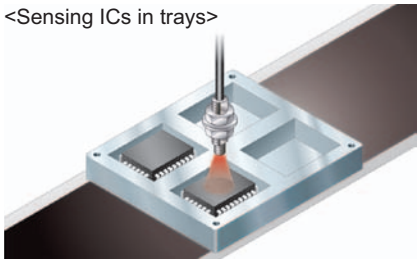
Simplified systems using new operating modes

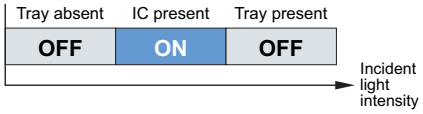
FX-305

A window comparator mode and differential sensing mode have been added. These modes make it easy to carry out sensing tasks that previously required multiple sensors or involved complex threshold settings.

• Window comparator mode

<Sensing ICs in trays>

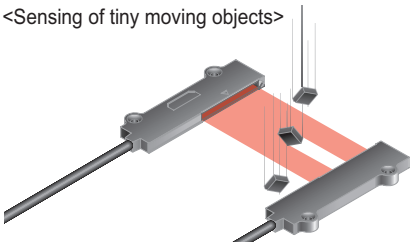


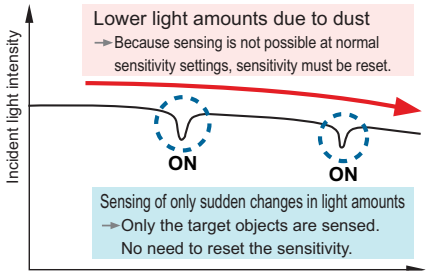


Upper and lower limits for threshold values can be set so that the incident light intensity can turn on and off within those ranges. Single output is used, so that only one cable is required, and no PLC processing is required either.

• Differential sensing mode

<Sensing of tiny moving objects>



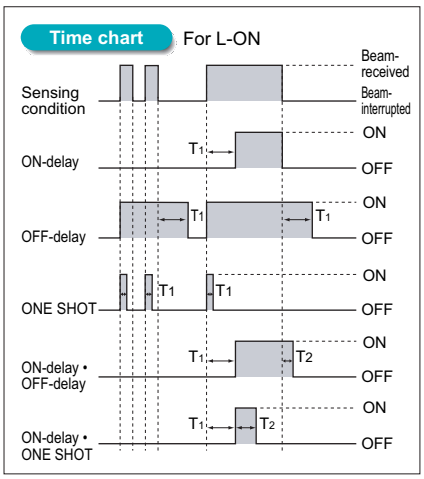


Equipped with 5 types timers

FX-305

The **FX-305** includes the same ON-delay / OFF-delay / ONE SHOT timer as the **FX-301**(**-HS**), as well as an ON-delay • OFF-delay timer and an ON-delay • ONE SHOT timer. A wide variety of timer control operations can be carried out by these fiber sensors alone.

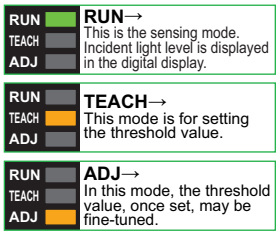
Timer period
Output 1: 0.5 to 9,999 ms (variable)
Output 2: 0.5 to 500 ms (variable)

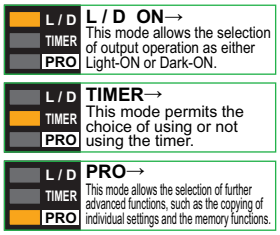


Even beginners can quickly learn how to use the MODE NAVI

All models

MODE NAVI uses six indicators to display the amplifier's basic operations. The current operating mode can be confirmed at a glance, so even a first time user can easily operate the amplifier without becoming confused.

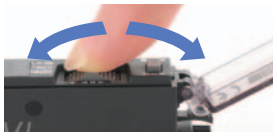




Easy confirming of threshold value settings

FX-301 FX-301-HS FX-305

The threshold value can be confirmed by turning the jog switch even during RUN mode.



Jog switch is turned

The threshold value is displayed

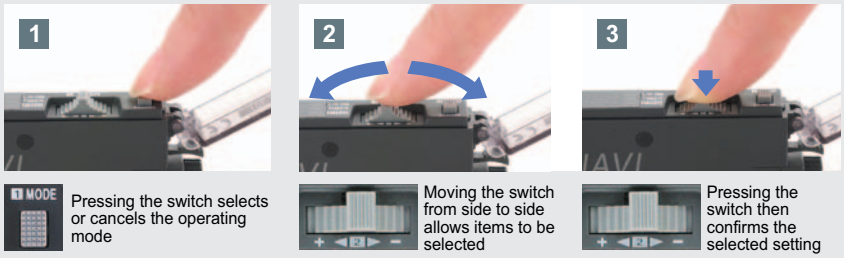
Left: **FX-301**(**-HS**) Output 1 for **FX-305**
Right: Output 2 for **FX-305**

The use of only two switches makes for very simple operations

All models

Only two switches, the large jog switch and the large MODE key, are required for operation. You can operate it simply by the 3 steps shown on the right.

