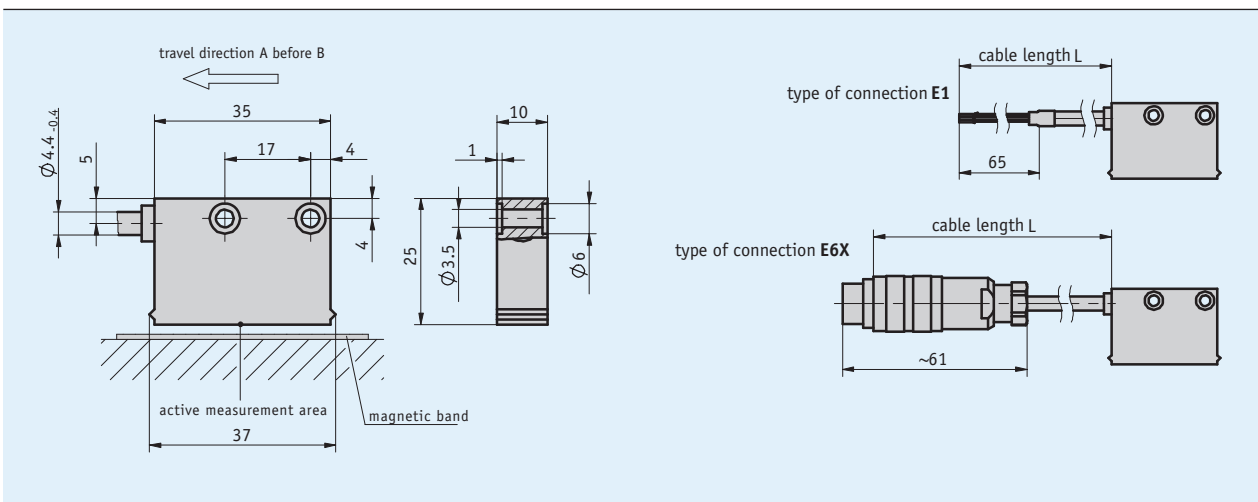
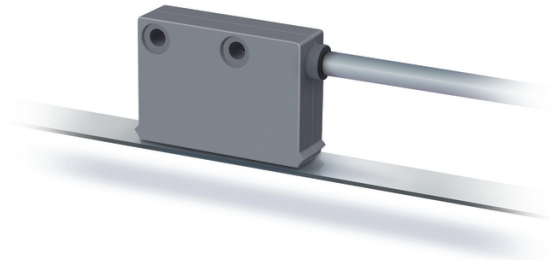


### Profile

- Max. resolution of 0.25 mm
- Repeat accuracy  $\pm 2$  increments (max.  $\pm 0.5$  mm)
- Works with magnetic tape MB4000
- Reading distance  $\leq 20$  mm



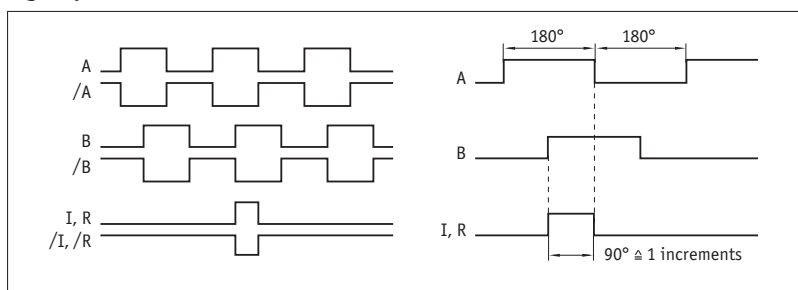
### Mechanical data

Feature	Technical data	Additional information
Housing	plastic ABS gray	
Sensor/band reading distance	5 ... 20 mm	
Cable sheath	PUR, suitable for drag-chain use	4-wire $\varnothing 4.4_{-0.4}$ mm; 8-wire $\varnothing 5_{-0.4}$ mm
Cable bending radius	5x cable diameter 7.5x cable diameter	static dynamic
Service life of cable	>5 million cycles	under the following test conditions: travel range 4.5 m travel speed 3 m/s acceleration 5 m/s <sup>2</sup> ambient temperature 20 °C $\pm 5$ °C

### Electrical data

Feature	Technical data	Additional information
Operating voltage	24 V DC $\pm 20\%$	reverse polarity protected
	5 V DC $\pm 5\%$	no reverse polarity protection
Current consumption	<50 mA	PP, unloaded
	<25 mA	LD
Output circuit	PP, LD (RS422), TTL	
Output signals	A, A/, B, B/, I, I/	90° off-phase
Output signal level high	UB - 2.5 V	PP
	RS422 specific	LD
	>2.4 V	TTL
Output signal level low	<0.8 V	PP
	RS422 specific	LD
	<0.4 V	TTL
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, 0.5, 1, 2 mm	
System accuracy	$\pm 2$ mm	at $T_U = 20\text{ °C}$ , length-dependent error depends on the mounting situation
Repeat accuracy	$\pm 2$ increment(s)	
Measuring range	$\infty$	
Travel speed	$\leq 15$ 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 <sup>2</sup> , 11 ms	EN 60068-2-27
Vibration resistance	100 m/s <sup>2</sup> , 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 with reference signal

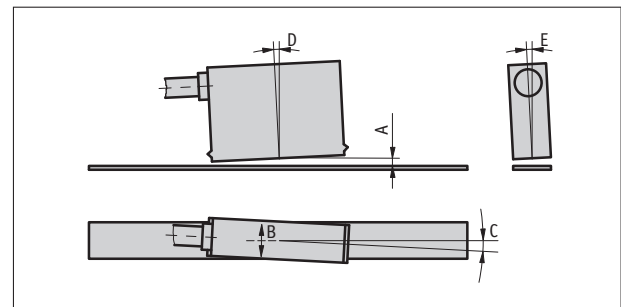
Signal	E1	E6X
A	red	1
B	orange	2
I	blue	3
+UB	brown	4
GND	black	5
/A	yellow	6
/B	green	7
/I	violet	8

### ■ Inverted

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

## Hint for mounting

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



Symbolic representation

## Order

### Ordering information

One or more system components are required:

Magnetic band MB4000

[www.siko-global.com](http://www.siko-global.com)

### Ordering table

Feature	Ordering data	Specification	Additional information
Operating voltage	4	10 ... 30 V DC	
	5	5 V DC	
Type of connection	E1	open cable ends	
	E6X	round connector without mating connector	
		cable extension on request	
Cable length	...	01.0 ... 20 m, in intervals of 0.1 m others on request	
Output circuit	PP	push-Pull	only with operating voltage 4
	LD	Line Driver	
	TTL	TTL	only with NI output circuit
Output signal	NI	not inverted	
	I	inverted	not with TTL output circuit
Reference signal	0	without	
	I	periodic index	only with I output signal
Resolution	...	0.25, 0.5, 1, 2 in mm	

### Order key

MSK4000 -  -  -  -  -  -  -  -

A
B
C
D
E
F
G

*Scope of delivery: MSK4000, Mounting instructions, Fastening set*