



DME5000

Most precise distance measurement

SICK
Sensor Intelligence.



Technical data overview

Resolution	≥ 0.05 mm
Repeatability	0.5 mm 1 mm 2 mm (depending on type)
Response time	6 ms
Output time	0.2 ms ... 2 ms (depending on type)
Digital output	Type Push-pull: PNP/NPN
SSI	✓
PROFIBUS DP	✓
Serial	✓, RS-422
HIPERFACE®	✓
DeviceNet™	✓
Enclosure rating	IP65
Ambient temperature, operation	-40 °C ... +75 °C, operation with cooling case, operation with heating (depending on type)

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

- **Communication interface:** SSI
- **Measuring range:** 0.15 m ... 70 m, on “diamond grade” reflective tape
- **Output time:** 1 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
0.5 mm	± 2 mm	At 24 V DC < 1,000 mA	Male connector, M16, 8-pin	DME5000-121	1024083
		At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-111	1022949

- **Communication interface:** SSI
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 1 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 1,000 mA	Male connector, M16, 8-pin	DME5000-221	1024085
		At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-211	1024081

- **Communication interface:** SSI
- **Measuring range:** 0.15 m ... 300 m, on “diamond grade” reflective tape
- **Output time:** 1 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
2 mm	± 5 mm	At 24 V DC < 1,000 mA	Male connector, M16, 8-pin	DME5000-321	1025246
		At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-311	1025244

- **Communication interface:** PROFIBUS DP
- **Measuring range:** 0.15 m ... 70 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
0.5 mm	± 2 mm	At 24 V DC < 1,000 mA	Male connector, 2 x M12, 5-pin, B-coded, 1 x M16, 8-pin, B-coded	DME5000-122	1024084
		At 24 V DC < 250 mA		DME5000-112	1023668

- **Communication interface:** PROFIBUS DP
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 1,000 mA	Male connector, 2 x M12, 5-pin, B-coded, 1 x M16, 8-pin, B-coded	DME5000-222	1024086
		At 24 V DC < 250 mA		DME5000-212	1024082

- **Communication interface:** PROFIBUS DP
- **Measuring range:** 0.15 m ... 300 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
2 mm	± 5 mm	At 24 V DC < 1,000 mA	Male connector, 2 x M12, 5-pin, B-coded, 1 x M16, 8-pin, B-coded	DME5000-322	1025247
		At 24 V DC < 250 mA		DME5000-312	1025245

- **Communication interface:** Serial
- **Measuring range:** 0.15 m ... 70 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
0.5 mm	± 2 mm	At 24 V DC < 1,000 mA	Male connector, M16, 8-pin	DME5000-123	1025249
		At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-113	1025248

- **Communication interface:** Serial
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 1,000 mA	Male connector, M16, 8-pin	DME5000-223	1025251
		At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-213	1025250

- **Communication interface:** Serial
- **Measuring range:** 0.15 m ... 300 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
2 mm	± 5 mm	At 24 V DC < 1,000 mA	Male connector, M16, 8-pin	DME5000-323	1025253
		At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-313	1025252

- **Communication interface:** HIPERFACE®
- **Measuring range:** 0.15 m ... 70 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
0.5 mm	± 2 mm	At 24 V DC < 1,000 mA	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	DME5000-127	1028244
		At 24 V DC < 250 mA		DME5000-117	1028243

- **Communication interface:** HIPERFACE®
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 1,000 mA	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	DME5000-227	1028246
		At 24 V DC < 250 mA		DME5000-217	1028245

- **Communication interface:** HIPERFACE®
- **Measuring range:** 0.15 m ... 300 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
2 mm	± 5 mm	At 24 V DC < 1,000 mA	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	DME5000-327	1028248
		At 24 V DC < 250 mA		DME5000-317	1028247

- **Communication interface:** DeviceNet™
- **Measuring range:** 0.15 m ... 70 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
0.5 mm	± 2 mm	At 24 V DC < 1,000 mA	Male connector, 1 x M12, 4-pin, A- coded, 1 x M16, 8-pin	DME5000-124	1025836
		At 24 V DC < 250 mA		DME5000-114	1025832
			Male connector, M12, 5-pin	DME5000-115	1025833

- **Communication interface:** DeviceNet™
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 1,000 mA	Male connector, 1 x M12, 4-pin, A- coded, 1 x M16, 8-pin	DME5000-224	1025837
		At 24 V DC < 250 mA		DME5000-214	1025834
			Male connector, M12, 5-pin	DME5000-215	1025835

- **Communication interface:** DeviceNet™
- **Measuring range:** 0.15 m ... 300 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
2 mm	± 5 mm	At 24 V DC < 1,000 mA	Male connector, 1 x M12, 4-pin, A- coded, 1 x M16, 8-pin	DME5000-324	1026004
		At 24 V DC < 250 mA		DME5000-314	1026002
			Male connector, M12, 5-pin	DME5000-315	1026003

- **Note:** with special frequency F1 for parallel mounting
- **Communication interface:** SSI
- **Measuring range:** 0.15 m ... 70 m, on “diamond grade” reflective tape
- **Output time:** 1 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
0.5 mm	± 2 mm	At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-111S07	1040401

- **Note:** with special frequency F1 for parallel mounting
- **Communication interface:** SSI
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 1 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-211S04	1029571

- **Note:** with interpolation of measurement data for high output rate
- **Communication interface:** SSI
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 0.2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-211S08	1047031

- **Note:** with special frequency F2 for parallel mounting
- **Communication interface:** Serial
- **Measuring range:** 0.15 m ... 150 m, on “diamond grade” reflective tape
- **Output time:** 2 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
1 mm	± 3 mm	At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-213S05	1029572

- **Note:** with special frequency F1 for parallel mounting
- **Communication interface:** SSI
- **Measuring range:** 0.15 m ... 300 m, on “diamond grade” reflective tape
- **Output time:** 1 ms

Repeatability	Accuracy	Current consumption	Connection type	Type	Part no.
2 mm	± 5 mm	At 24 V DC < 250 mA	Male connector, M16, 8-pin	DME5000-311S09	1050251

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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