- **Large MODE key**
- **Large jog switch**



1 Pressing the switch selects or cancels the operating mode

2 Moving the switch from side to side allows items to be selected

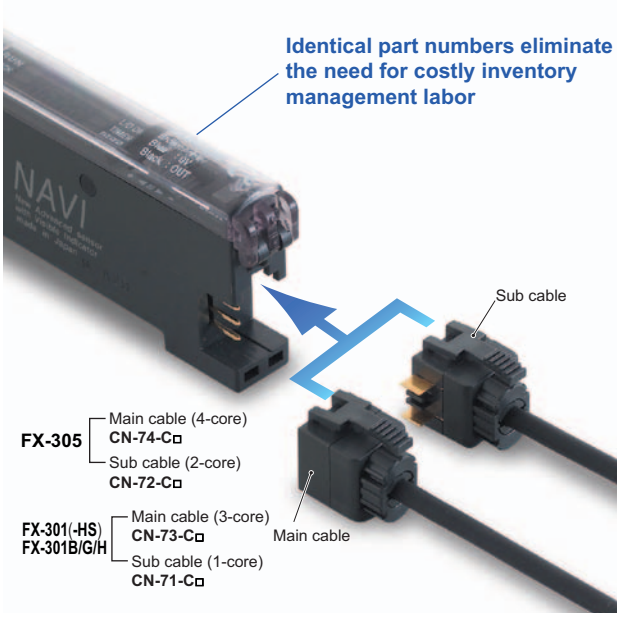
3 Pressing the switch then confirms the selected setting

A quick-connection cable saves wiring and work-hours

Connector type

One unit can be used as either a main unit or sub unit

The amplifier unit can be used as either a main unit or a sub unit. This feature allows for easy mounting in the side-by-side configuration. The main and sub unit functions are distinguished only by the proper use of the main cable and the sub cable.
Moreover, inventory management and maintenance is simplified.



An optical communication function allows up to *16 sensors to be adjusted simultaneously

FX-301 FX-305

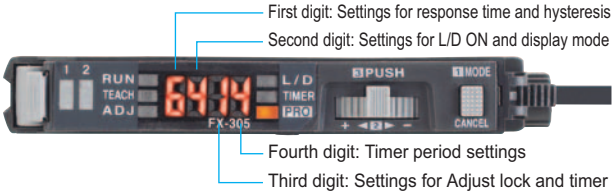
The optical communication function allows the data that is currently set to be copied and saved all at once for all amplifiers connected together from the right side. This greatly reduces troublesome setup tasks and makes setup much smoother. In addition, troublesome adjustment operations at times such as when replacing sensors can also be carried out easily and data can also be copied and stored using the optical communication function.

* Use the optical communication function for only the same types of sensors. Furthermore, the **FX-301-HS** is not equipped with optical communication function capability.

Settings can be entered directly using numerical input

All models

Every function can be directly set merely by the input of a four digit code (numbers) from the code table. This convenient feature is easy to set up. In the event that settings are accidentally changed at the operating site, merely entering the correct code can restore the original settings. This results in easy and quick maintenance.



Communication unit improves equipment starting up and maintenance

FX-301 FX-305

External input unit for digital sensor

FX-CH2

Teaching and changing settings can be performed by using the PLC and touch panel.

Various settings and switching of up to 16 units of digital fiber sensors can be accomplished at once without operating the actual sensors themselves, but via external signals, such as the PLC, touch panel, and push buttons.

<Main functions>

- Batch teaching
- Key lock setting
- Batch loading / saving of the data bank

Refer to our website for details

Upper communication unit for digital sensor

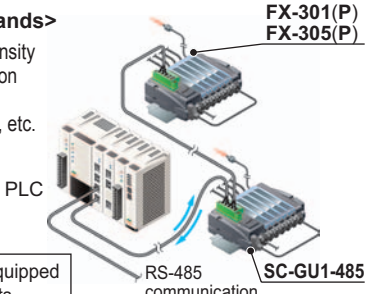
SC-GU1-485

We now offer remote maintenance for digital sensors!

The communication unit enables inputs to the digital fiber sensors (such as teaching and data bank switching) to be carried out via a PLC or a personal computer, and also allows confirming of the incident light intensity an output status for the fiber sensors. This greatly improves workability during equipment starting up and maintenance.

<Communicable commands>

- Sensor incident light intensity
- Sensor settings verification
- Sensor output status
- Threshold value settings, etc.



Compatible with all PLCs equipped with RS-485 compatible units

Refer to **SC-GU1-485** pages for details