

50 mm Wire-Type Linear Scale Absolute Encoders (Optical)



EWLS50 Series CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

Features

- Resolution: 0.1 mm
- Maximum measurement range: 512 mm
- Various output code options: Binary, Gray code

Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

EWLS50 - 512 - ① - PN - 24

① Output code

B: Binary code

G: Gray code

Product Components

- Product
- Bolt × 2
- Instruction manual

Specifications

Model	EWLS50-512-B-PN-24	EWLS50-512-G-PN-24
Measuring range	512 mm	
Max. output pulse	5,120 division / 512 mm	
Min. resolution	0.1 mm	
Accuracy	± 0.1 / 100 mm	
Response speed	≤ 500 mm / sec	
Wire movement limit when power is OFF ⁰¹⁾	≤ ± 20 mm	
Output code	Binary	Gray
Output signal	Data, Overflow alarm (OVF)	
Control output	Parallel NPN open collector output	
Inflow current	≤ 32 mA	
Residual voltage	≤ 1 VDC≐	
Output logic	Negative logic output	
Response speed ⁰²⁾	≤ 1 μs	
Input signal	Reset signal input (Reset)	
Input level	H: 5 - 24 VDC≐, L: 0 - 1.2 VDC≐	
Input logic	Low Active, OPEN or HIGH for common use	
Input time	≥ 100 ms	
Max. response freq.	50 kHz	
Wire tensile force	0.5 to 4 N (50 to 400 g·f)	
Unit weight	≈ 450 g	
Approval	CE ENEC	

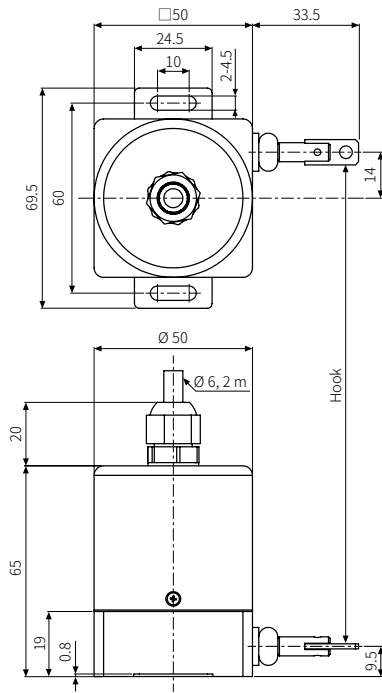
01) The product cannot process data when the power is OFF. It calibrates the data comparing values of before and after power ON status. It shall be used on the condition that wire movement limit because proper data may not be available if any wire movement occurred over ± 20mm from the position when power is off.

02) Based on cable length: 2 m, I sink = 32 mA

Power supply	12 - 24 VDC≐ ± 5% (ripple P-P: ≤ 5%)
Current consumption	≤ 150 mA (no load)
Insulation resistance	≥ 100 MΩ (500 VDC≐ megger)
Dielectric strength	750 VAC~ 50 / 60 Hz for 1 minute
Vibration	1 mm double amplitude at frequency 10 to 55 Hz (for 1 minute) in each X, Y, Z direction for 2 hours
Shock	≤ 50 G
Ambient temp.	-10 to 70 °C, storage: -25 to 85 °C (no freezing or condensation)
Ambient humi.	35 to 85%RH, storage: 35 to 90%RH (no freezing or condensation)
Connection	Axial cable type (cable gland)
Cable spec.	Ø 6 mm, 17-wire, 2 m, shield cable
Wire spec.	AWG28 (0.08 mm, 19-core), insulator diameter: Ø 0.8 mm
Material	Cap: SPCD, Body: A2024, Wire: SUS303

Dimensions

- Unit: mm, For the detailed drawings, follow the Autonics website.



■ Hook

