



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

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 mm ² |
| Connection | Cable, 5 m, PUR |
| Connection type | Cable, 5 m, PUR |
| Connection version | axial |
| Number of conductors | 12 |
| Polarity reversal protected | no |

Electrical data

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

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 (Schematic)

| 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 |