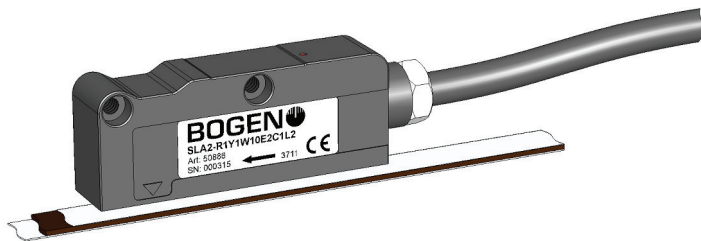




Measuring



Positioning



SLA2 Magnetic Sensing Head Linear Absolute

- Non-contact, quick position measurement
- Precise
- Stable metal housing

Features

- magnetic sensor 14 bit for measurement of absolute position
- For linear scales
- resolution up to 1 μm
- measuring length up to 30 m
- synchronous serial interface (SSI)
- A variety of connectors with adaptable cable lengths
- No wear from usage
- High measuring distance tolerance
- Resistant to dust, cooling lubricant, emulsion, oil, etc.

**Absolute positioning with the SLA2
– for linear magnetic scales**

Electrical and mechanical parameters

Incremental signal	Sinus 1 Vpp
Resolution 1Vpp	up to 1 µm
Signal period	2 mm
Serial interface	SSI / BISS
Resolution of absolute measurement	500 / 100 / 50 / 10 / 5 / 1 µm
System accuracy (sensor + scale)	± (15 + 20) µm/m ± (15 + 40) µm/m ± (15 + 80) µm/m
Repeatability	± 1 Inkrement
Measuring length	up to 30 m
Protection class	IP 67 (EN 60529)
Vibration resistance	200 m/s ² (EN 60068-2-6)
Operating temperature	0 ... +50 °C
Storage temperature	-20 ... +70 °C
Relative humidity	100%
Power supply	5 ... 28 VDC ±5% ¹⁾
Current consumption	150 mA max. (R = 120 Ohm)
Max. cable length	20 m ¹⁾
Max. traveling speed	5 m/s

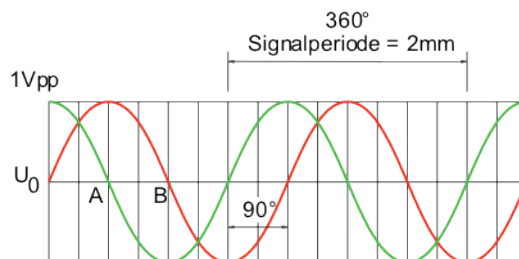
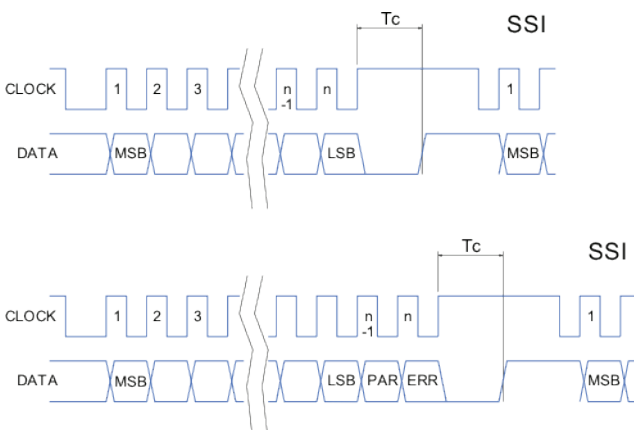
Output Signals

Interface	SSI
No. of data bits	28 ²⁾
Data format	binär / binary ²⁾
Parity	Nein / No ²⁾
Error bit	Nein / No ²⁾
Output circuit	EIA RS 485
Clock frequency	0,1 ... 1,2 MHz
Tc	60 µs
Signals	A, /A, B, /B
Signals amplitude	0,6 ... 1,2Vpp (typ. 1Vpp)
reference voltage U0	~ 2,5 V
phase displacement A and B	90° ±10° lectrical
max. frequency (at 2m/s)	100 kHz

²⁾ customized parameters on request

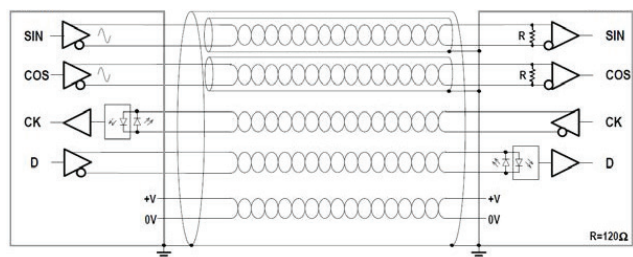
- ¹⁾ ensuring 5V min. directly at sensor input, cable length can exceed up to 100 m
- 10 wires shielded PUR cable, ø7,1mm
- power supply protected against inverse connection, outputs short-circuit-proof

