Cable transducer

Interface SSI

Measuring length absolute up to 3.4 m

BMMS K34 SSI - *MAGRES*

BMMS K34 SSI with flange connector M12

Features

- **Magnetic sensing method**
- **Resolution: 0.0589 mm/step**
- **Interface SSI**
- **Measuring length up to 3.4 m**
- **Removable stickers for water outlet**
- **Extremely light thanks to housing of plastic and aluminum**

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	0.0589 mm/step
Linearity	±0.52 % full scale output (f.s.o.)
Absolute accuracy	±0.93 % f.s.o. (+25 °C) ±1.02 % 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

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	3.4 m
Distance/revolution	241.9 +1.2/-0.8 mm
Cable acceleration	≤50 m/s²
Cable diameter	0.8 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.	400 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

BMMS K34 SSI - *MAGRES*

Part number

BMMS K345		24C	12/13	00		.	R	5

Measuring wire fixation
R Mount with retaining ring

Connection
5 Cable 2 m, radial
N Flange connector M12, 8-pin, radial

Resolution
12/13 12/13 bit single-/multiturn

Voltage supply / signals
24C 10...30 VDC / SSI

Code
G Gray code
N Binary code

Accessories

Connectors and cables

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

Cable transducer

Interface SSI

Measuring length absolute up to 3.4 m

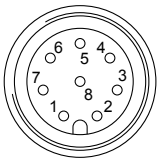
BMMS K34 SSI - *MAGRES*

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**

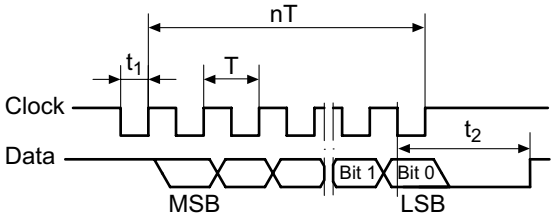
Pin	Core colour	Signals	Description
1	white	0 V	Supply voltage
2	brown	+Vs	Supply voltage
3	green	Clock+	Clock signal
4	yellow	Clock-	Clock signal
5	grey	Data+	Data signal
6	pink	Data-	Data signal
7	blue	Zero	Zero setting input
8	red	d.u.	do not use
Screen: connected to housing			
Cable data: 8 x 0.14 mm²			



Trigger level

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

Data transfer

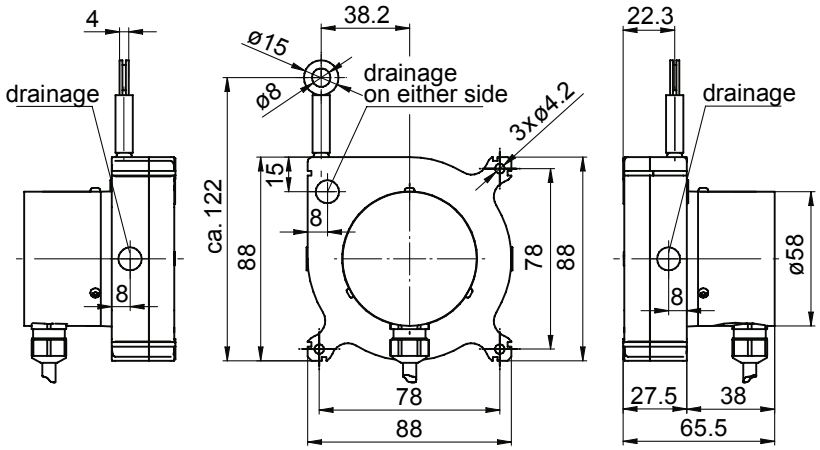


T = 1...10 µs	t_1 = 0.5...5 µs
t_2 ≤ 12...26 µs	f max. 1 MHz

BMMS K34 SSI - *MAGRES*

Dimensions

BMMS K34 with cable radial



BMMS K34 with flange connector M12