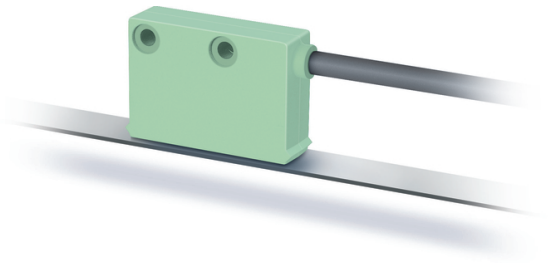
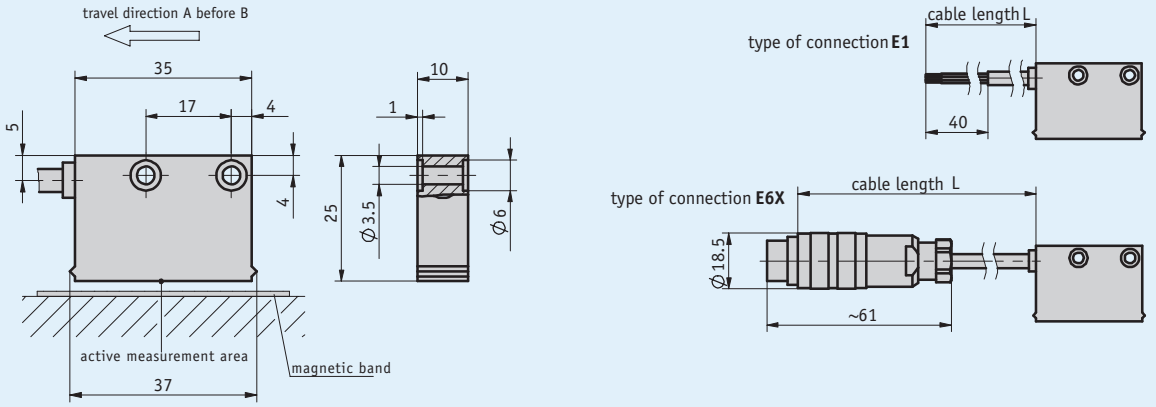
Magnetic sensor MSK2000
Compact sensor, incremental, digital interface, resolution 0.25 mm

Profile

- Linear resolution 0.25 mm
- Repeat accuracy of ±1 increment
- Operating voltage 5 or 24 V
- Works with magnetic tape MB2000
- Reading distance ≤10 mm





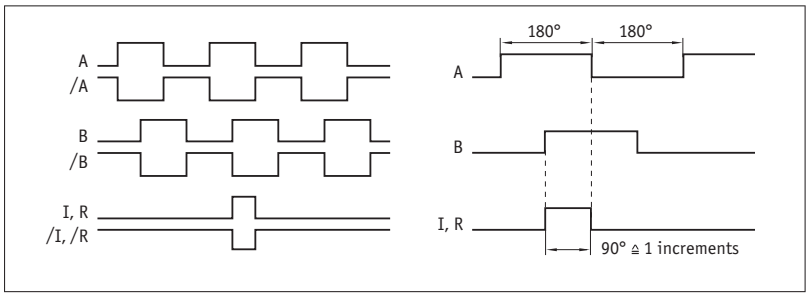
Mechanical data

Feature	Technical data	Additional information
Housing	light green plastic	
Sensor/band reading distance	1 ... 10 mm	
Cable sheath	PUR, suitable for drag-chain use	4-wire ø4.4$_{-0.4}$ mm; 6, 8-wire ø5$_{-0.4}$ mm

Electrical data

Feature	Technical data	Additional information
Operating voltage	10 ... 30 V DC	reverse polarity protected
	5 V DC ±5 %	no reverse polarity protection
Current consumption	<50 mA	PP, unloaded
	<25 mA	LD
Output circuit	PP, LD (RS422)	
Output signals	A, A/, B, B/, I, I/	90° off-phase
Output signal level high	UB - 2.5 V	PP
	RS422 specific	LD
Output signal level low	<0.8 V	PP
	RS422 specific	LD
Pulse width of reference signal	1 increment(s)	
Real-time requirement	speed-proportional signal output	
Type of connection	open cable end	
	plug connector	7/8-pole

Signal patterns



The logical condition of signals A and B is not defined in reference to the index signal I or the reference signal R. It can deviate from the signal form.

System data

Feature	Technical data	Additional information
Resolution	0.25, 1 mm	
System accuracy	±(1 + 0.03 x L) mm, L in m	bei 20 °C
Repeat accuracy	±1 increment(s)	
Measuring range	∞	
Travel speed	≤25 m/s	

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-10 ... 70 °C	
Storage temperature	-30 ... 80 °C	
Relative humidity	100 %	condensation admissible
EMC	EN 61000-6-2	interference resistance / immission
	EN 61000-6-4	emitted interference / emission
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

Not inverted

Signal	E1	E6X
GND	black	1
+UB	brown	2
A	red	3
B	orange	4
nc		5
nc		6
nc		7

Inverted

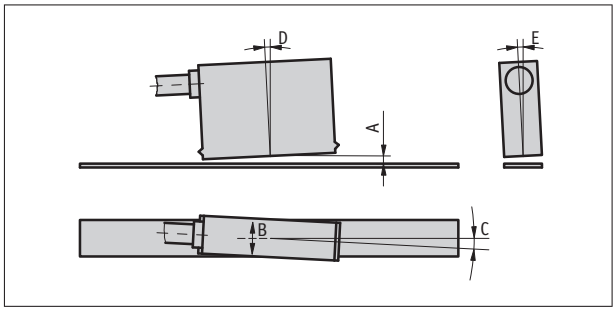
Signal	E1	E6X
A	red	1
B	orange	2
nc		3
+UB	brown	4
GND	black	5
/A	yellow	6
/B	green	7

Inverted with reference signal

Signal	E1	E6X
A	red	1
B	orange	2
I	blue	3
+UB	brown	4
GND	black	5
/A	yellow	6
/B	green	7
/I	violet	8

Hint for mounting

A, Sensor/tape reading distance	≤10 mm
B, Lateral offset	±2 mm (10 mm tape) ±5 mm (20 mm tape)
C, Alignment error	±3°
D, Longitudinal inclination	±3°
E, Lateral inclination	±3°



Symbolic representation

Order

Ordering information

one or more system components are required:

Magnetic band MB2000 www.siko-global.com

Ordering table

Feature	Ordering data		Specification	Additional information
Operating voltage	4	A	24 V DC	
	5		5 V DC	
Type of connection	E1	B	open cable ends	
	E6X		round connector without mating connector	
			cable extensions on request	
Cable length	...	C	01.0 ... 20 m, in intervals of 1 m	
			others on request	
Output circuit	PP	D	Push-Pull	only with operating voltage 4
	LD		Line Driver	
Output signal	NI	E	not inverted	
	I		inverted	
Reference signal	0	F	without	
	I		periodic index	
Resolution	...	G	0.25, 1 in mm	

Order key

MSK2000 - [A] - [B] - [C] - [D] - [E] - [F] - [G]

Scope of delivery: *MSK2000, Mounting instructions, Fastening set*

subject to technical alteration • 2015/11/17 • 11:23