FIBER SENSORS

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PHOTOELECTRIC

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SENSOR OPTIONS SIMPLE WIRE-SAVING UNITS WIRE-SAVING SYSTEMS

MEASUREMENT SENSORS

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LIGHT CURTAINS / SAFETY PRESSURE / FLOW SENSORS INDUCTIVE PROXIMITY SENSORS PARTICULAR USE SENSORS

SENSORS

MICRO PHOTOELECTRIC SENSORS

# **Digital Fiber Sensor** SERIES



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# Just "Look" and "Turn", Simple, easy-to-use fiber sensor

### Incident light intensity and threshold value are displayed simultaneously

The incident light intensity and threshold value can be checked at the same time with no operations needed. In addition, no complex mode settings are needed when the values are adjusted.

#### Adjustment variations according to the individual have been eliminated

Accurate control of the adjuster threshold values by using numerical values is possible due to the digital display. This allows anybody to perform the same settings.

## Easy-to-understand operating panel layout

The threshold value adjuster and operation mode switch are large and easy to see, and they can be operated with the same sensitivity as general-purpose photoelectric sensors. Functions which are not commonly used can be operated using a non-obtrusive setting switch.



## Threshold values can be changed smoothly

This sensor uses the R.S.S.\* adjuster with a compact encoder inside. The sensitivity amount changes depending on the rotation speed of the adjuster, so that adjustment can be carried out speedily.

\* Rotation Speed Sensitivity







Adjustment in units of 1 digit is also easy No need for the fine changes in force required for photoelectric sensors.



FX-410 FX-311

FX-301-F7/ FX-301-F

### Large endless adjuster

New concept

Standard screwdrivers can be used to turn the adjuster as well as precision screwdrivers. In addition, an "endless" mechanism is used which eliminates the possibility of any damage being caused by turning the adjuster too far.



#### Beam power greatly increased to give strong performance under adverse environments Red LED type

The beam power has been greatly increased. This means a longer sensing distance and less trouble from problems such as dust. These sensors have ample performance for workplace needs.



### Improved stability over both long and short terms Red LED type

The red LED type sensors have a "four-chemical emitting element" which maintains stability of light emissions for long-term operation. Furthermore, all models have an "APC (Auto Power Control) circuit" which improves stability at times such as when the power is turned on. These features improve overall stability compared to previous models.

#### Stable sensing comparison



#### Excellent workability and ease of maintenance

The same quick-connection cable that is used for sensors such as the FX-300 series of digital fiber sensors is used. This means that they can be used together with other types of sensors such as laser sensors, and the number of power supply cables can be reduced.

## FX-412 can be turned by finger! New concept

The adjuster can be turned directly by finger, without the need for a screwdriver.



#### Three types are available, with red, blue and green light

Different sensors can be selected to suit the application.



#### Color combinations that can be discerned during mark sensing

-							
Back- color ground color	White	Yellow	Orange	Red	Green	Blue	Black
White		•	•	••	•••	•••	•••
Yellow	•		•	٠	•••	•••	•••
Orange	٠	٠		••	•••	•••	•••
Red	••	•	••		•	••	••
Green	•••	•••	•••	•		•	•
Blue	•••	•••	•••	••	•		•
Black	•••	•••	•••	••	•	•	$\searrow$

Fiber sensor FX-411G

Red LED type :Blue LED type :Green LED type

Fiber sensor FX-411

Output line 2

FX-411B

Up to a maximum 16 sensors can be connected togethe

A single output line is used, so that wiring can be greatly reduced and space savings can be obtained. The sensors can be connected together with other sensors such as the FX-300 series of digital fiber sensors and the GA-311 of inductive proximity sensors. In addition, the SC series of sensor PLC connection units with MIL connector compatibility can also be used to further reduce the amount of wiring.

Output line 3 •••••• Output line 16

Sub cable

Laser sensor LS-401

Output line 1

cable Main cable

## **Connector type**



Quick-connection cables can be used for power supply cascade wiring. Both main and sub units utilize the same amplifier body.



FX-410 FX-311 FX-301-F7 FX-301-F



WIRE-SAVING UNITS WIRE-SAVING

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**UV CURING** 

Selection Guide

Fibers

FX-500

FX-100

FX-300

SYSTEMS

MICRO PHOTOELECTRIC SENSORS AREA SENSORS

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SENSORS

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LIGHT CURTAINS / SAFETY COMPONENTS PRESSURE / FLOW INDUCTIVE PROXIMITY

USE SENSORS

PARTICULAR

SYSTEMS