

FIBER SENSORS

LASER SENSORS

PHOTOELECTRIC SENSORS

MICRO PHOTOELECTRIC 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

MEASUREMENT 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

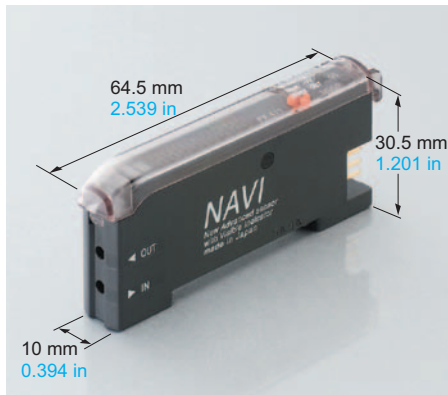
FX-410

FX-311

FX-301-F7/ FX-301-F

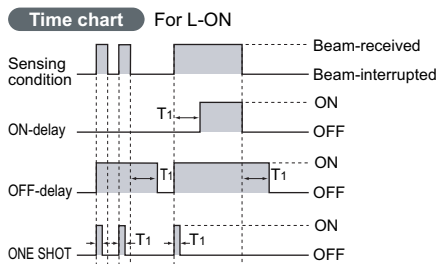
Contributing to device miniaturization

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



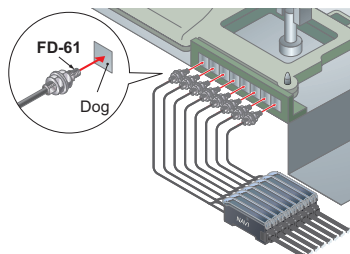
Equipped with 3 types timers

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



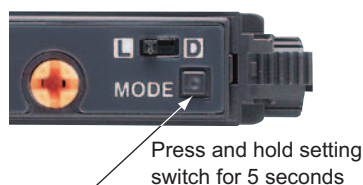
Interference prevention for up to 8 sets fiber heads (for U-LG)

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.)



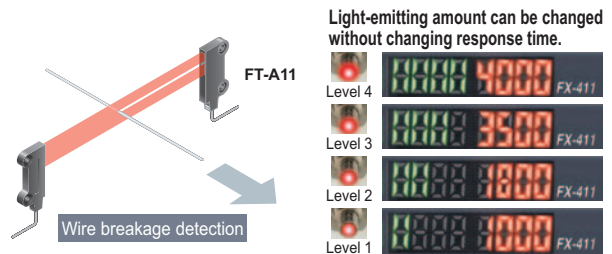
Key lock function prevents wrong operation

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



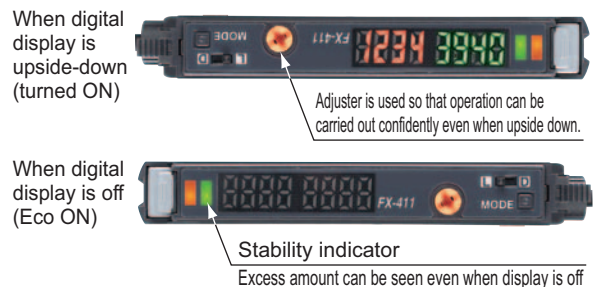
Ideal for dealing with saturation / Light-emitting amount selection function **Red LED type** **New concept**

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

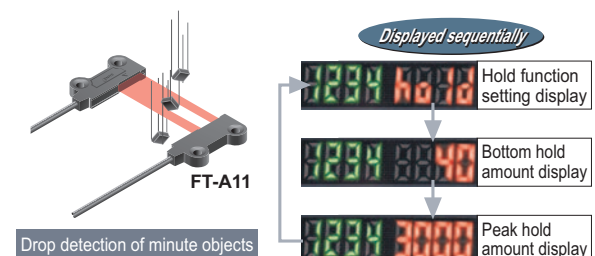
The digital display can be turned upside-down if required to suit the setup location. In addition, a stability indicator is also provided, so that the amount of light-receiving excess can be checked even when the display is turned off.



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		FX-411	Red LED	NPN open-collector transistor
		FX-411B	Blue LED	
		FX-411G	Green LED	
PNP output		FX-411P	Red LED	PNP open-collector transistor
		FX-411BP	Blue LED	
		FX-411GP	Green LED	
NPN output		FX-412 (Note)	Red LED	NPN open-collector transistor
		FX-412B (Note)	Blue LED	
		FX-412G (Note)	Green LED	

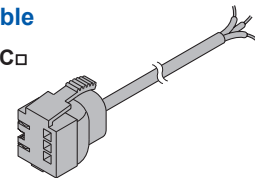
Note: The **FX-412**□ has a threshold value adjuster that can be adjusted with your fingers.

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

Type	Model No.	Description	
Main cable (3-core)	CN-73-C1	Length: 1 m 3.281 ft	0.2 mm ² 3-core cabtyre cable, with connector on one end Cable outer diameter: ø3.3 mm ø0.130 in
	CN-73-C2	Length: 2 m 6.562 ft	
	CN-73-C5	Length: 5 m 16.404 ft	
Sub cable (1-core)	CN-71-C1	Length: 1 m 3.281 ft	0.2 mm ² 1-core cabtyre cable, with connector on one end Cable outer diameter: ø3.3 mm ø0.130 in
	CN-71-C2	Length: 2 m 6.562 ft	
	CN-71-C5	Length: 5 m 16.404 ft	

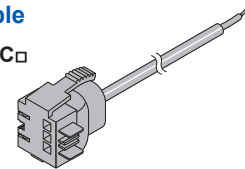
Main cable

- **CN-73-C□**

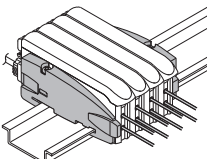


Sub cable

- **CN-71-C□**



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

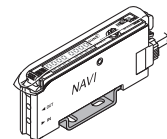
Appearance	Model No.	Description
	MS-DIN-E	When cascading multiple amplifiers, or when it moves depending on the way it is installed on a DIN rail, these end plates clamp amplifiers into place on both sides. Make sure to use end plates when cascading multiple amplifiers together. Two pcs. per set

OPTIONS

Designation	Model No.	Description
Amplifier mounting bracket	MS-DIN-2	Mounting bracket for amplifier
Fiber amplifier protection seal	FX-MB1	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.

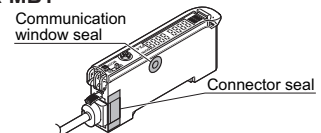
Amplifier mounting bracket

- **MS-DIN-2**



Fiber amplifier protection seal

- **FX-MB1**



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