



For leak fiber only

NEW

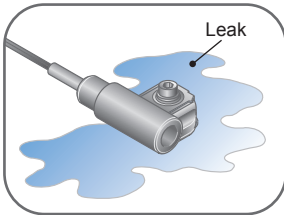
DIGITAL FIBER SENSOR

FX-301-F7

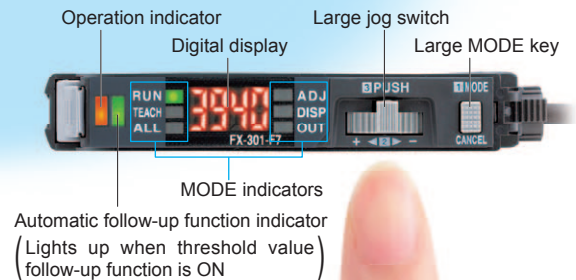
Introducing a exclusive amplifier for **FD-F705** leak fiber



Optimal settings for leak detection can be made with simple operations!

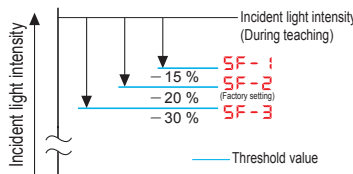


Leaking liquids can be detected instantly



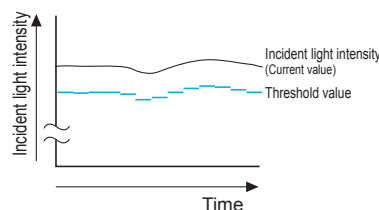
Optimal threshold value setting New function

The threshold value is automatically set to -20 % of the incident light intensity during teaching so that stable leak sensing can be carried out. In addition, the threshold value can be changed to -15 % or -30 % of the incident light intensity.



Threshold value follow-up function New function

The incident light intensity is checked at regular intervals and the threshold value is reset automatically.



* The factory default setting for this function is OFF.

Flashing function incorporated

When a leak is detected, the emitter starts flashing so users can recognize at a glance which fiber has detected the leak.

Long life and no adjustment required with a newly developed LED

A newly-developed "4 chemical element" LED minimizes light deterioration over time and enables stable sensing to be carried out for long periods.

Easy to operate with individual / collective teaching mode

Individual teaching mode (TEACH)

The optimal threshold value can be set automatically simply by setting the MODE indicator to "TEACH" and pressing the jog switch.

Collective teaching mode (ALL)

When the MODE indicator is set to "ALL", the optical communication function allows teaching to be carried out for all cascaded units. The optimum threshold value can be set for each individual amplifier.

(Other settings for the main unit are simultaneously copied to all of the sub units.)



Communication direction

Collective teaching mode is possible for 16 units max.

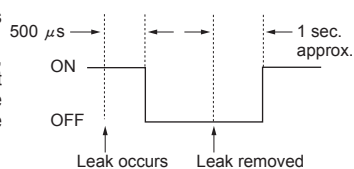
SPECIFICATIONS

Type	NPN output type	PNP output type
Item Model No.	FX-301-F7	FX-301P-F7
Applicable fiber	FD-F705	
Supply voltage	12 to 24 V DC \pm 10 % Ripple P-P 10 % or less	
Power consumption	Normal operation: 960 mW or less (Current consumption 40 mA or less at 24 V supply voltage) ECO mode: 600 mW or less (Current consumption 25 mA or less at 24 V supply voltage)	
Output	NPN open-collector transistor • Maximum sink current: 100 mA (Note 1) • Applied voltage: 30 V DC or less (between output and 0 V) • Residual voltage: 1.5 V or less [at 100 mA (Note 1) sink current]	PNP open-collector transistor • Maximum source current: 100 mA (Note 1) • Applied voltage: 30 V DC or less (between output and +V) • Residual voltage: 1.5 V or less [at 100 mA (Note 1) source current]
Output operation	OFF when leak is detected	
Short-circuit protection	Incorporated	
Response time	500 μ s or less (Note 2)	
Sensitivity setting	Individual / collective teaching	
Fine sensitivity adjustment function	Incorporated	
Ambient temperature	0 to +50 °C 32 to +122 °F (If 8 to 16 units are connected in cascade: 0 to +45 °C 32 to +113 °F) (No dew condensation), Storage: -20 to +70 °C -4 to +158 °F	
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH	
Emitting element	Red LED (Peak emission wavelength : 650 nm 0.026 mil, modulated)	
Material	Enclosure: Heat-resistant ABS, Transparent cover: Polycarbonate	
Weight	Net weight: 20 g approx.	

