



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



Display/Operation

Function indicator Green LED

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	0.08 mm ²
Connection	Cable, 5 m, PUR
Connection type	Cable, 5 m, PUR
Connection version	axial
Number of conductors	12
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
Relative humidity	≤ 90 %, non-condensing
Storage temperature	-30...85 °C
Temperature coefficient, overall system	10.5 ppm/K

Functional safety

MTTF (40 °C)	252 a
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General data

Additional features 01	Reference signal, individually or fixed-periodic
Additional features 03	Real-time capable
Application	linear/rotary motion
Approval/Conformity	cURus CE EAC WEEE
Measuring principle	incremental measuring system
Series	S2B

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)	±0.5 mm
Mounting	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 °

Output/Interface

Differential signals	no
Interface	Digital A/B (HTL)
Reference signal	Individually or fixed-periodic
Signal sequence	A before B = rising

Range/Distance

Edge separation min.	0.11 µs
Interpolation factor	1000
Non-linearity max.	±50 µm (distance ≤ 1.0 mm)
Non-linearity of sensor head, max.	±30 µm
Read distance	0.01...2 mm
Repeat accuracy	≤ 5 µm
Resolution	5 µm (edge separation A/B)
Traverse speed max.	20 m/s

Wiring Diagrams

Colour		Colour	
WH	+A	BU	GND
BN	NC	RD	U _B
GN	+B	BK	GND Sense
YE	NC	VT	U _B Sense
GY	+Z	GYPK	NC
PK	NC	RDBU	NC