



Long range distance sensors DME5000, SSI

DME5000-321



Model Name > [DME5000-321](#)
Part No. > [1025246](#)

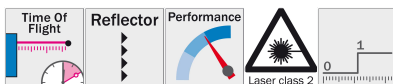


At a glance

- Measurement range from 0.15 m to 300 m
- Very fast measurement cycles
- Highest accuracy, repeatability and system availability
- Illuminated LC display with diagnostic information
- Visible red light and bracket with springs for alignment
- Variety of interfaces: SSI, RS-422, PROFIBUS, HIPERFACE, DeviceNet

Your benefits

- Fastest measurement rate offers 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
- Highest degree of accuracy and repeatability ensures high machine availability



Performance

Measurement range ¹⁾ :	0.15 m ... 300 m, on reflective tape "Diamond Grade"
Resolution:	0.05 mm ... 5 mm
Repeatability ²⁾ , ³⁾ :	2 mm
Accuracy:	± 5 mm
Light source ⁴⁾ :	Laser, red
Typ. light spot size (distance):	130 mm (at 70 m) 270 mm (at 150 m) 360 mm (at 220 m)
Output rate:	1 ms
Max. movement speed:	10 m/s
Laser class:	2 (EN 60825-1/CDRH)

1) 2) On reflective tape "Diamond Grade" 3) Statistical error 1σ , environmental conditions constant, min. warm-up time 10 min 4) Average service life of 50,000 h at $T_A = +25^\circ\text{C}$

Interfaces

Data interface:	SSI
Output type ¹⁾ :	Push-pull: PNP/NPN (100 mA)
Multifunctional input (MF) ^{2), 3)} :	1 x MF

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

Mechanics/electronics

Supply voltage V_S :	DC 18 V ... 30 V, limit values
Ripple ¹⁾ :	$< 5\text{ Vpp}$
Initialization time ²⁾ :	1.5 s
Indication:	Display
Weight:	Ca. 1,650 g
Output current I_A ³⁾ :	$\leq 100\text{ mA}$
Power consumption:	At 24 V DC $< 1,000\text{ mA}$
Connection type:	Male connector, M16, 8-pin

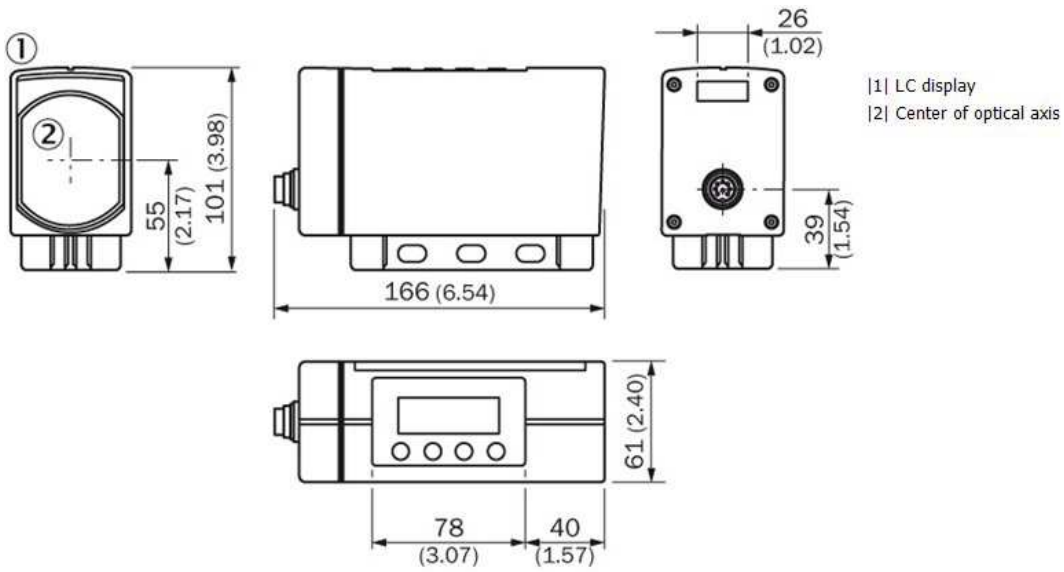
¹⁾ May not fall short of or exceed V_S tolerances ²⁾ After loss of reflector $< 1\text{ s}$ at max. speed $V_{\text{max}} < 1\text{ m/s}$ ³⁾ Short circuit/overload protected. Max. 100 nF/20 mH

Ambient data

Enclosure rating:	IP 65
Protection class ¹⁾ :	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 with heating: $-40 \dots 55^\circ\text{C}$ Operation with cooling case: $-40 \dots 75^\circ\text{C}$ Storage: $-25 \dots 75^\circ\text{C}$
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

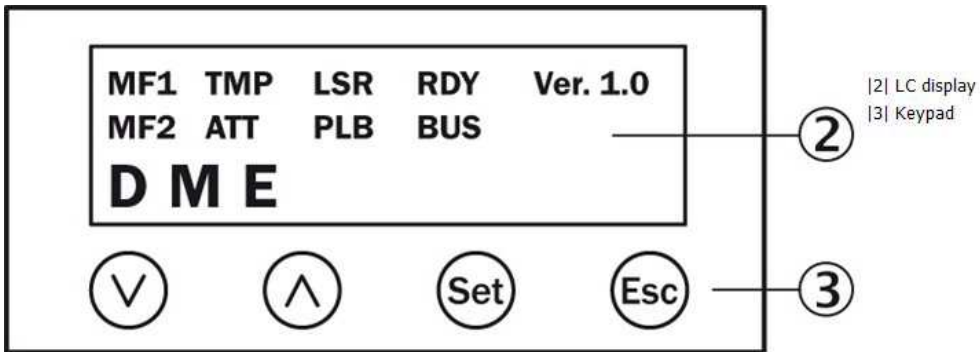
¹⁾ Reference voltage DC 32 V

Dimensional drawing



All dimensions in mm (inch)

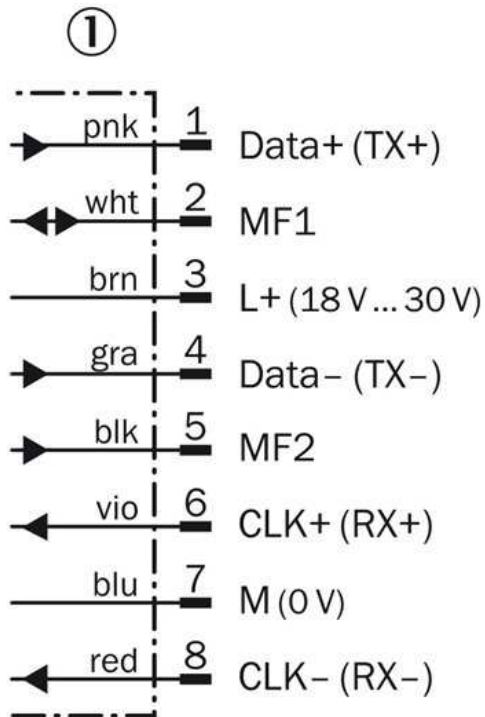
Adjustments



Connection type



Connection diagram



[1] Connector M16, 8-pin

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