast and cost-efficient setup
- Multiple serial interfaces provide high-speed position output to the controller and high flexibility in application integration
- Integrated speed monitoring offers additional information for increased process reliability



**Performance**

Measurement range:	0.15 m ... 220 m, on reflective tape "Diamond Grade"
Repeatability <sup>1), 2)</sup> :	3 mm
Accuracy:	± 6 mm
Light source <sup>3)</sup> :	Laser, red
Typ. light spot size (distance):	130 mm (at 70 m) 270 mm (at 150 m) 360 mm (at 220 m)
Output rate:	2 ms
Note:	With mounting adapter for DME5000 bracket
Max. movement speed:	10 m/s
Laser class:	2 (EN 60825-1/CDRH)

1) On reflective tape "Diamond Grade" 2) Statistical error  $1\sigma$ , environmental conditions constant, min. warm-up time 10 min 3) Average service life of 50,000 h at  $T_A = +25\text{ }^\circ\text{C}$

## Interfaces

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Data interface: DeviceNet  
Output type <sup>1)</sup>: Push-pull: PNP/NPN (100 mA)  
Multifunctional input (MF) <sup>2)</sup>, <sup>3)</sup>: 1 x MF

<sup>1)</sup> HIGH >  $V_S - 3\text{ V}$  / LOW < 2 V <sup>2)</sup> HIGH = > 12 V / LOW = < 3 V <sup>3)</sup> Not reverse-polarity protected

## Mechanics/electronics

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Supply voltage  $V_S$ : DC 18 V ... 30 V, limit values  
Ripple <sup>1)</sup>: < 5 Vpp  
Indication: Display  
Weight: Ca. 1,650 g  
Output current  $I_A$  <sup>2)</sup>:  $\leq 100\text{ mA}$   
Power consumption: At 24 V DC < 250 mA  
Connection type: Male connector, M12, 5-pin, A-coded

<sup>1)</sup> May not fall short of or exceed  $V_S$  tolerances <sup>2)</sup> Short circuit/overload protected. Max. 100 nF/20 mH

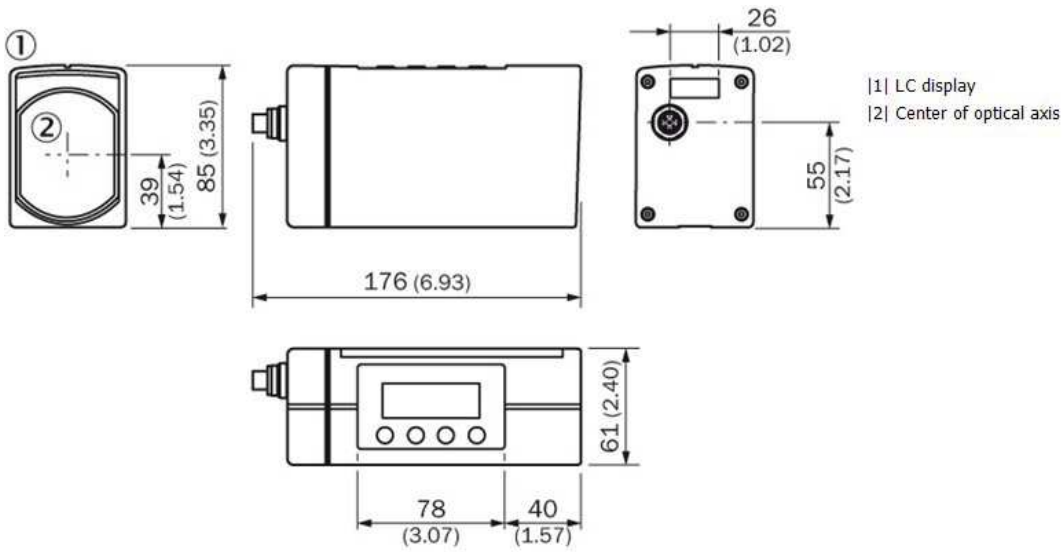
## Ambient data

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Enclosure rating: IP 65  
Protection class <sup>1)</sup>: II  
Effect of air pressure: 0.3 ppm/hPa  
Effect of air temperature: 1 ppm/K  
Temperature drift: Typ. 0.1 mm/K  
Ambient temperature: Operation: -10 ... 55 °C  
Operation with cooling case: -10 ... 75 °C  
Storage: -25 ... 75 °C  
Mechanical load: Noise: EN 600 68-2-64  
Shock: EN 600 68-2-27 / -2-29  
Sine: EN 600 68-2-6  
Electromagnetic compatibility (EMC): EN 61000-6-2, EN 55011: Class B

