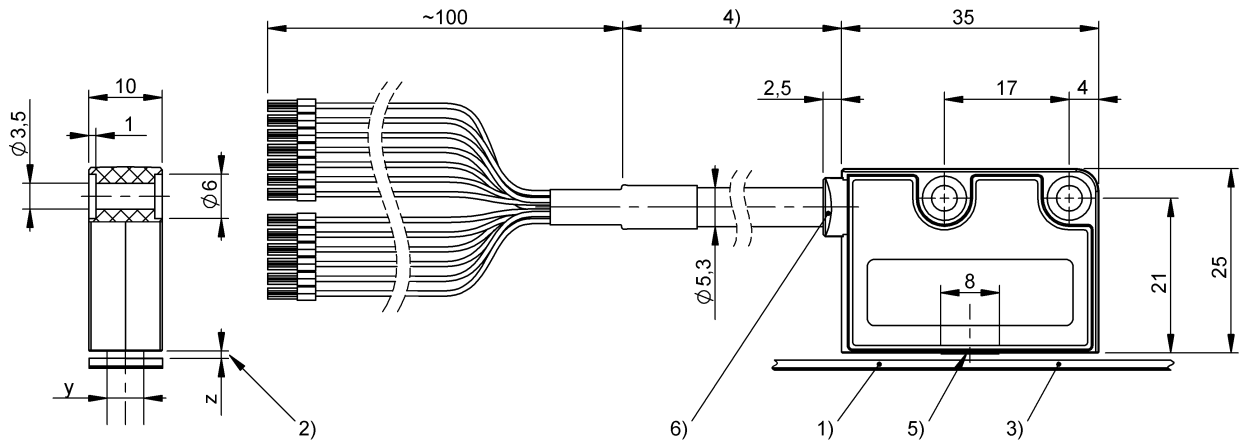
Magnetically Coded Sensors

BML-S2C0-Q61G-M624-K0-KA05
Order Code: BML05EC



1) not included in scope of delivery, 2) Distance to tape, 3) Tape, 4) Cable length, 5) Active measurement surface, 6) LED error signal

Basic features

Additional features 01	Reference signal pole-periodic
Additional features 02	with error signal
Additional features 03	Real-time capable
Application	linear/rotary motion
Approval/Conformity	CE cURus EAC WEEE
Measuring principle	incremental measuring system
Series	S2C

Electrical data

Current consumption max. at 5 V DC	100 mA
Operating voltage Ub	4.75...5.25 VDC
Overvoltage protection	no
Switch-on delay max.	500 ms

Display/Operation

Function indicator	Green LED LED red

Electrical connection

Bending radius min., fixed cable	7.5 x D
Bending radius min., flexible cable	15 x D
Cable diameter D	4.9...5.2 mm
Cable length L	5 m, Drag chain compatible
Conductor cross-section	0.08 mm²
Connection	Cable, 5 m, PUR
Connection type	Cable, 5 m, PUR
Connection version	axial
Number of conductors	12
Polarity reversal protected	no

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Environmental conditions

Altitude max.	2000 m
Ambient temperature	-20...80 °C
Cable temperature, drag chain	-25...85 °C
Cable temperature, fixed routing	-40...85 °C
Cable temperature, flexible routing	-25...85 °C
EN 55016-2-3, Radiation	Industrial areas
EN 60068-2-27, Continuous shock	100 g, 2 ms
EN 60068-2-27, Shock	100 g, 6 ms
EN 60068-2-6, Vibration	12 g, 10…2000 Hz
EN 61000-4-2, ESD	Severity Level 3
EN 61000-4-3, RFI	Severity Level 2
EN 61000-4-4, Burst	Severity Level 3
EN 61000-4-5, Surge	Severity Level 2
EN 61000-4-6, High-frequency fields	Severity Level 3
EN 61000-4-8 Magnetic fields	Severity Level 4
Ext. magnetic fields max., in operation	1 mT (no effect)
IP rating	IP67
Overall system temperature coefficient	10.5 ppm/K
Relative humidity	≤ 90 %, non-condensing
Storage temperature	-30...85 °C

Functional safety

MTTF (40 °C)	1409 a

Interface

Differential signals	yes
Error signal	yes
Interface	Digital A/B (RS422)
Reference signal	Pole-periodic
Signal sequence	A before B = rising

Material

Cable flame-resistant	UL94 V0 and IEC 60332/2
Housing material	PBT
Material jacket	PUR

Mechanical data

Dimension	10 x 25 x 35 mm
Lateral offset (Y)	±4 mm
Mounting part	Through-hole 3.5 mm
Pitch max.	±1.0 °
Pole width	10 mm
Procedure direction	Lengthwise to tape
Roll max.	±3.0 °
Weight	11 g (excluding cable)
Yaw max. ±	3.0 °

Range/Distance

Edge separation min.	4 µs
Interpolation factor	1000
Non-linearity max.	±400 µm (z=1…5 mm, y=±2 mm)
Non-linearity typ.	±550 µm (z=0.01…6.5mm, y=±4mm)
Read distance	0.01...6.5 mm
Repeat accuracy	≤ 10 µm
Resolution	10 µm (edge separation A/B)
Traverse speed max.	1.98 m/s

Wiring Diagrams

Color	
WH	+A
BN	-A
GN	+B
YE	-B
GY	+Z
PK	-Z

Color	
BU	GND
RD	U_B
BK	GND Sense
VT	U_B Sense
GY-PK	+Nerror
RD-BU	-Nerror
TR	PE