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ISen-H210
Magnetic Displacement Sensor

Datasheet

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CN Rev.v1.0.2

Product Overview

The ISen-H210 displacement sensor is based on the differential transformer displacement sensing principle, enabling the detection of micro displacement and deformation. This product features extremely high resolution, making it suitable for various high-precision measurement applications. It provides a resolution of 0.1 μm and an accuracy of 0.5% FS, making it one of the highest-resolution and most competitive products in the industry. The product integrates a temperature detection function, allowing real-time monitoring of the ambient temperature around the sensor. It features a wide operating voltage range, easy use and convenient installation.

It is mainly used to monitor the opening and closing displacement of gaps and cracks between connection flanges, concrete, rock and soil, soil bodies, and structural surfaces. The sensor can also be widely used in aerospace, machinery, textile, railway, coal, metallurgy, plastics, chemical industries, and research institutions, for measuring elongation, deformation, vibration, thickness, expansion, and other parameters.

Main Features

- Compact size, suitable for narrow fixtures and easy installation
- Resolution: 0.1 μm
- Accuracy: 0.25% FS
- Linearity: 0.5% FS
- Waterproof rating: IP67
- Wide range of applications

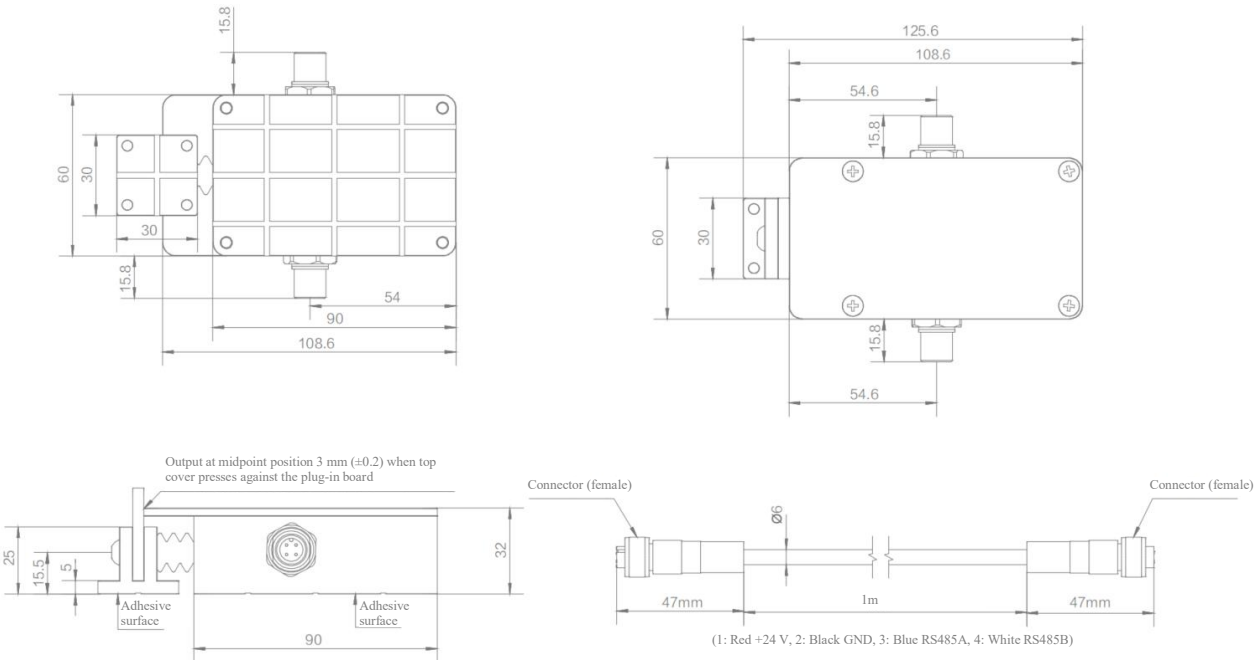
Technical Parameters

Power supply	15 ~28V DC
Operating current	20mA
Displacement range	0~6mm
Output signal	RS485 RTU, 9600, no parity
Linearity	0.5%F.S
Resolution	0.1 μm (max)
Operating temperature	-25 ℃ ~ +85 ℃
Temperature coefficient	Zero drift ≤ 0.025%/°C
	Sensitivity ≤ 0.025%/°C
IP grade	IP67

Product Dimension Diagram

Dimensional drawing:

Unit: mm

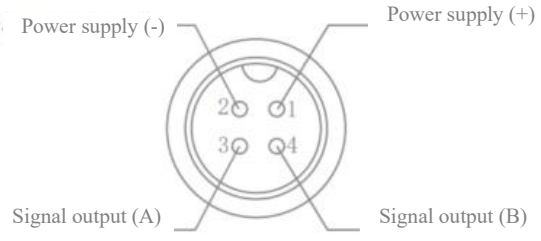


Wiring method:

Cable color definition

Red wire: Power supply (+)
Black wire: Power supply (-)
Blue wire: Signal A
White wire: Signal B

Socket pin definition



RS485 digital output

Note: The output voltage of the DC regulated power supply must be within the specified operating range (see the Performance Parameter Table). Wiring shall be carried out according to the correct connection positions. The output connection methods include direct cable output and socket-type connection.

Installation method: