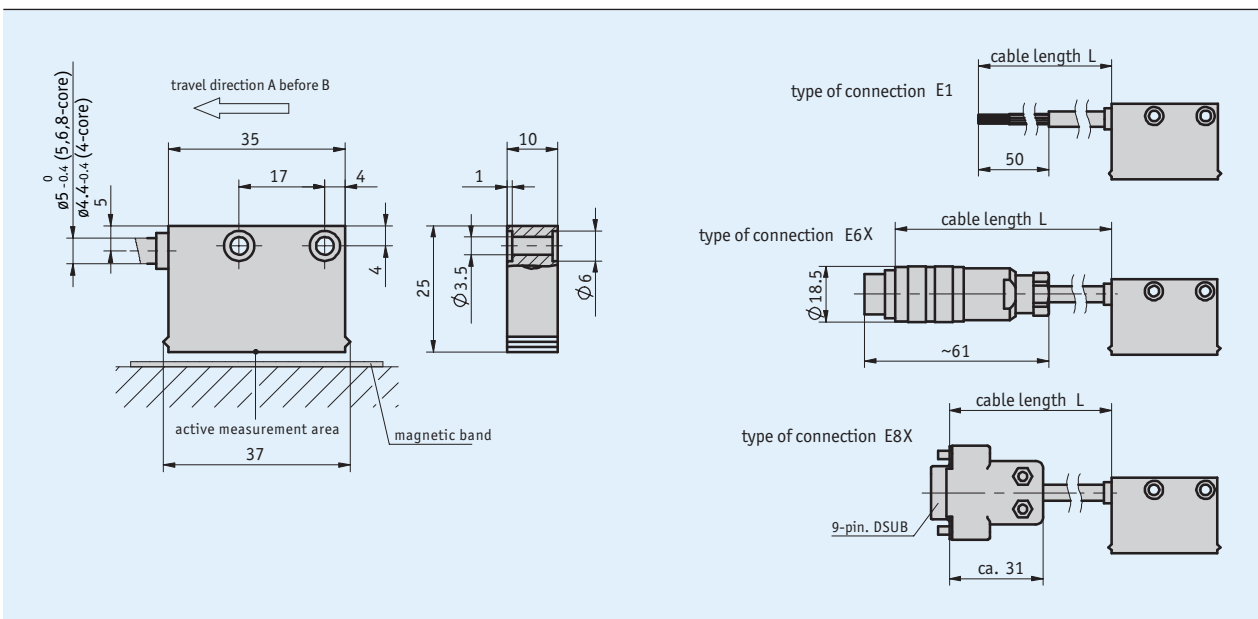
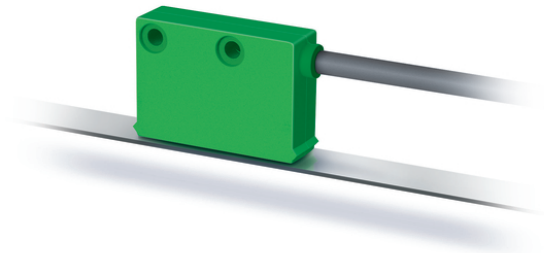


Profile

- Max. resolution 25 μm
- Repeat accuracy $\pm 0.025\text{ mm}$
- works with magnetic tape MB200/1
- Reading distance $\leq 1\text{ mm}$



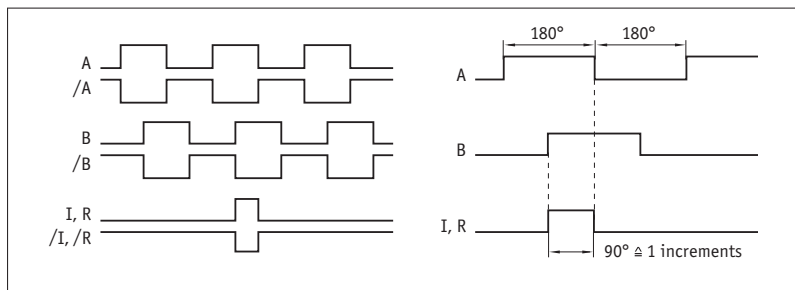
Mechanical data

Feature	Technical data	Additional information
Housing	green plastic	
Sensor/band reading distance	0.1 ... 1 mm 0.1 ... 0.4 mm	0, I reference signals R reference signal
Cable sheath	PUR suitable for drag-chain use	4-wire $\varnothing 4.4_{-0.4}\text{ mm}$; 5, 6, 8-wire $\varnothing 5_{-0.4}\text{ mm}$

