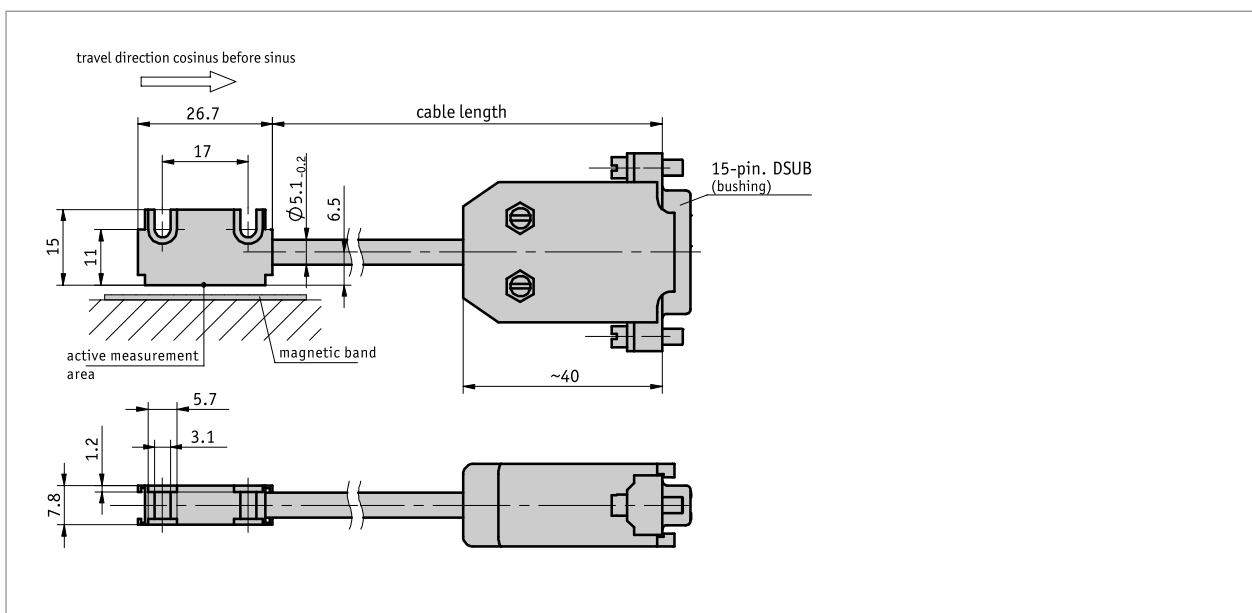
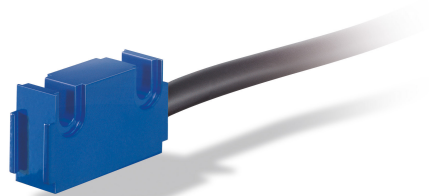


Profile

- Repeat accuracy max. $\pm 1 \mu\text{m}$
- Output circuit sin/cos 1 V_{SS}
- Signal period 1000 μm (analog)
- Real-time signal processing
- Works with MB100/1 magnetic tape



Mechanical data

Feature	Technical data	Additional information
Housing	aluminum blue	
Sensor/band reading distance	0.1 ... 0.4 mm	over the whole measuring range, without masking tape
Cable sheath	PUR	6-core $\varnothing 5.1_{\pm 0.2}$ mm

Electrical data

Feature	Technical data	Additional information
Operating voltage	5 V DC $\pm 5\%$	no reverse polarity protection
Current consumption	≤ 30 mA	unloaded
Output signals	sin, /sin, cos, /cos	
Output voltage	1 $V_{pp} \pm 10\%$	with RA = 120 Ohm until 1 kOhm at 0 ... 20 °C
Output impedance	$> 75 \Omega$, R_{Load}	
Signal period	1000 μm	
Offset voltage	2.5 V $\pm 0.5\%$	
Phasing	$90^\circ \pm 1^\circ$, $\pm 3^\circ$ (20 kHz)	
Real-time requirement	speed-proportional signal output	
Type of connection	D-SUB	15-pole, 1x socket

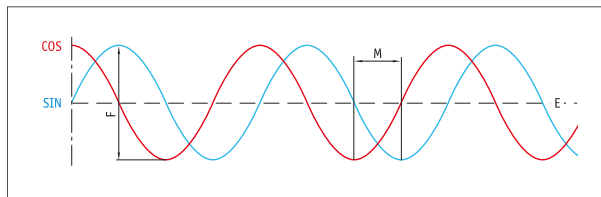
■ Signal image

E: Reference voltage 2.5

F: 1 V_{SS} ±10%

Ratio G to H: Offset ±10 mV

M: 90° ±1.0° / ±3° (25 kHz)



System data

Feature	Technical data	Additional information
Linearity deviation	±2 μm at T ₀ = 20° C	0.2 mm sensor/strip reading distance
Repeat accuracy	±1 μm	unidirectional
Measuring range	∞	
Travel speed	≤20 m/s	

Ambient conditions


Feature	Technical data	Additional information
Ambient temperature	-20 ... 70 °C 0 ... 60 °C	sensor head connector
Storage temperature	-20 ... 85 °C	sensor head
Relative humidity	100 %	condensation admissible
EMC	EN 61000-6-2 EN 61000-6-4	interference resistance / immission emitted interference / emission
Protection category	IP67	EN 60529
Shock resistance	2000 m/s ² , 11 ms	EN 60068-2-27
Vibration resistance	200 m/s ² , 50 Hz ... 2 kHz	EN 60068-2-6

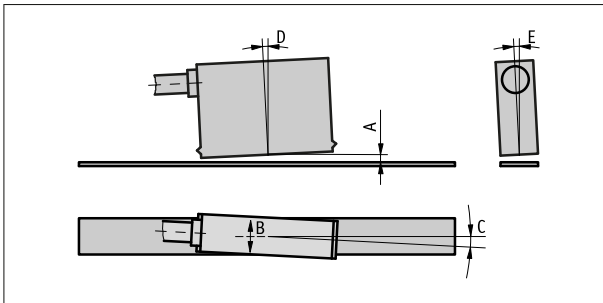
pin assignment

Signal	PIN
nc	1
GND (0V)	2
nc	3
nc	4
/B (cos-)	5
B (cos+)	6
"A (sin+)"	7
/A (sin)	8
nc	9
GND (0V)	10
nc	11
+UB	12
nc	13
GND (0V)	14
nc	15

Hint for mounting

A , Sensor/tape reading distance	≤0.4 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 MB100/1

www.siko-global.com

■ Ordering table

Feature	Ordering data	Spezifikation	Additional information
Operating voltage	A 5	5 V DC 24 V DC, on request	
Cable length	B ...	01.0 ... 20.0 m, in intervals of 1 m others on request	

■ Order key

LS100 - - PUR -



Scope of delivery:

LS100, Fastening set, Installation Instructions, Distance gage