

Cable transducer

Interface SSI

Measuring length absolute up to 5 m

BMMS K50 SSI - MAGRES



BMMS K50 SSI with flange connector M12

Technical data - electrical ratings

Voltage supply	10...30 VDC
Consumption w/o load	≤60 mA (24 VDC)
Initializing time	≤170 ms after power on
Interface	SSI
Function	Linear position feedback
Resolution	0.0591 mm/step
Linearity	±0.61 % full scale output (f.s.o.)
Absolute accuracy	±1.03 % f.s.o. (+25 °C) ±1.11 % f.s.o. (-40...+85 °C)
Sensing method	Magnetic
Code	Gray or binary
Inputs	SSI clock Zero setting input
Output stages	SSI data: Linedriver RS422
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

Features

- Magnetic sensing method
- Resolution: 0.0591 mm/step
- Interface SSI
- Measuring length up to 5 m
- Removable stickers for water outlet
- Extremely light thanks to housing of plastic and aluminum

Technical data - mechanical design

Protection DIN EN 60529	IP 65 (encoder)
Materials	Encoder housing: aluminium Cable-pull housing: PA6 GF30 Cable: Stainless steel cable coated with polyamide
Operating temperature	-40...+85 °C
Service life	Typ. >500000 strokes
Measuring length	5 m
Distance/revolution	242 ±1 mm
Cable acceleration	≤50 m/s ²
Cable diameter	0.61 mm
Pull-in force	>3 N
Pull-out force	≤9 N
Relative humidity	95 % temporary condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 10-2000 Hz DIN EN 60068-2-27 Shock 50 g, 11 ms
Weight approx.	600 g
Connection	Flange connector M12, 8-pin Cable 2 m
Bending radius	Cable: >55 mm
Special characteristics	Coated electronic
Instruction	Please consider the assembly instructions

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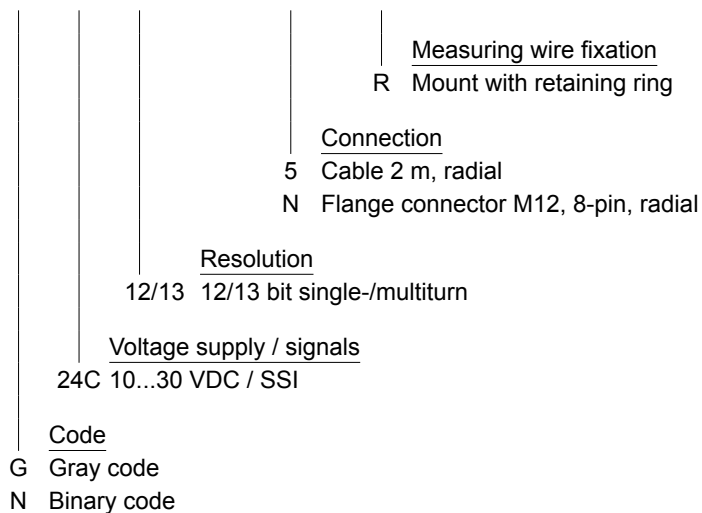
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Part number

BMMS K505

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Accessories

Connectors and cables

10146775	Female connector M12, 8-pin, straight, without cable
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Terminal significance

+Vs	Encoder supply voltage.
0 V	Encoder ground connection relating to +Vs.
Data+	Positive data output.
Data-	Negative data output.
Clock+	Positive SSI clock input.
Clock-	Negative SSI clock input.
Zero	Input for setting a zero point anywhere within the encoder resolution. The zero setting operation is triggered by a Low impulse. Connect to +Vs after setting operation for maximum interference immunity. Impulse duration >2 ms.
Note	Include termination resistor R=120 Ohm between Data+ and Data- on control side.

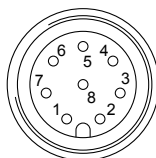
Terminal assignment

Cable and flange connector M12 for connection references -5 and -N

Pin	Core colour	Signals	Description
1	white	0 V	Supply voltage
2	brown	+Vs	Supply voltage
3	green	Clock+	Clock signal
4	yellow	Clock-	Clock signal
5	grey	Data+	Data signal
6	pink	Data-	Data signal
7	blue	Zero	Zero setting input
8	red	d.u.	do not use

Screen: connected to housing

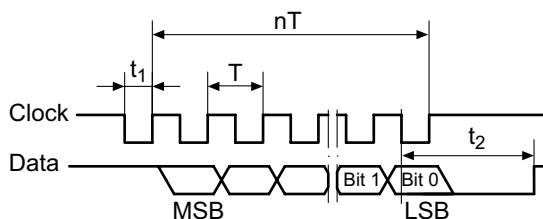
Cable data: 8 x 0.14 mm²



Trigger level

Control inputs	Input circuit
Input level Low	<0,4 V (>2 ms)
Input level High	+Vs or open

Data transfer



$$T = 1 \dots 10 \mu\text{s} \quad t_1 = 0.5 \dots 5 \mu\text{s}$$

$$t_2 \leq 12 \dots 26 \mu\text{s} \quad f \text{ max. } 1 \text{ MHz}$$

Cable transducer

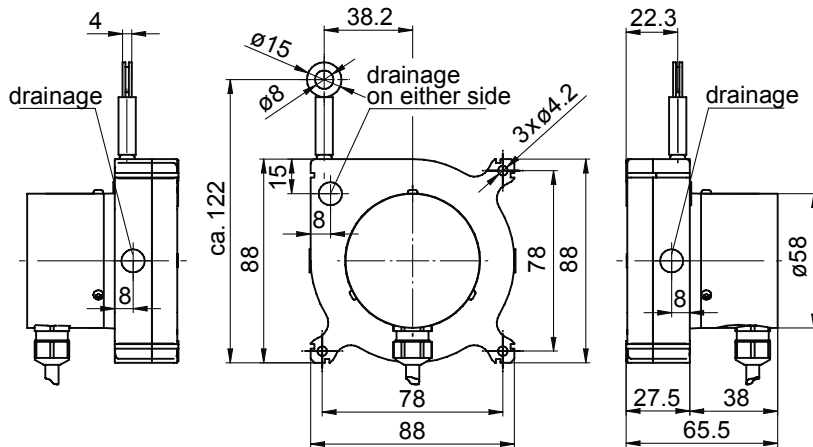
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Dimensions

BMMS K50 cable radial



BMMS K50 flange connector M12

