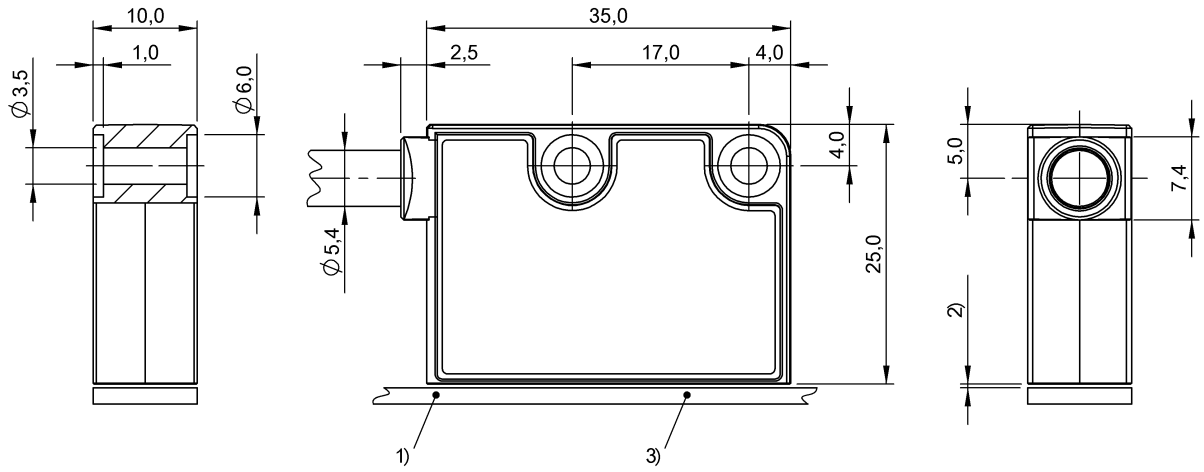
Magnetically Coded Sensors

BML-S1C0-Q53L-M400-M0-KA02

Ordercode: BML003L



1) not included in scope of delivery 2) Distance to tape 3) Tape

Electrical connection

Bending radius min., fixed cable	7.5 x D
Bending radius min., flexible cable	15 x D
Cable diameter D	5.3…5.6 mm
Cable length L	2 m, Drag chain compatible
Conductor cross-section	0.14 mm²
Connection	Cable, 2 m, PUR
Connection type	Cable, 2 m, PUR
Connection version	axial
Number of conductors	4
Polarity reversal protected	yes

Electrical data

Current consumption max. at 24 V DC	40 mA
Operating voltage Ub	10…30 VDC
Overvoltage protection	no

Environmental conditions

Altitude max.	2000 m
Ambient temperature	-20…80 °C
Cable temperature, drag chain	-25…80 °C
Cable temperature, fixed routing	-25…80 °C
Cable temperature, flexible routing	-25…80 °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 3
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)
Protection degree	IP67
Relative humidity	≤ 90 %, non-condensing
Storage temperature	-30…85 °C
Temperature coefficient, overall system	10.5 ppm/K

Functional safety

MTTF (40 °C)	751 a

General data

Additional features 03	Real-time capable
Application	linear/rotary motion
Approval/Conformity	cURus CE EAC WEEE
Measuring principle	incremental measuring system
Series	S1C

Material

Cable flame-resistant	IEC 60332-2
Housing material	PBT
Material jacket	PUR

Mechanical data

Dimension	10 x 25 x 35 mm
Lateral offset (Y)	±1 mm
Mounting	Through-hole 3.5 mm
Pitch max.	±1.0 °

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Pole width	5 mm
Procedure direction	Lengthwise to tape
Roll max.	±3.0 °
Tangential offset (X) max.	±0.5 mm
Weight	11 g
Yaw max.	3.0 °

Output/Interface

Differential signals	no
Interface	Digital A/B (HTL)
Signal sequence	A before B = rising

Range/Distance

Edge separation min.	10 µs
Interpolation factor	50
Non-linearity max.	±100 µm
Non-linearity of sensor head, max.	±50 µm
Read distance	0.01…2 mm
Repeat accuracy	≤ 100 µm
Resolution	100 µm (edge separation A/B)
Traverse speed max.	8 m/s

For further information about the MTTF and B10d see MTTF / B10d certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Wiring Diagram

Colour	
WH	A
GN	B
BU	0 V
RD	10...30 V