

FIBER  
SENSORSLASER  
SENSORSPHOTOELECTRIC  
SENSORSMICRO  
PHOTOELECTRIC  
SENSORSAREA  
SENSORSLIGHT CURTAINS /  
SAFETY  
COMPONENTSPRESSURE /  
FLOW  
SENSORSINDUCTIVE  
PROXIMITY  
SENSORSPARTICULAR  
USE SENSORSSENSOR  
OPTIONSSIMPLE  
WIRE-SAVING  
UNITSWIRE-SAVING  
SYSTEMSMEASUREMENT  
SENSORSSTATIC ELECTRICITY  
PREVENTION  
DEVICESLASER  
MARKERS

## PLC

HUMAN MACHINE  
INTERFACESENERGY CONSUMPTION  
VISUALIZATION  
COMPONENTS

## FA COMPONENTS

MACHINE VISION  
SYSTEMSUV CURING  
SYSTEMSSelection  
Guide

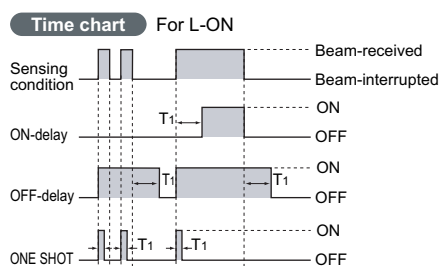
## Fibers

Fiber  
Amplifiers**FX-500****FX-100****FX-300****FX-410****FX-311****FX-301-F7/  
FX-301-F****Contributing to device miniaturization**

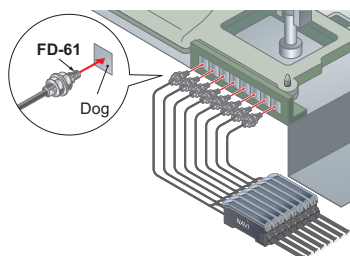
This fiber sensor is the smallest among the dual digital display types, contributing to device miniaturization.

**Equipped with 3 types timers**

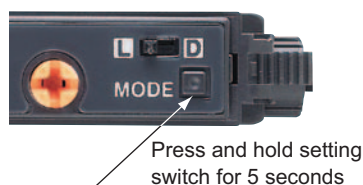
Equipped with OFF-delay / ON-delay / ONE SHOT timer. (Timer period: 1 ms to 3 sec. approx.)

**Interference prevention for up to 8 sets fiber heads (for U-LG)**

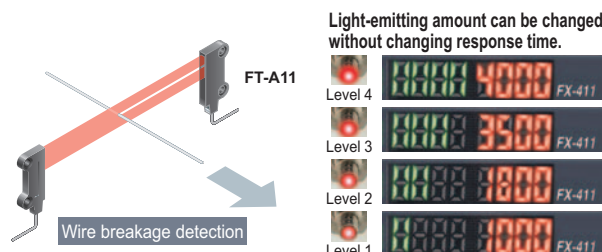
The optical communication function allows up to a maximum of eight sets of fiber heads (four sets for FAST and STD settings) to be installed in contact with each other without mutual interference occurring. (Set automatically when power is turned on.)

**Key lock function prevents wrong operation**

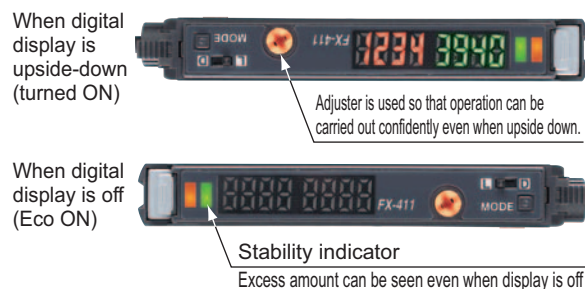
This prevents the operator from changing the threshold value by mistake.

**Ideal for dealing with saturation / Light-emitting amount selection function****Red LED type** **New concept**

In cases where the incoming light level can become saturated, such as during close-range sensing or when sensing transparent or minute objects, the sensor's light-emitting amount can be adjusted to provide more stable sensing without changing the response time.

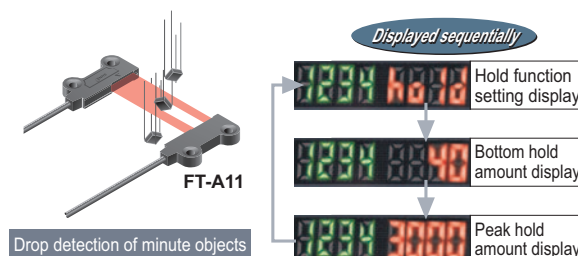
**Digital display upside-down / off function**

The digital display can be turned upside-down if required to suit the setup location. In addition, a stability indicator is also provided, so that the amount of light-receiving excess can be checked even when the display is turned off.

**Hold function**



Peak and bottom hold values for the incident light intensity can be displayed. This is useful for checking the incident light intensity during tasks such as drop detection.