Notes: 1) 50 mA if five, or more, amplifiers are connected together.

2) If a leak is detected (output: OFF), since the emission has been put in blinking operation, only the response time back to ON will be delayed. (1 sec. approx.)

3) The cable for amplifier connection is not supplied as an accessory. Make sure to use the optional quick-connection cables given below.
Main cable (3-core): **CN-73-C1** (Cable length 1 m 3.281 ft), **CN-73-C2** (Cable length 2 m 6.562 ft), **CN-73-C5** (Cable length 5 m 16.404 ft)
Sub cable (1-core): **CN-71-C1** (Cable length 1 m 3.281 ft), **CN-71-C2** (Cable length 2 m 6.562 ft), **CN-71-C5** (Cable length 5 m 16.404 ft)



PRECAUTIONS FOR PROPER USE



- Never use this product as a sensing device for personnel protection.
- In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

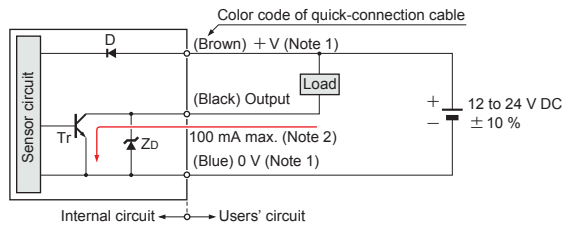
Setting items

RUN Run Normal sensing condition.	TEACH Teaching Mode for teaching with one unit.	ALL All Teaching is carried out all at once for all cascaded units.
OUT Out Mode for turning the forced output ON or OFF regardless of the incident light intensity.	DISP Display The digital display can be switched to the light up / eco / inverse mode.	ADJ Adjust Fine-adjusts the threshold value.

I/O CIRCUIT DIAGRAMS

FX-301-F7

NPN output type

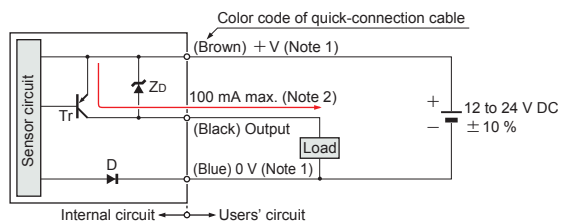


Notes: 1) The quick-connection sub cable does not have +V (brown) and 0 V (blue). The power is supplied from the connector of the main cable.
2) 50 mA max., if five amplifiers, or more, are connected in cascade.

Symbols ...D : Reverse supply polarity protection diode
ZD: Surge absorption zener diode
Tr : NPN output transistor

FX-301P-F7

PNP output type

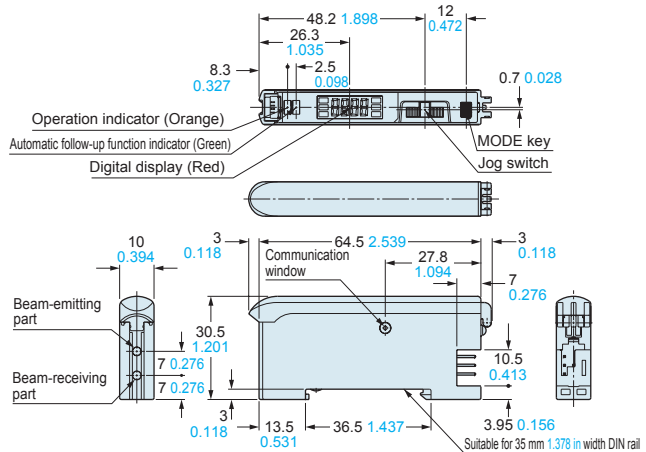


Notes: 1) The quick-connection sub cable does not have +V (brown) and 0 V (blue). The power is supplied from the connector of the main cable.
2) 50 mA max., if five amplifiers, or more, are connected in cascade.

Symbols ...D : Reverse supply polarity protection diode
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DIMENSIONS (Unit: mm in)

The CAD data in the dimensions can be downloaded from the website: <http://www.sunx.com>



All information is subject to change without prior notice.



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