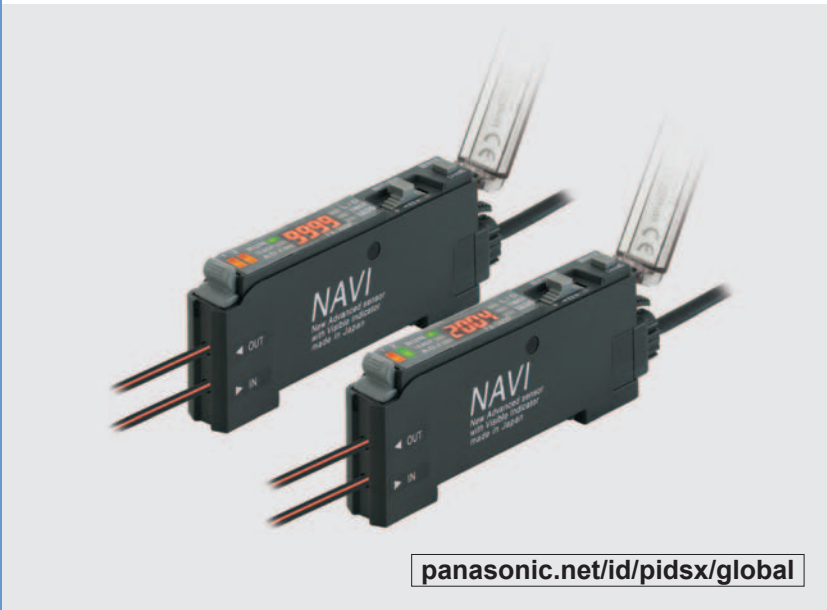


Digital Fiber Sensor FX-300 SERIES

- 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

Related Information	■ General terms and conditions..... F-7	■ Sensor selection guide..... P.3~
	■ SC-GU1-485..... P.1009~	■ Glossary of terms..... P.1455~
	■ General precautions P.1458~	■ Korea's S-mark..... P.1506



* Passed the UL 991 Environment Test

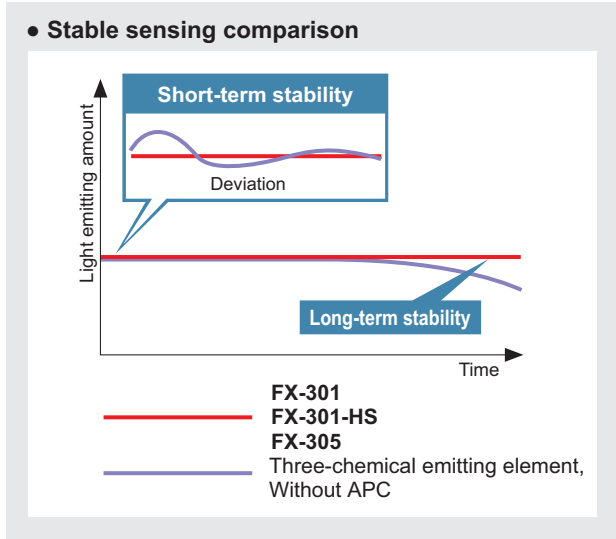
* UL 61010C-1 compatible, Passed the UL 991 Environment Test based on SEMI S2-0200. [Category applicable for semiconductor manufacturing: TWW2, Process Equipment] [Applicable standards: UL 61010C-1] [Additional test / evaluation standards as per intended use: UL 991, SEMI S2-0200]



Constant advances achieving significant improvement of sensing performance

Stable sensing over long and short periods FX-301 FX-301-HS FX-305

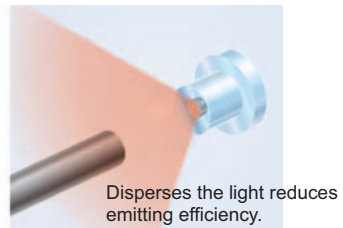
In addition to a "four-chemical emitting element" which suppresses changes in the light emitting element over time so that a stable level of light emission can be maintained over long periods, a "APC (Auto Power Control) circuit" has also been adopted afresh. The light emitting amount can be controlled in minute degrees so that even changes occurring over very short periods can be handled, allowing stable sensing performance by suppressing deviations in light emitting amounts caused by changes in the ambient environment that could not previously be suppressed.