Electrical data

Feature	Technical data	Additional information
Operating voltage	24 V DC±20 %	reverse polarity protected
	5 V DC ±5 %	no reverse polarity protection
Current consumption	<20 mA	at 24 V DC, off-load
	<75 mA	loaded
Output circuit	PP, LD (RS422), TTL	PP only with 24 V
Output signals	A, A/, B, B/, I, I/, R, R/	quadrature signal
Output signal level high	>UB - 2.5 V	PP
	>2.5 V	LD
	>2.4 V	TTL
Output signal level low	<0.8 V	PP
	<0.5 V	LD
	<0.4 V	TTL
Jitter	<15 %	0.5 mm reading distance
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
	D-Sub	9-pole

Signal pattern



! 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	0.025, 0.05, 0.1, 0.5 mm	
System accuracy	±(0.05 + 0.01 × L) mm, L in m	
Repeat accuracy	±1 increment(s)	
Measuring range	∞	
Travel speed	≤25 m/s	≤2 m/s referencing speed

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 without reference signal

Signal	E1	E6X	E8X
GND	black	1	1
+UB	brown	2	2
A	red	3	3
B	orange	4	4
nc		5	5
nc		6	6
nc		7	7
nc			8
nc			9

■ Inverted with reference signal

Signal	E1	E6X	E8X
A	red	1	1
B	orange	2	2
I	blue	3	3
+UB	brown	4	4
GND	black	5	5
A/	yellow	6	6
B/	green	7	7
I/	violet	8	8
nc			9

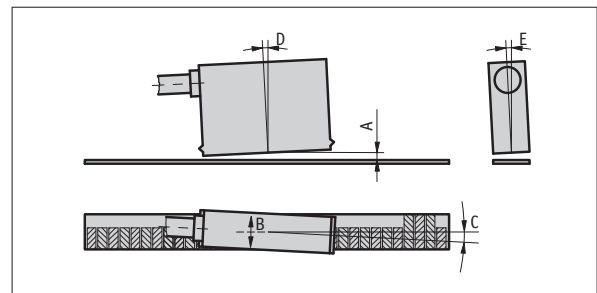
■ Inverted without reference signal

Signal	E1	E6X	E8X
A	red	1	1
B	orange	2	2
nc		3	3
+UB	brown	4	4
GND	black	5	5
A/	yellow	6	6
B/	green	7	7
nc			8
nc			9

Hint for mounting

For systems with reference points on the magnetic tape please take care that sensor and strip are correctly aligned (see picture).

Reference signal	O, I	R
A, Sensor/tape reading distance	≤1 mm	≤0.4 mm
B, Lateral offset	±2 mm	±0.5 mm
C, Alignment error	±1°	±1°
D, Longitudinal inclination	±1°	±1°
E, Lateral inclination	±3°	±3°



(symbolic sensor representation)

Order

■ **Ordering information**

one or more system components are required:

Magnetic band MB200/1

www.siko-global.com

■ **Ordering table**

Feature	Ordering data	Specification	Additional information
Operating voltage	4	24 V DC ±20%	
	5	5 V DC ±5%	
Type of connection	E1	open cable end	
	E6X	bullet connector without mating connector	
	E8X	D-SUB 9-pole without mating connector	
		cable extensions on request	
Cable length	...	1 ... 20 m, in steps of 1 m	
		others on request	
Output circuit	PP	push-pull	only with operating voltage 4
	LD	LineDriver	
	TTL	TTL	only with non-inverted output signal, cable length ≤5 m
Output signal	NI	not inverted	
	I	inverted	
Reference signal	O	without	
	I	periodic index	index signal every 2 mm
	R	fixed reference	
Resolution	...	0.025, 0.05, 0.1, 0.5	
		others on request	

■ **Order key**



Scope of delivery: Fastening set, Mounting instructions, MSK210 linear