

Digital Fiber Optic Sensor Setting Method



Overview

How does the MEGA mode lock function affect the operation of a sensor amplifier, and how can this setting be altered?

Key Takeaways

Digital fiber optic sensors can be adjusted by calibrating sensitivity, setting thresholds, and using preset or fine-tuning functions to ensure accurate detection. Mounting and Initial Setup

- DIN Rail Installation: Align the sensor slot with the DIN rail and press it into place until securely mounted .

- Fiber Connection: Connect the optical fiber to the launch end and the multi-core fiber to the receiving end, ensuring proper alignment .

Sensitivity Calibration

- One-Point Calibration: Press the button twice to calibrate the sensor to the current light intensity .

- Automatic Sensitivity Adjustment: Some sensors allow automatic calibration while the workpiece passes through, useful for continuous line operations .

- Fine Adjustment: Use the manual or button to adjust the sensitivity to a desired threshold, compensating for dust, dirt, or light intensity variations .

Preset and Threshold Settings

- Preset Function: Press the button to set a reference value. Holding the button can disable the function .

- **Threshold Range:** Use 1-point or 2-point teaching to set the detection threshold. For 2-point teaching, select objects with different light intensities to define low and high thresholds .

- **Percentage Calibration:** Some sensors allow setting a percentage of light intensity (e.g., 10–15%) to define detection sensitivity .

Advanced Adjustments

- **High-Speed Mode:** Activate high-speed response (e.g., 50µs) via the and manual buttons for fast detection applications .

- **Factory Reset:** Press and hold and simultaneously for 3 seconds, then follow the display prompts to initialize the sensor .

- **Key Lock Function:** Lock settings to prevent accidental changes after calibration .

Practical Tips

- Always verify the sensor output after adjustments by testing with actual workpieces.

- Clean the fiber ends regularly to maintain consistent light intensity.

- Use the sensor's indicators (e.g., PST, DTM, and current display) to monitor calibration and detection status . By following these steps, you can ensure your digital fiber optic sensor is properly adjusted for accurate and reliable operation in your application.

Article Content

FS-N18N Digital Fiber Sensor Manual | PDF | Optical Fiber | Calibration

How does the MEGA mode lock function affect the operation of a sensor amplifier, and how can this setting be altered? The MEGA

KEYENCE FS-N10 Series Digital Fiber Sensor Instruction Manual

Instruction manual for the KEYENCE FS-N10 Series Digital Fiber Sensor, covering quick start, cabling, mounting, calibration

Digital Fiber Optic Sensor/Amplifier Wiring and Setting

working principle:Fiber optic sensors use the propagation characteristics of light to detect or measure various physical and chemical

Digital Fiber Sensor Amplifier FX-505 -C2

This is the method to conduct the 3-point teaching (P-1, P-2, P-3) and to set the threshold range by setting the threshold value (1_SL)

Fiber Sensors

What Is a Fiber Sensor? A Fiber Sensor is a type of Photoelectric Sensor that enables detection of objects in narrow locations by

CSM_FiberSensor_TG_E_2_1

Optical fiber is comprised of a central core with a high refractive index surrounded by cladding with a low refractive index. When light

Optical Fiber Sensors Guide

An optical fiber sensing system is basically composed of a light source, optical fiber; a sensing element or transducer and a detector

Turning Fiber into a Sensing System: The Magic of Fiber Optics Sensing

Imagine a world where the Internet doesn't just connect but senses—detecting earthquakes, monitoring battery health,

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Abstract Presented in this paper is a novel digital demodulation method for fiber-optic interferometric sensors. The

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FS-N Series Sensor Setting Guide

FS-N Series Sensor Setting Guide This document provides instructions for setting sensitivity and calibrating digital fiber optic

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This document provides instructions for setting up and operating a digital RGB fiber optic sensor. It explains how to calibrate the

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How is the sensitivity setting adjusted using the two-point calibration method in FS-V31 series sensors? Two-point calibration for FS

Fiber Optic Sensor : Types, Working, Interfacing & Its Applications

Fiber optic sensor is a new branch in fiber optics in competition with the existing communication system. This is a

Fiber Optic Sensor

The interactive behaviors between the sensor and the cable are discussed regarding the impacts on the measurement performance

FX-500 Series Instructions

With optical communication it is possible to copy or cancel settings for the display adjustment or the incident light intensity. If the

Special Issue “Fiber Optic Sensors and Applications”: An Overview

We present here the recent advance in exploring new detection mechanisms, materials, processes, and applications of fiber optic

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

