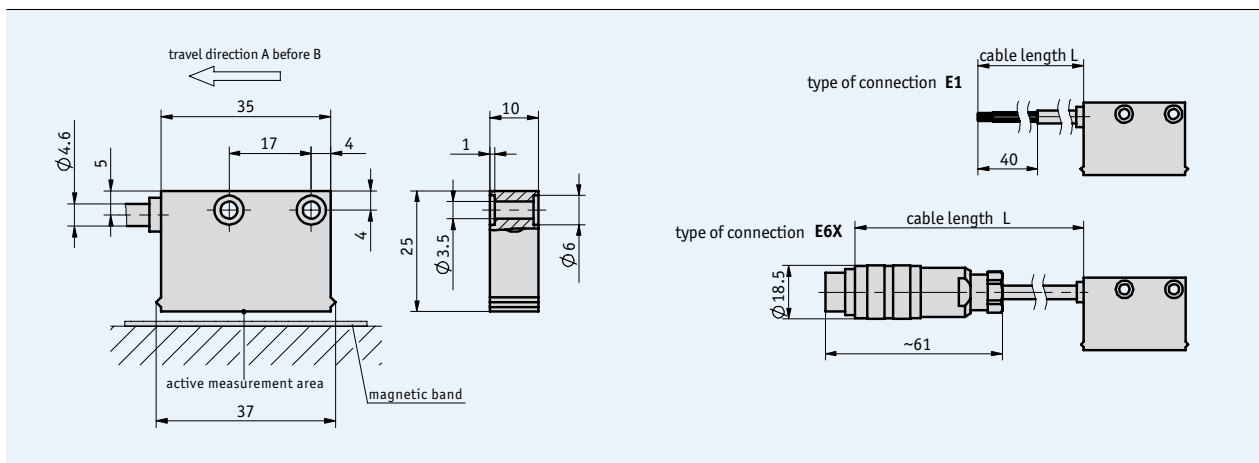


Profile

- Max. resolution of 0.25 mm
- Repeat accuracy ± 2 increments (max. ± 0.5 mm)
- Insensitive to dust, shavings, humidity, etc.
- Max. sensor/band reading distance 20 mm



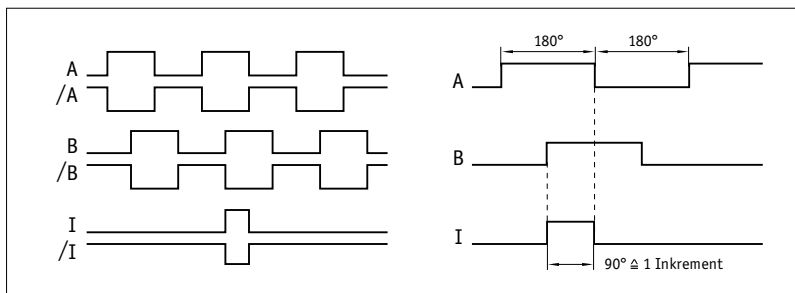
Mechanical data

Feature	Technical data	Additional information
Scale embodiment	MB4000	
System accuracy	± 2 mm, with nominal distance of 15 mm	length-dependent error depends on the mounting situation
Repeat accuracy	2 increments	max. ± 0.5 mm
Sensor/band reading distance	max. 20 mm, min. 5 mm	
Travel speed	<15 m/s	
Housing	plastic ABS, gray	
Sensor cable	PUR, oil-resistant	drag chain-compatible
Operating temperature	-10 ... +70 °C	
Storage temperature	-30 ... +80 °C	
Humidity	100 % rh	condensation permitted
Protection category	IP67	
Vibration resistance	10 g/50 Hz	
Max. measuring length	infinite	

Electrical data

Feature	Technical data	Additional information
Operating voltage	24 V DC \pm 20 % 5 V DC \pm 5 %	reverse-polarity protection on UB no reverse-polarity protection on UB
Current consumption	<50 mA (PP) <25 mA (LD)	off-load
Type of connection	flying leads, round connector	
Output circuit	PP, LD (RS422), TTL	
Output signals	A, B, option: /A, /B, I, /I	90° phase-shifted
Length of reference signal	1 increment	
Resolution	0.25, 0.5, 1, 2 mm	
Interference protection class	3	IEC-61000-6-2
Real-time requirement	real-time signal processing	
Signal level high	UB – 2.5 V PP	LD according to RS422 specific, TTL > 2.4 V
Signal level low	<0.8 V	LD according to RS422 specific, TTL < 0.4 V

Signal forms



! 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.

Pin assignment

non-inverted

Signal	E1	E6X
A	red	3
B	orange	4
+UB	brown	2
GND	black	1
N.C.		5,6,7

inverted

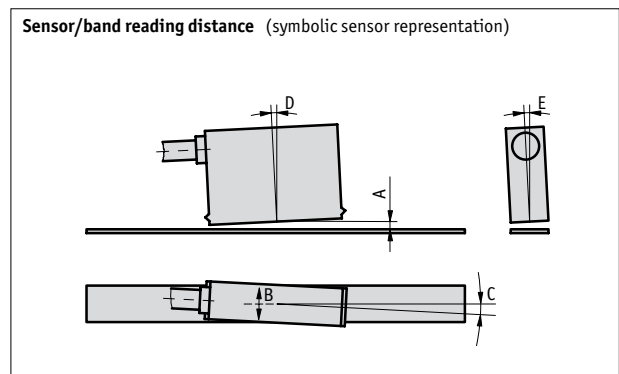
Signal	E1	E6X
A	red	1
B	orange	2
+UB	brown	4
GND	black	5
A/	yellow	6
B/	green	7
N.C.		3

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

Mounting instruction

A , Sensor/band reading distance	5 ... 20 mm
B , Lateral offset	max. ±5 mm
C , Misalignment	<±10°
D , Longitudinal tilt	<±3°
E , Lateral tilt	<±3°



Order

■ **Order table**

Feature	Order data	Specifications	Additional information
Operating voltage	4	10 ... 30 V DC	reverse-polarity protection
	5	5 V DC ±5 %	no reverse-polarity protection
Type of connection	E1	flying leads	
	E6X	round connector without mating connectors	
		cable extensions on request	
Cable length L	...	1 ... 20 m, in steps of 1 m	
		others on request	
Output circuit	PP	push-pull	only with operating voltage 4
	LD	line driver (RS422)	
	TTL		only with output signal NI
Output signal	NI	non-inverted	
	I	inverted	not with output circuit TTL
Reference signal	0	without	
	I	index periodic	only with output signal I
Resolution	...	0.25, 0.5, 1, 2	

■ **Order code**



Scope of delivery: MSK4000, User information

Additional information:

Short Description, Technical Details
Product Overview

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