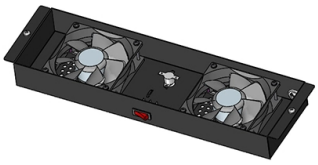
Nakk Fiber Optic Through-Beam Sensor



Overview

Through-beam sensors from Balluff serve to detect objects reliably, regardless of surface, color, material - even with a heavy gloss finish.

Key Takeaways

The Nakk Fiber Optic Through-Beam Sensor is a high-precision optical sensor that detects objects by interrupting a light beam, offering superior sensitivity, flexibility, and adaptability for industrial automation applications.

Working Principle

A through-beam fiber optic sensor consists of a separate transmitter and receiver. The transmitter emits a light beam through a fiber optic cable, and the receiver detects this light. When an object passes between the transmitter and receiver, it interrupts the beam, triggering a change in the output signal, which indicates the presence or absence of the object.

This design ensures reliable detection regardless of object color, surface, or material, including transparent or glossy items.

Fiber Optic Components

The sensor uses fiber optics made of plastic or glass: Plastic fibers (PMMA) are lightweight, flexible, and suitable for dynamic bending applications, making them ideal for confined spaces or moving parts. Glass fibers offer low signal attenuation, broad-spectrum light transmission, and high resistance to heat, chemicals, and UV exposure, making them suitable for harsh industrial environments. The fiber optics can be equipped with lenses to focus the light, reduce stray light, and extend detection range.

© 2026 BAGYOU FIBRE NETWORKS - All rights reserved

Array fiber optics can generate a linear light band for detecting irregularly shaped objects.

Features and Advantages

The Nakk Fiber Optic Through-

Beam Sensor provides: High precision and sensitivity, capable of detecting small or fast-moving objects. Versatile installation, including angled or extended needle designs for tight spaces. Two detection modes: standard transmission for general objects and high-transmission for transparent materials like glass or films.

Compatibility with standard fiber optic amplifiers and extendable fiber cables for flexible setups. Robust performance in diverse industrial applications, including electronics, automotive, packaging, food processing, and pharmaceuticals.

Applications

This sensor is widely used in industrial automation for: Production line monitoringTransparent object detectionConfined space sensingHigh-speed object trackingQuality assurance and inspection systems Its customizable configurations and environmental adaptability make it suitable for both standard and challenging detection tasks.

Installation Considerations

Ensure proper alignment between the transmitter and receiver for accurate detection. Select the appropriate fiber type (plastic or glass) based on environmental conditions and bending requirements. Use add-on lenses or array fiber optics if extended range or broader detection areas are needed.

The Nakk Fiber Optic Through-

Beam Sensor combines precision, flexibility, and reliability, making it an essential component for modern automated systems requiring accurate and efficient object detection.

© 2026 BAGYOU FIBRE NETWORKS - All rights reserved

Article Content

Through-beam sensors

Through-beam sensors from Balluff serve to detect objects reliably, regardless of surface, color, material - even with a heavy gloss finish. They consist of separate

Fiber optic through beam sensor

All information about the E20606 at a glance. We assist you with your requirements. Technical data Mounting and Installation Instructions CAD drawings Compatible ...

Fiber Optic Sensors | KEYENCE America

This is a series of fiber optic sensor heads designed to be connected to a fiber optic sensor amplifier. The FU Series offers a wide variety of options including thrubeam, reflective, retro-reflective and

Through-Beam

The emitter sends a beam of light to the receiver, which detects a target when the beam is blocked. These sensors provide the longest sensing distances and high

Through Beam Fiber Optic Sensors – Mouser

Through Beam Fiber Optic Sensors are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for Through Beam Fiber Optic Sensors.

Through-Beam Fiber Optic Sensors

Fiber optic sensor cables carry the light signals created and detected by the amplifier so that remote or specific areas can be monitored. They are made with different connectors that must be used with a

Thrubeam Type Laser Detection Sensor

IB Series thrubeam-type laser detection sensors cater to a diverse range of applications by differentiating received light intensity with high accuracy. This

Through beam fiber-F&C sensors

Meet the special requirements of high speed, high precision, energy saving and high temperature resistance.

Fiber optic sensors and fiber optics | Baumer USA

A fiber optic sensor and two fiber optics made of plastic or glass fibers make up a fiber optic system. The sensor contains a light source (transmitter), typically an

Array Through-beam Fiber Optic Sensor

© 2026 BAGYOU FIBRE NETWORKS - All rights reserved

Array Through-beam Fiber Optic Sensor This Array Fiber optical sensor is ideal for a wide range of industries, including electronics manufacturing, packaging inspection, automotive production,

Through-Beam Fiber Optic Sensors

Fiber optic sensors detect the presence of objects using highly focused light transmitted through a fiber optic cable and detected with a light sensor. Due to the light''s tight focus, they can detect subtle or

Through beam fiber-F&C sensors

Through beam fiber 1. The amplifier is equipped with optical fiber, which can detect the presence or absence of opaque or translucent objects on the assembly line; 2. New patented products; 3. A

Fiber optic through beam sensor

Fiber optic through beam sensor E20703 FE-11-EPV-M4/F1X1/2M For installation with limited mounting space Operation as through-beam sensor Long range For cutting to size Small bending radius

Fiber optic through beam sensor

For installation with limited mounting space Operation as through-beam sensor With 90° deflection of the light beam for use where space is limited For cutting to size Small bending radius

Omron E32-T16WR Fiber Optic Sensor | Features & Guide

Examine the Omron E32-T16WR fiber optic through-beam sensor. Learn its specs, features, amplifier options, and applications in this detailed

Fiber Optic Radial Displacement Sensor-Based a Beam-Through

A fiber optics displacement sensor based on a beam-through technique has wide application due its simplicity, high accuracy, and immune to electromagnetic interference. The

PANASONIC Fiber Optic Sensor, Through Beam,

Buy the original PANASONIC Fiber Optic Sensor, Through Beam, Threaded Type, 1.13 m for your applications.

FT-A11 PANASONIC, Fiber Optic Sensor, Through Beam, Wide Beam ...

Buy FT-A11 - PANASONIC - Fiber Optic Sensor, Through Beam, Wide Beam. element14 India offers fast quotes, same day dispatch, fast delivery, wide inventory, datasheets & technical support.

© 2026 BAGYOU FIBRE NETWORKS - All rights reserved

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: https://bagyou.es
Technical inquiry: https://bagyou.es/project-enquiry.html

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

© 2026 BAGYOU FIBRE NETWORKS - All rights reserved