<sup>1)</sup> Reference voltage DC 32 V

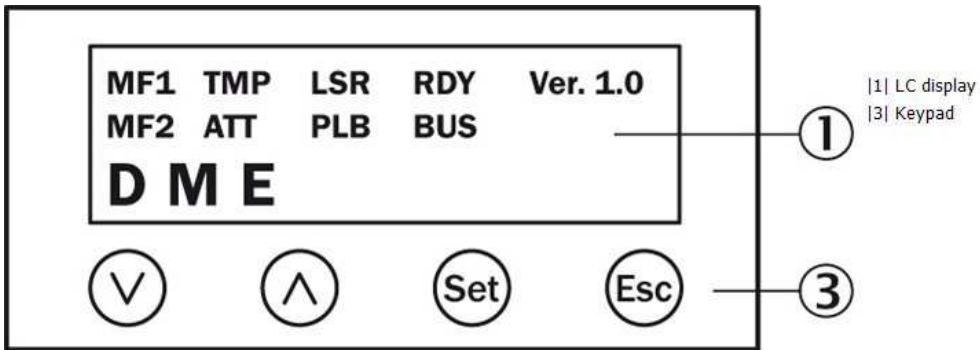
## Dimensional drawing



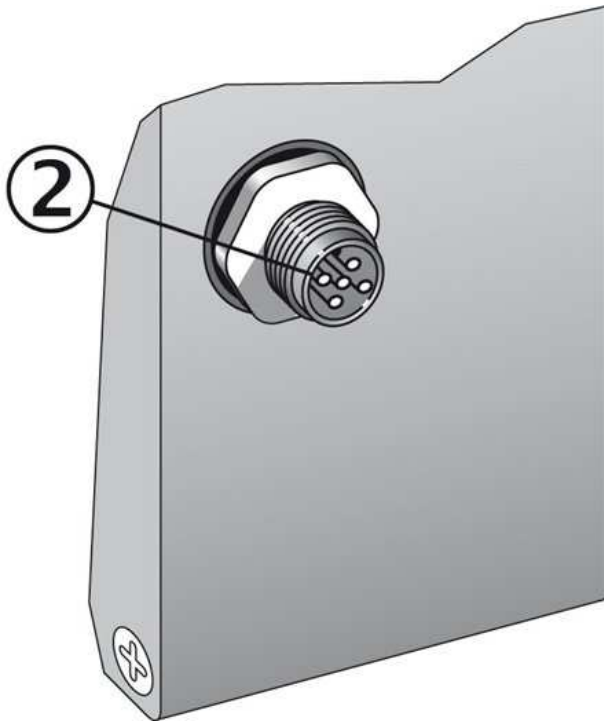
|1| LC display  
|2| Center of optical axis

All dimensions in mm (inch)

## Adjustments

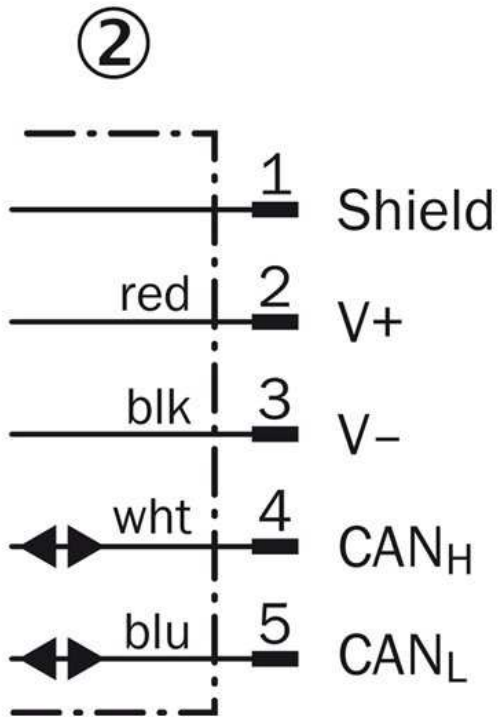


Connection type



[2] Connector M12, 5-pin, A-coded

Connection diagram



[2] Connector M12, 5-pin, A-coded

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