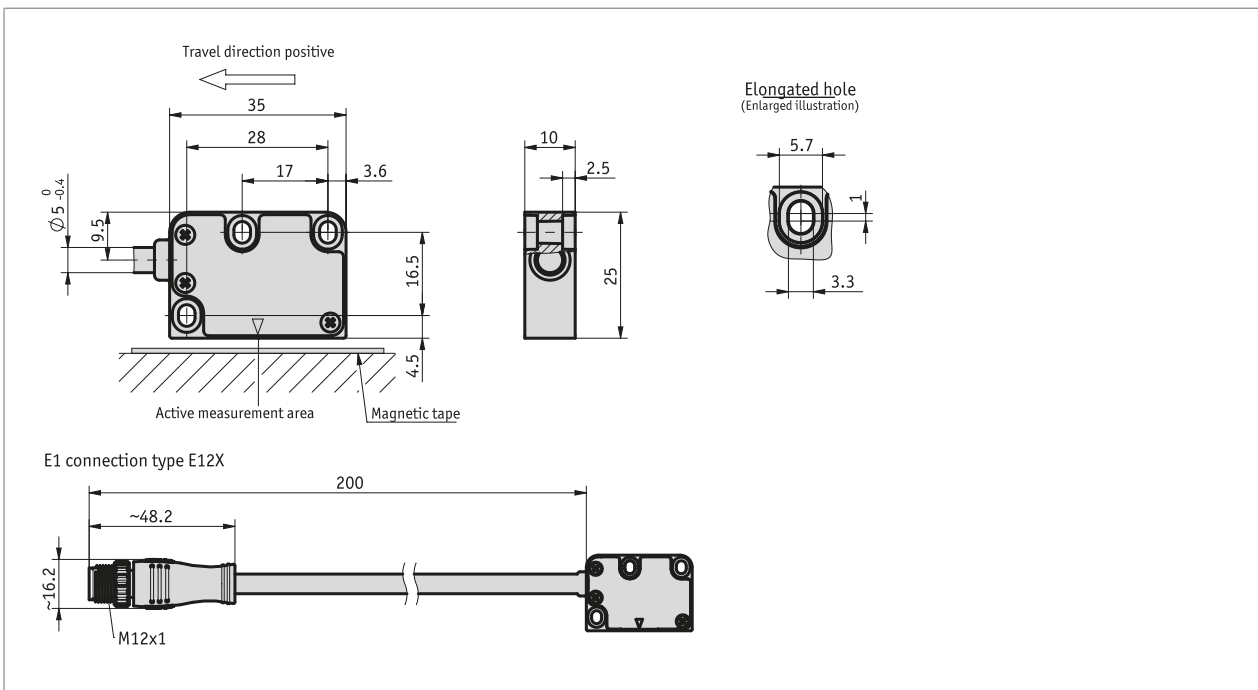
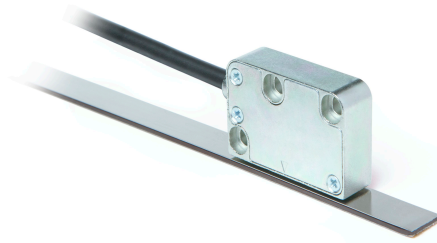


Profile

CANopen

- Max. resolution 5 μm
- Repeat accuracy $\pm 0.01\text{ mm}$
- Works with magnetic tape MB500/1, magnetic ring MR500, magnetic band ring MBR500
- Reading distance $\leq 2\text{ mm}$
- Easy connection to existing bus system
- Price advantage compared to absolute system



Mechanical data

Feature	Technical data	Additional information
Housing	zinc die-cast	ZM design
Sensor/band reading distance	0.1 ... 2 mm	
Sensor/ring reading distance	0.1 ... 2 mm	
Cable sheath	PUR	5-core, $\varnothing 5.2 \pm 0.3\text{ mm}$
Cable bending radius	5x cable diameter	static
	7.5x cable diameter	dynamic

Electrical data

Feature	Technical data	Additional information
Operating voltage	5 ... 30 V DC	reverse polarity protection
Current consumption	<25 mA at 24 V DC	unloaded
	<75 mA at 24 V DC	loaded
Interface	CANopen	spec. 2.0A, DS 301, DS 406, ISO 11898
Address	1 ... 127	Node ID, via SDO
Baud rate	50 kbit/s	
	100 kbit/s	
	125 kbit/s	
	250 kbit/s	
	500 kbit/s	
	1 Mbit/s	
Cycle time	1.5 ms	typical
Starting time	<150 ms	
Type of connection	M12 plug connector (A-coded)	5-pole, 1x pin

System data

Feature	Technical data	Additional information
Resolution	0.005 mm	
	0.01 mm	
Linearity deviation	±20 µm at T _U = 20° C	1 mm reading distance
Repeat accuracy	±10	
Measuring range	±2147483648 Increment(s)	4 bytes position value range
Travel speed	≤4 m/s	

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-25 ... 80 °C	
Storage temperature	-30 ... 80 °C	
Relative humidity	100 %	condensation admissible
EMC	EN 61000-6-3	emitted interference / emission
	EN 61000-6-4	emitted interference / emission
	EN 61000-6-2	interference resistance / immission
Protection category	IP67	EN 60529
Shock resistance	500 m/s ² , 11 ms	EN 60068-2-27
Vibration resistance	100 m/s ² , 5 ... 150 Hz	EN 60068-2-6

pin assignment

Signal	PIN
CAN_GND*	1
+UB	2
GND*	3
CAN_H	4
CAN_L	5

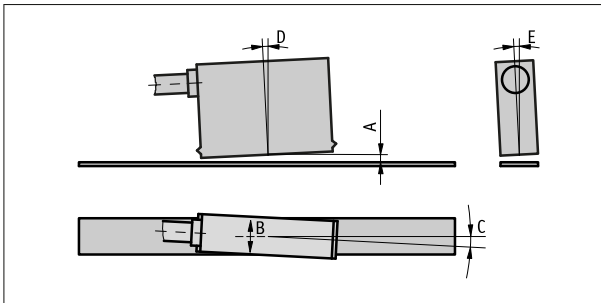
* CAN_GND internally connected to GND

Hint for mounting

A, Sensor/tape reading distance	≤2 mm
B, Lateral offset	±2 mm
C, Alignment error	±3°
D, Longitudinal inclination	±1°
E, Lateral inclination	±3°



The length of the cable between the sensor and connector cannot be subsequently increased or decreased.



Symbolic representation

Order

■ Ordering information

One or more system components are required:

Magnetic tape MB500/1
 Magnetic ring MR500
 Magnetic band ring MBR500

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■ Ordering table

Feature	Ordering data	Spezifikation	Additional information
linear resolution/ radial scaling factor	A ...	0.005/250, 0.01/125	
Bus termination	B OBA MBA	without resistance with resistance 120 Ω	

■ Order key

MSK5000CAN - E12X - 00,2 - CAN - - S -



Scope of delivery:
 MSK5000CAN, Quick Start Guide