



DME4000

Standard sensor for measurement distances up to 220 m

LONG RANGE DISTANCE SENSORS

SICK
Sensor Intelligence.



Technical data overview

Measuring range	0.15 m ... 220 m, on reflective tape "Diamond Grade" (depending on type)
Repeatability	≤ 1 mm 2 mm 3 mm
Output time	1 ms ... 4 ms (depending on type)
Accuracy	± 3 mm ± 5 mm ± 6 mm
Target	Reflector
SSI	✓
PROFIBUS DP	✓
Serial	✓, RS-422
DeviceNet™	✓
HIPERFACE	✓
CANopen	✓
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 DME4000 is a reflector-based distance sensor supporting sensing ranges of up to 220 m. Highly dynamic and precise measurement, multi-functional switching outputs, and inputs for standby, preset, maintenance, and other system functions are some of the key features this sensor offers.

At a glance

- Measuring range 0.15 m ... 50 m / 0.15 m ... 130 m / 0.15 m ... 220 m
- Short positioning operations thanks to very fast measuring cells
- Very high accuracy and reproducibility
- Easy commissioning: illuminated LC display with diagnostics information
- Easy mounting and alignment concept: alignment bracket with spring / visible red light
- 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

Ordering information

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

- **Measuring range:** 0.15 m ... 50 m, on reflective tape "Diamond Grade"
- **Repeatability:** ≤ 1 mm
- **Accuracy:** ± 3 mm
- **Current consumption:** At 24 V DC < 250 mA

Output time	Communication interface	Connection type	Note	Type	Part no.
1 ms	SSI	Male connector, M16, 8-pin	–	DME4000-111	1029789
			With mounting adapter for DME5000 bracket	DME4000-111S05	1045159
2 ms	DeviceNet™	Male connector, 1 x M12, 4-pin, 1 x M16, 8-pin	–	DME4000-114	1029800
	HIPERFACE®	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	–	DME4000-117	1029807
	PROFIBUS DP	Male connector, 2 x M12, 5-pin, B-coded, 1 x M16, 8-pin, B-coded	–	DME4000-112	1029788
	Serial	Male connector, M16, 8-pin	–	DME4000-113	1029796
4 ms	CANopen	Male connector, M12, 5-pin	–	DME4000-119	1042838

- **Measuring range:** 0.15 m ... 50 m, on reflective tape "Diamond Grade"
- **Repeatability:** 1 mm
- **Accuracy:** ± 3 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	–	DME4000-121	1029792
2 ms	DeviceNet™	Male connector, 1 x M12, 4-pin, 1 x M16, 8-pin	At 24 V DC < 1,000 mA	–	DME4000-124	1029808
		Male connector, M12, 5-pin, A-coded	At 24 V DC < 250 mA	–	DME4000-115	1029801
	HIPERFACE®	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	At 24 V DC < 1,000 mA	–	DME4000-127	1029812
	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	–	DME4000-122	1029793
	Serial	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	–	DME4000-123	1029797
4 ms	CANopen	Male connector, M12, 5-pin	At 24 V DC < 250 mA	CANopen with separate connector	DME4000-119S03	1045252

- **Measuring range:** 0.15 m ... 130 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	-	DME4000-221	1029794
			At 24 V DC < 250 mA	-	DME4000-211	1029790
2 ms	DeviceNet™	Male connector, 1 x M12, 4-pin, 1 x M16, 8-pin	At 24 V DC < 1,000 mA	-	DME4000-224	1029805
			At 24 V DC < 250 mA	-	DME4000-214	1029802
	Male connector, 1 x M16, 8-pin	At 24 V DC < 250 mA	-	DME4000-215	1029803	
		HUPERFACE®	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	At 24 V DC < 1,000 mA	-	DME4000-227
	At 24 V DC < 250 mA			-	DME4000-217	1029806
	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	-	DME4000-222	1029795
			At 24 V DC < 250 mA	-	DME4000-212	1029791
	Serial	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	-	DME4000-223	1029799
At 24 V DC < 250 mA			-	DME4000-213	1029798	
4 ms	CANopen	Male connector, M12, 5-pin	At 24 V DC < 250 mA	-	DME4000-219	1042839
				CANopen with separate connector	DME4000-219S04	1045253

- **Measuring range:** 0.15 m ... 220 m, on reflective tape "Diamond Grade"
- **Repeatability:** 3 mm
- **Accuracy:** ± 6 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	-	DME4000-321	1041957
			At 24 V DC < 250 mA	-	DME4000-311	1041951

Output time	Communication interface	Connection type	Current consumption	Note	Type	Part no.
2 ms	DeviceNet™	Male connector, 1 x M12, 4-pin, 1 x M16, 8-pin	At 24 V DC < 1,000 mA	-	DME4000-324	1041960
			At 24 V DC < 250 mA	-	DME4000-314	1041953
		Male connector, 1 x M16, 8-pin	At 24 V DC < 250 mA	-	DME4000-315	1041954
		Male connector, M12, 5-pin, A-coded	At 24 V DC < 250 mA	With mounting adapter for DME5000 bracket	DME4000-315S02	1042734
	HIPERFACE®	Male connector, 1 x M12, 4-pin, 1 x M12, 8-pin	At 24 V DC < 1,000 mA	-	DME4000-327	1041961
			At 24 V DC < 250 mA	-	DME4000-317	1041955
	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	-	DME4000-322	1041958
			At 24 V DC < 250 mA	-	DME4000-312	1041950
	Serial	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	-	DME4000-323	1041959
			At 24 V DC < 250 mA	-	DME4000-313	1041952
4 ms	CANopen	Male connector, M12, 5-pin	At 24 V DC < 250 mA	-	DME4000-319	1042841

- **Measuring range:** 0.15 m ... 130 m, on reflective tape "Diamond Grade"
- **Repeatability:** ≤ 2 mm
- **Accuracy:** ± 5 mm
- **Output time:** 1 ms

Communication interface	Connection type	Current consumption	Note	Type	Part no.
SSI	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	With mounting adapter for DME5000 bracket	DME4000-211S06	1045160

- **Measuring range:** 0.15 m ... 220 m, on reflective tape "Diamond Grade"
- **Repeatability:** ≤ 3 mm
- **Accuracy:** ± 6 mm
- **Output time:** 1 ms

Communication interface	Connection type	Current consumption	Note	Type	Part no.
SSI	Male connector, M16, 8-pin	At 24 V DC < 1,000 mA	With mounting adapter for DME5000 bracket	DME4000-311S01	1042733

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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