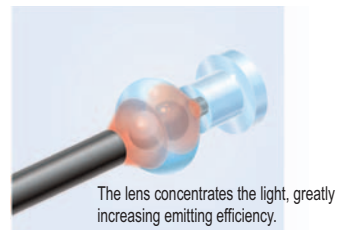
Even greater sensing range All models

Adoption of a "double coupling lens" that increases emission efficiency to its maximum limits and greatly increases sensing range. Sensing ranges with small diameter fibers and ultra-small diameter fibers, which have become very popular due to the miniaturization of chip components, have been increased by 50 % over previous values achieved with other amplifiers.

• Conventional fiber sensors (Without lens)



• Double coupling lens

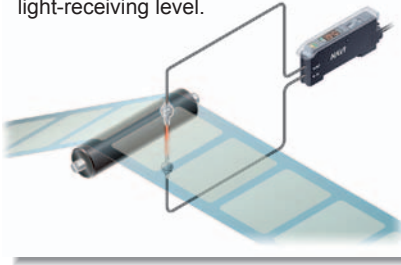


- Selection Guide
- Fibers
- Fiber Amplifiers
- FX-500
- FX-100
- FX-300
- FX-410
- FX-311
- FX-301-F7/ FX-301-F

APPLICATIONS

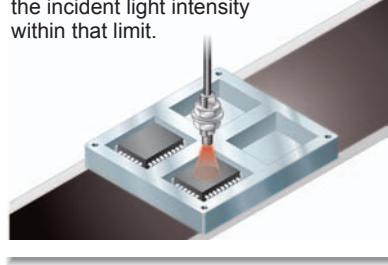
Detecting the presence or absence of labels

The light-emitting amount selection function can even stabilize detection of transparent labels that saturate the light-receiving level.



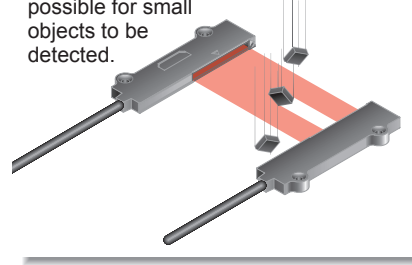
Detecting the presence or absence of ICs on a tray

You can set upper and lower limits for the threshold values using the window comparator mode and turn ON / OFF the incident light intensity within that limit.



Detecting the passage of small objects

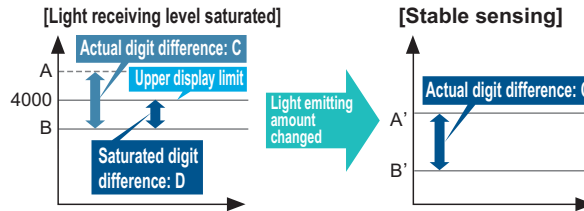
The differential sensing mode will only detect rapid changes in the amount of light, which makes it possible for small objects to be detected.



Light-emitting amount selection

FX-301 **FX-301-HS** **FX-305**

If the light receiving level becomes saturated during close-range sensing or when sensing transparent or minute objects, you can adjust the light emitting amount of the sensor to stabilize sensing **without needing to change the response time**. Sensing that previously required the response time or fibers to be changed can now be set much more easily using this function.



Light emitting amount can be changed without changing response time

Large display 9999

FX-305

Large display with 4 digits (9999). With a greater difference in digit value than previous models, threshold values can be set in units of 1 digit up to maximum 9999. Threshold setting can now be done more easily and accurately.



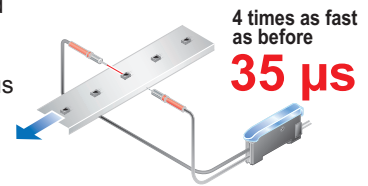
(During STDF, LONG and U-LG modes)

2.5 times previous models

Ultra high-speed 35 μs response

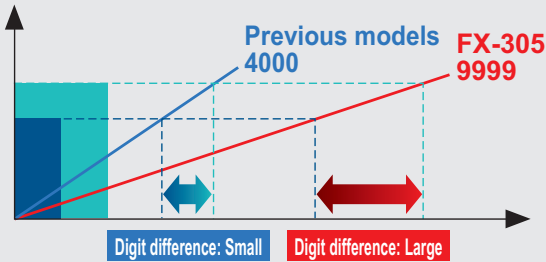
FX-301-HS **FX-305**

Ultra high-speed 35 μs response. Even small objects moving at high speeds can be sensed. In addition, at 65 μs the **FX-301** standard type and **FX-305** high-function type is also twice as fast as previous models.



Digit difference comparison

Example Digit difference between **object A** and **object B**



Ultra high-speed type FX-301-HS

(H-SP mode)

35 μs

Standard type FX-301, High-function type FX-305

(H-SP mode)

65 μs

Previous model

150 μs

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