In addition, the peak and bottom values can be checked while looking at the threshold value, which makes adjustment much easier.



**ORDER GUIDE****Amplifiers**

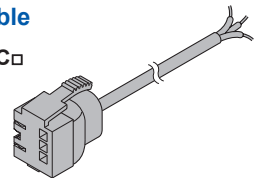
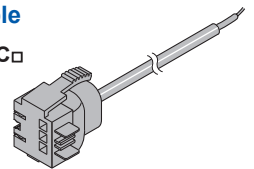
Quick-connection cable is not supplied with the amplifier. Please order it separately.

Type	Appearance	Model No.	Emitting element	Output
NPN output		<b>FX-411</b>	Red LED	NPN open-collector transistor
		<b>FX-411B</b>	Blue LED	
		<b>FX-411G</b>	Green LED	
PNP output		<b>FX-411P</b>	Red LED	PNP open-collector transistor
		<b>FX-411BP</b>	Blue LED	
		<b>FX-411GP</b>	Green LED	
NPN output		<b>FX-412 (Note)</b>	Red LED	NPN open-collector transistor
		<b>FX-412B (Note)</b>	Blue LED	
		<b>FX-412G (Note)</b>	Green LED	

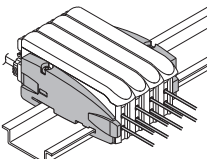
Note: The **FX-412** has a threshold value adjuster that can be adjusted with your fingers.**Quick-connection cables**

Quick-connection cable is not supplied with the amplifier. Please order it separately.

Type	Model No.	Description	
Main cable (3-core)	<b>CN-73-C1</b>	Length: 1 m <b>3.281 ft</b>	0.2 mm <sup>2</sup> 3-core cabtyre cable, with connector on one end Cable outer diameter: $\varnothing 3.3$ mm $\varnothing 0.130$ in
	<b>CN-73-C2</b>	Length: 2 m <b>6.562 ft</b>	
	<b>CN-73-C5</b>	Length: 5 m <b>16.404 ft</b>	
Sub cable (1-core)	<b>CN-71-C1</b>	Length: 1 m <b>3.281 ft</b>	0.2 mm <sup>2</sup> 1-core cabtyre cable, with connector on one end Cable outer diameter: $\varnothing 3.3$ mm $\varnothing 0.130$ in
	<b>CN-71-C2</b>	Length: 2 m <b>6.562 ft</b>	
	<b>CN-71-C5</b>	Length: 5 m <b>16.404 ft</b>	

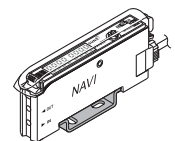
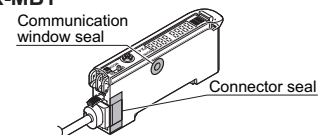
**Main cable**• **CN-73-C****Sub cable**• **CN-71-C****End plates**

End plates are not supplied with the amplifier. Please order them separately when the amplifiers are mounted in cascade.

Appearance	Model No.	Description
	<b>MS-DIN-E</b>	When cascading multiple amplifiers, or when it moves depending on the way it is installed on a DIN rail, these end plates clamp amplifiers into place on both sides. Make sure to use end plates when cascading multiple amplifiers together. <b>Two pcs. per set</b>

**OPTIONS**

Designation	Model No.	Description
Amplifier mounting bracket	<b>MS-DIN-2</b>	Mounting bracket for amplifier
Fiber amplifier protection seal	<b>FX-MB1</b>	10 sets of 2 communication window seals and 1 connector seal Communication window seal: It prevents malfunction due to transmission signal from another amplifier, as well as, prevents effect on another amplifier. Connector seal: It prevents contact of any metal, etc., with the pins of the quick-connection cable.

**Amplifier mounting bracket**• **MS-DIN-2****Fiber amplifier protection seal**• **FX-MB1**

## FIBER SENSORS

## LASER SENSORS

## PHOTO-ELECTRIC SENSORS

## MICRO PHOTO-ELECTRIC SENSORS

## AREA SENSORS

## LIGHT CURTAINS / SAFETY COMPONENTS

## PRESSURE / FLOW SENSORS

## INDUCTIVE PROXIMITY SENSORS

## PARTICULAR USE SENSORS

## SENSOR OPTIONS

## SIMPLE WIRE-SAVING UNITS

## WIRE-SAVING SYSTEMS

## MEASURE-MENT SENSORS

## STATIC ELECTRICITY PREVENTION DEVICES

## LASER MARKERS

## PLC

## HUMAN MACHINE INTERFACES

## ENERGY CONSUMPTION VISUALIZATION COMPONENTS

## FA COMPONENTS

## MACHINE VISION SYSTEMS

## UV CURING SYSTEMS

## Selection Guide

## Fibers

## Fiber Amplifiers

**FX-500****FX-100****FX-300****FX-410****FX-311****FX-301-F7/****FX-301-F**