

40th Anniversary MODEL



# FX-500

FX-500

The highest performance available

## Features

### A different stability

When used with the super quality fiber as a set, the incident light intensity variation among units is decreased to only 1/4 of that of conventional models.

### High performance

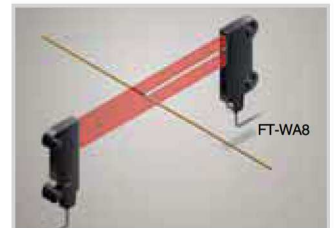
FX-500 with its ultra short response time improves productivity.

### HYPER mode incorporated

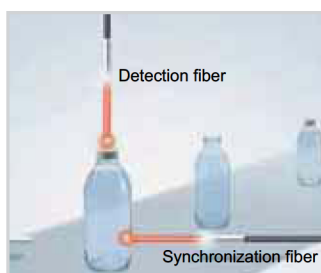
FX-500 in combination with the small diameter fiber can handle challenging detections over a super long sensing range.

### A new accuracy!

FX-500 with its accurate detection catches fractional difference in light intensity, fulfilling high precision and low-hysteresis applications.

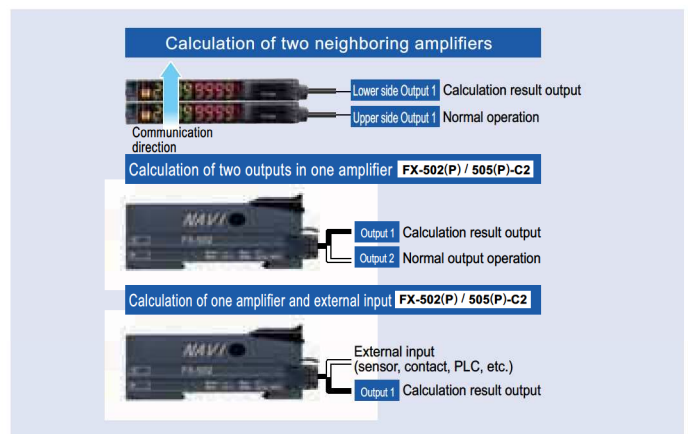


### No PLC necessary saving material and programming costs

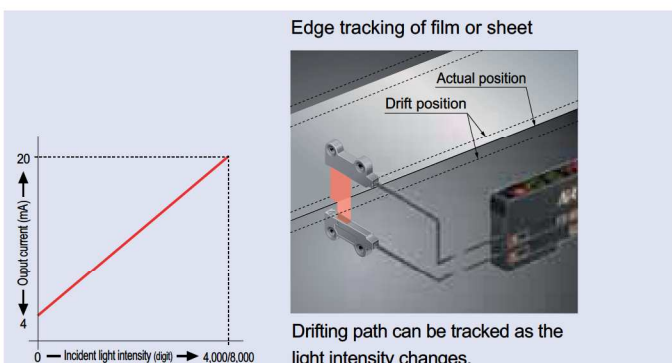


### Logical calculation functions

Three logical calculations (AND, OR, XOR), are selectable using Output 1 of multiple FX-500 series amplifiers. A PLC is not required which helps to reduce material and programming and costs.



### Analog output cable type FX505



## FX-500 Technical Specifications

	Standard type	Two outputs type	Analoge output type
NPN output PNP output	FX-501 FX-501P	FX-502 FX-502P	FX-505-C2 FX-505P-C2
Type of amplifier	Digital		
Timer function	Adjustable: 0.1ms to 999.9ms in 0.1ms steps, 1 to 9999ms in 1 ms steps, 1 to 32s in 1s steps		
Interference prevention function	Auto interference prevention function for up to 12 units or selectable response time method		
Sensing range	Depends on fiber type used		
Response time	25μs/60μs/250μs/2ms/4ms/24ms or less		
Analogue output			4 to 20mA
Output transistor	Max. 100mA		
Emitting element	Red LED (Peak emission wavelength: 650nm)		
Material	Enclosure: ABS; switch TPEE		
Rated current consumption	Normal operation: 40mA or less at 24V supply voltage Eco mode: 30mA or less at 24V supply voltage		
Protection	IP40		
Physical size (HxWxL)	34x10x75mm		
Connection method	Connector attached cable (note)		cable, 2m
Operating voltage	12-24V DC (±10%)		
Usable ambient temp.	-10°C to +55°C		
Weight approx.	70g		100g

Note: The cable for amplifier connection is not supplied as an accessor. Make sure to use the optional quick-connection cable given below.

### For FX-501(P)

Main cable (3-core): CN-73-C1 (1m), CN-73-C2 (2m), CN-73-C5 (5m)  
Sub cable (1-core): CN-71-C1 (1m), CN-71-C2 (2m), CN-71-C5 (5m)

### For FX-502(P)

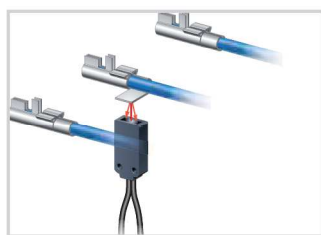
Main cable (4-core): CN-74-C1 (1m), CN-74-C2 (2m), CN-74-C5 (5m)  
Sub cable (2-core): CN-72-C1 (1m), CN-72-C2 (2m), CN-72-C5 (5m)

## Typical Applications

### Counting of IC pins



### Check crimping



### Detection of glass substrate



## ■ A quality that surpassed standard fiber

### Stable emission intensity ±10%

Variation in emission intensity of the fiber core is controlled down to less than ±10%, achieving a stable detection.



### Integrated high-precision plug

The centering precision of the fiber core attached to the inserting plug is doubled. As the insertion precision is increased, the variation among units can be greatly suppressed.



### More flexible!

Bending radius = R4mm  
[Previous was R25mm]



### More bendable!

Bending durability = 10 million times  
[Previous was 1,000 times]

