DME5000

Most precise distance measurement

LONG RANGE DISTANCE SENSORS

SICK
Sensor Intelligence.

DME5000

LONG RANGE DISTANCE SENSORS

Technical data overview

Measuring range	0.15 m … 300 m, on reflective tape "Diamond Grade" (depending on type)
Repeatability	0.5 mm 1 mm 2 mm
Output time	0.2 ms … 2 ms (depending on type)
Accuracy	± 2 mm ± 3 mm ± 5 mm
Target	Reflector
SSI	✓
PROFIBUS DP	✓
Serial	✓, RS-422
HIPERFACE	✓
DeviceNet™	✓
Ambient temperature, operation	−40 °C … +75 °C, operation with cooling case, operation with heating (depending on type)
Light source	Laser, red
Type of light	Visible red light
Laser class	2 (IEC 60825-1:2014)

Product description

The DME5000 is a reflector-based high-performance distance sensor that provides a high degree of accuracy and repeatability, along with exceptionally quick response times. It has a range of up to 300 m. State-of-the-art, dynamic and accurate measurement; multifunctional switching outputs and inputs for standby, preset, maintenance and other system functions are some of the key features this sensor has to offer.

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

- 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 cost-effective installation
- Multi-point self checks provide maintenance and replacement warnings increasing overall system throughput
- Rugged metal housing as well as cooling accessories and heated device variants deliver high operating reserve in harsh ambient conditions
- User-friendly display with easy menu navigation ensures fast and cost-effective commissioning
- Multiple serial fieldbus interfaces deliver high flexibility in application integration
- Integrated speed monitoring for additional process reliability
- Very high accuracy and reproducibility for maximum system throughput

Ordering information

Other models and accessories → www.sick.com/DME5000

- **Measuring range:** 0.15 m ... 70 m, on reflective tape "Diamond Grade"
- **Repeatability:** 0.5 mm
- **Accuracy:** ± 2 mm

Output time	Communica-tion interface	Connection type	Current con-sumption	Note	Type	Part no.
1 ms	SSI	Male connec-tor, M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-121	1024083
			At 24 V DC < 250 mA	–	DME5000-111	1022949
				With special fre-quency F1 for par-allel mounting	DME5000-111S07	1040401
2 ms	DeviceNet™	Male connec-tor, 1 x M12, 4-pin, A-coded, 1 x M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-124	1025836
			At 24 V DC < 250 mA	–	DME5000-114	1025832
		Male connec-tor, M12, 5-pin	At 24 V DC < 250 mA	–	DME5000-115	1025833
	HIPERFACE®	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-127	1028244
			At 24 V DC < 250 mA	–	DME5000-117	1028243
	PROFIBUS DP	Male connector, 2 x M12, 5-pin, B-coded, 1 x M16, 8-pin, B-coded	At 24 V DC < 1,000 mA	–	DME5000-122	1024084
			At 24 V DC < 250 mA	–	DME5000-112	1023668
	Serial	Male connec-tor, M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-123	1025249
			At 24 V DC < 250 mA	–	DME5000-113	1025248

- **Measuring range:** 0.15 m ... 150 m, on reflective tape "Diamond Grade"
- **Repeatability:** 1 mm
- **Accuracy:** ± 3 mm

Output time	Communica-tion interface	Connection type	Current con-sumption	Note	Type	Part no.
0.2 ms	SSI	Male connec-tor, M16, 8-pin	At 24 V DC < 250 mA	With interpola-tion of measure-ment data for high output rate	DME5000-211S08	1047031
1 ms	SSI	Male connec-tor, M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-221	1024085
			At 24 V DC < 250 mA	–	DME5000-211	1024081
				With special fre-quency F1 for par-allel mounting	DME5000-211S04	1029571

Output time	Communication interface	Connection type	Current consumption	Note	Type	Part no.
2 ms	DeviceNet™	Male connector, 1 x M12, 4-pin, A-coded, 1 x M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-224	1025837
			At 24 V DC < 250 mA	–	DME5000-214	1025834
		Male connector, M12, 5-pin	At 24 V DC < 250 mA	–	DME5000-215	1025835
	HIPERFACE®	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-227	1028246
			At 24 V DC < 250 mA	–	DME5000-217	1028245
	PROFIBUS DP	Male connector, 2 x M12, 5-pin, B-coded, 1 x M16, 8-pin, B-coded	At 24 V DC < 1,000 mA	–	DME5000-222	1024086
			At 24 V DC < 250 mA	–	DME5000-212	1024082
	Serial	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-223	1025251
			At 24 V DC < 250 mA	–	DME5000-213	1025250
				With special frequency F2 for parallel mounting	DME5000-213S05	1029572

- **Measuring range:** 0.15 m ... 300 m, on reflective tape "Diamond Grade"
- **Repeatability:** 2 mm
- **Accuracy:** ± 5 mm

Output time	Communication interface	Connection type	Current consumption	Note	Type	Part no.
1 ms	SSI	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-321	1025246
			At 24 V DC < 250 mA	–	DME5000-311	1025244
				With special frequency F1 for parallel mounting	DME5000-311S09	1050251

Output time	Communication interface	Connection type	Current consumption	Note	Type	Part no.
2 ms	DeviceNet™	Male connector, 1 x M12, 4-pin, A-coded, 1 x M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-324	1026004
			At 24 V DC < 250 mA	–	DME5000-314	1026002
		Male connector, M12, 5-pin	At 24 V DC < 250 mA	–	DME5000-315	1026003
	HIPERFACE®	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-327	1028248
			At 24 V DC < 250 mA	–	DME5000-317	1028247
	PROFIBUS DP	Male connector, 2 x M12, 5-pin, B-coded, 1 x M16, 8-pin, B-coded	At 24 V DC < 1,000 mA	–	DME5000-322	1025247
			At 24 V DC < 250 mA	–	DME5000-312	1025245
	Serial	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	–	DME5000-323	1025253
			At 24 V DC < 250 mA	–	DME5000-313	1025252

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.

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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