

Article Overview

The Omron E3X-HD is a smart fiber optic sensor series designed for high-precision, maintenance-free detection in industrial automation, featuring Smart Power Control, Smart Tuning, and flexible network connectivity.

Key Features

- o Smart Power Control (APC + DPC): Automatically compensates for light intensity decreases caused by LED aging, dirt, or mechanical vibration, ensuring stable detection without frequent maintenance. If compensation is not possible, the DPC indicator alerts the operator .
- o GIGA RAY II Technology: Provides high detection power for large or low-reflective workpieces, such as black rubber, with improved energy efficiency and long-term reliability .
- o Smart Tuning: Simplifies setup by automatically adjusting incident light and threshold levels with a single press, allowing consistent detection regardless of operator skill or language .
- o Open Network Support: Reduces wiring work and allows external device control. Multiple units can be connected (up to 16 for E3X-CRT and 30 for E3X-ECT) for streamlined installation .

Sensor Types and Models

- o Through-beam, Reflective, and Limited-reflective: Supports various sensing methods for different applications, including high-speed, super-high-speed, and GIGA mode detection .
- o Heat-resistant Models: Available for environments up to 350°C, ensuring reliable operation in high-temperature conditions .
- o Connector Options: Pre-wired (2 m), wire-saving connectors, and M8 connectors for flexible installation .

Installation and Operation

- o Mounting: Can be mounted on DIN rails using a claw mechanism; amplifier units connect via master (E3X-CN11) and slave (E3X-CN12) connectors .
- o Wiring: Brown for DC 12-24V, Black for output, Blue for 0V. Ensure correct polarity and avoid high-voltage or corrosive environments .
- o Setup: Use Smart Tuning to set detection with/without a workpiece. Adjust incident light and threshold levels automatically for optimal detection .
- o Safety: Avoid disassembly, exposure to flammable gases, or exceeding rated voltage. Handle fiber units carefully to prevent damage .

Maintenance and Reliability



E3x-hd fiber optic sensor

- o Designed for long-term stable detection with minimal maintenance. Smart Power Control and GIGA RAY II reduce the need for frequent adjustments .
- o Discontinued at the end of October 2024, so users may need to consider replacement or alternative models for new installations .

The E3X-HD series is ideal for industrial applications requiring high-precision, low-maintenance fiber optic sensing, adaptable to various workpiece types, environmental conditions, and networked setups.

Smart Fiber Sensor Surprisingly Stable Detection with Your Finger tip. Exceptionally easy operation and stabilizing

E3X-HD Smart fiber SensorsThe E3X-HD series of fiber optic sensors from Omron are easy to operate and the stabilizing technology

Mutual interference prevention on the E3X-HD Series does function among the E3X-DA-S and E3X-MDA Fiber Amplifier Units. The

The E3X-HD -2 Series Smart Fiber Sensor is a versatile device designed to detect the presence or absence of objects. The sensor

This manual provides installation, setup, and operational guidance for the OMRON E3X-HD Series Smart Fiber Sensor. It covers

The document provides a comprehensive guide for the installation, operation, and tuning of the Omron

The E3X-HD with 1-button Smart tune set-up provides fast and simple teaching. Dual digital display and advanced features make the

Mutual interference prevention on the E3X-HD Series does not function among the E3NX-FA, E3X-DA-N, E3X-SD, or E3X-NA Fiber

Omron Automation Products Sensing Fiber Optic Sensors and Amplifiers E3X-HD E3X-HD11 5M Fiber Optic Sensors and Amplifiers

Two End Plates are provided with the Sensor Communications Unit. End Plates are not provided with the Fiber Amplifier Unit and

E3X-HD E3X-HD 8 models in this series Stable Detection Smart Fiber Amplifier Easy teaching by Smart tuning within a few seconds

E3x-hd fiber optic sensor

Download the Smart Fiber Sensor E3X-HD series instruction sheet, find answers to your questions, or learn how to use this sensor

This instruction sheet provides detailed information on installing and operating the OMRON E3X-HD series smart fiber sensors,

View and Download Omron E3X-HD Series manual online. Smart Fiber Amplifier Unit. E3X-HD Series

Detection of low-reflective workpieces such as black rubber Use the Fiber Heads that are suitable for the application environment.

Home Products Sensing Fiber Optic Sensors and Amplifiers E3X-HD E3X-HD6 Fiber Optic Sensors and Amplifiers E3X-HD6 Optical

Web: <https://bssoda.pl>

