



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



Basic features

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

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	5 m, drag chain compatible
Conductor cross-section	0.14 mm ²
Connection	Cable, 5 m, PUR
Connection type	Cable, 5 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 U_B	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)
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)	751 a
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Interface

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

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 part	Through-hole 3.5 mm
Pitch max.	±1.0 °
Pole width	5 mm
Procedure direction	Lengthwise to tape
Roll max.	±3.0 °
Tangential offset (X) max.	±0.5 mm
Weight	11 g (excluding cable)
Yaw max. ±	3.0 °

Range/Distance

Edge separation min.	100 µs
Interpolation factor	2.5
Non-linearity max.	±100 µm
Non-linearity of sensor head, max.	±50 µm
Read distance	0.01...2 mm
Repeat accuracy	≤ 2000 µm
Resolution	2000 µm (edge separation A/B)
Traverse speed max.	10 m/s

Wiring Diagrams (Schematic)

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