Output signals

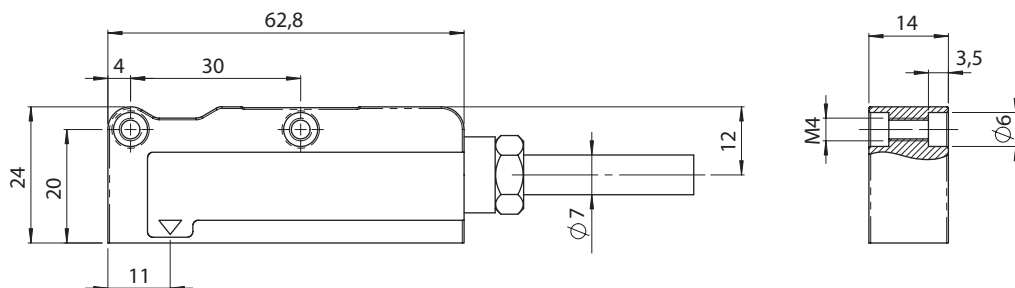


Cable assignment

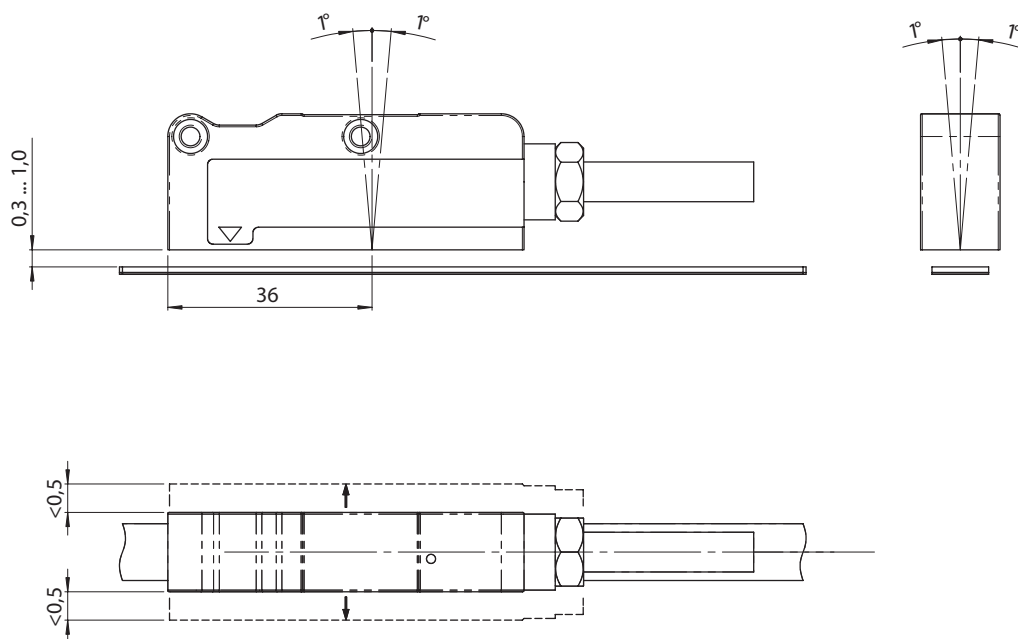
Signal	Color
V+	red
V-	blue
A	green
/A	orange
B	white
/B	light-blue
CK	brown
/CK	yellow
D	pink
/D	grey
SCH	shield



Dimensions



Mounting tolerances



Order Code

SLA2	-	R	Y	W	E	C	L
------	---	---	---	---	---	---	---

Accessory

linear scale KBEE10-C134-A20, Artikel Code 50850

		Code
R	Resolution	R1 = 1 μm
		R5 = 5 μm
		R10 = 10 μm
		R50 = 50 μm
		R100 = 100 μm
		R500 = 500 μm
Y	Interface	Y1 = SSI
		Y2 = BISS
W	For tape width	W10 = 10 mm
E	Output signal	E2 = analog sin/cos
C	Connector	C1 = loose cable ends
L	Cable length	L1 = 1 m
		L2 = 2 m
		L3 = 3 m
		L4 = ...

Example: SLA2-R1Y1W10E2C1L2