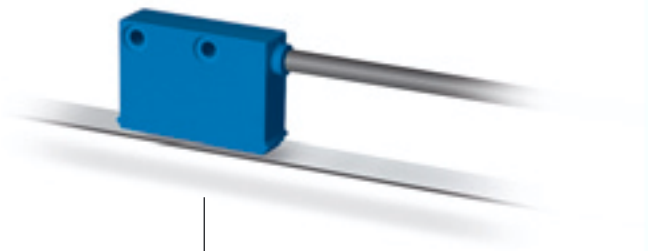
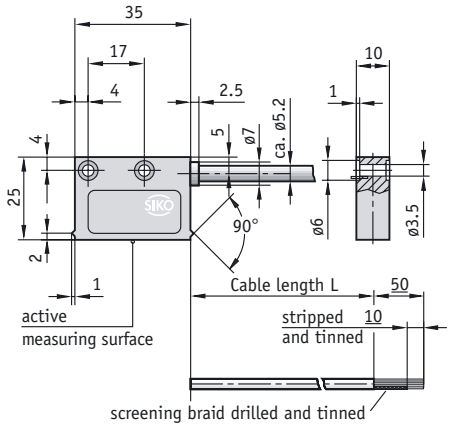
Magnetic Sensor MSK100

Contactless measuring sensor unit with integrated translation module and digital signal output.
In combination with the MB 100 magnetic strip, the magnetic sensor forms an open, robust and linear measuring system.





Sensor / Strip assignment for R reference signal

Features:

- easy mounting
- insensitive to dust, shavings, humidity
- max. resolution 1 µm
- system accuracy ± 0.01 mm
- real-time data processing
- protection class IP67
- resolution/pulse interval set by manufacturer

Resolution	Travel speed $v_{max.}$ [m/s]			
1	0.3	0.6	1.3	2.7
2	0.6	1.3	2.9	5
5	1.8	3.6	5	5
Pulse interval [µs]	2	1	0.5	0.25

The travel speed results from the selected pulse interval and the corresponding resolution.

Feature	Ordering data		Technical data	Additional information
Operating voltage	**4**	A	**24 V DC ±20 %**	**standard, with polarity protection**
	5		5 V DC ±5 %	
Connection	**E1**	B	**flying leads**	**standard**
	E6, E8		E6, circular plug	E8, D-SUB 9-pin
Cable length	**2.0**	C	**2.0 m**	**standard**, max. 20 m
Reference signal	**0**	D	**without**	**standard**
	I		index periodical	
	R		fixed, digital reference signal	
Resolution	**1**	E	**1 µm**	**standard**, option 2/ 5
Pulse interval	**1**	F	**1 µs**	**standard**, option 2/ 0.5/ 0.25
Power consumption			max. 70 mA	@ 24 V DC unloaded
Output circuit			LD	line driver RS422
Output signals			A, / A, B, / B, I, / I, R, /R	square signal
Gap magnetic strip/ sensor			0.1 – 0.4 mm, reference signal R < 0.2 mm	without cover strip
Parallel offset sensor/ strip			±0.5 mm	angle offset ±3° (±1° with R)
System accuracy			±(0.01 + 0.01 x L) mm [L in m]	repeat accuracy ±1 increment (MB100 with 10 µm)
Travel speed			see table	depending on resolution and pulse interval
Interference protection class			3, according to IEC 801	humidity: 100 % rH, condensation permissible
Temperature ranges			working temperature: –10 ... +70 °C	storage temperature: –30 ... +80 °C
Protection class			IP67 according to DIN 40050 (housing)	test mark CE
Housing/ Cable			blue plastic/ PUR	

Note: The internal translation module can generate rapid counting pulses whose length is limited by the pulse interval. The follower electronics must be adjusted accordingly. If necessary select the pulse interval in advance. For supply voltage 4, it is necessary to use a terminating resister of ≥ 470 Ohm to prevent themal stress.

Your order: MSK100 – [A] – [B] – [C] – [D] – [E] – [F]