

# FX-311G | Manually Set Fiber Sensor FX-311

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\*Photo may vary from actual product.

→ Dimensions  
↓ Accessories (Option)

Product Number	FX-311G
Part Number	FX-311G
Product	Manually Set Fiber Sensor
Details	NPN output
Product name	Manually Set Fiber Sensor FX-311

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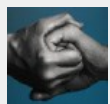
A Vital Piece to the EV and HEV Puzzles



Panasonic Products for Energy Management



TOUGH for Mobiles



MID Solutions (MIPTEC)



Requests to customers

As of May 26, 2019  
Specifications and design of the products are subject to change without notice for the product improvement.

## Spec Detail

Item	Specifications
Product Number	FX-311G
Part Number	FX-311G
Supply voltage	12 to 24 V DC ±10 % Ripple P-P 10 % or less
Power consumption	840 mW or less (Current consumption 35 mA or less at 24 V supply voltage)
Output	NPN open-collector transistor • Maximum sink current: 100 mA (50 mA, if five, or more, amplifiers are connected in cascade) • Applied voltage: 30 V DC or less (between output and 0 V) • Residual voltage: 1.5 V or less [at 100 mA sink current (50 mA, if five, or more, amplifiers are connected in cascade)]
Output:Output operation	Selectable either Light-ON or Dark-ON, with selection switch
Output:Short-circuit protection	Incorporated
Response time	150 μs or less (FAST), 250 μs or less (STD), 2 ms or less (LONG) selectable with selection switch
Operation indicator	Orange LED (lights up when the output is ON)
Stability indicator	Green LED (lights up under stable light received condition or stable dark condition)
Sensitivity adjuster	12-turn potentiometer with indicator (Pointer part: red backlight) (Note):The red backlight of the pointer part lights up more brightly when the power is turned ON and when the sensitivity is adjusted.
Timer function	Incorporated with OFF-delay timer, selectable either effective (approx. 10 ms or 40 ms) or ineffective
Automatic interference prevention function	Incorporated (Up to 4 sets of fiber heads can be mounted close together.) (Note):When the power supply is switched on, the emission timing are automatically set for interference prevention.

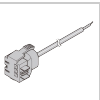
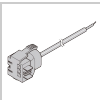
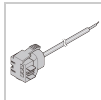
Ambient temperature	-10 to +55 °C -14 to +131 °F (If 4 to 7 units are connected in cascade: -10 to +50 °C +14 to +122 °F, if 8 to 16 units are connected in cascade: -10 to +45 °C +14 to +113 °F) (No dew condensation or icing allowed) Storage: -20 to +70 °C -4 to +158 °F
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH
Ambient illuminance	Incandescent light: 3,000 lx at the light-receiving face
Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure (Note):The voltage withstandability and the insulation resistance values given in the above table are for the amplifier only.
Insulation resistance	20 MΩ, or more, with 250 V DC megger between all supply terminals connected together and enclosure (Note):The voltage withstandability and the insulation resistance values given in the above table are for the amplifier only.
Vibration resistance	10 to 150 Hz frequency, 0.75 mm 0.03 in amplitude in X, Y and Z directions for two hours each
Shock resistance	98 m/s <sup>2</sup> acceleration (10 G approx.) in X, Y and Z directions for five times each
Emitting element (modulated)	Green LED
Emitting element (modulated):Peak emission wavelength	525 nm 0.021 mil
Material	Enclosure: Heat-resistant ABS, Case cover: Polycarbonate
Connection method	Connector (Note):The cable for amplifier connection is not supplied as an accessory. Make sure to use the optional quick-connection cable 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)
Cable length	Total length up to 100 m 328.084 ft is possible with 0.3 mm <sup>2</sup> , or more, cable.
Weight	Net weight: 15 g approx., Gross weight: 20 g approx.

[→ Dimensions](#)

[↓ Accessories \(Option\)](#)

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## Accessories (Option)

		
Product Number <b>CN-71-C1</b>	Product Number <b>CN-71-C2</b>	Product Number <b>CN-71-C5</b>
Part Number <b>CN-71-C1</b>	Part Number <b>CN-71-C2</b>	Part Number <b>CN-71-C5</b>
Product <b>Quick-connection cables</b>	Product <b>Quick-connection cables</b>	Product <b>Quick-connection cables</b>
Details <b>Sub cable(1-core)</b>	Details <b>Sub cable(1-core)</b>	Details <b>Sub cable(1-core)</b>
Product name <b>Cable</b>	Product name <b>Cable</b>	Product name <b>Cable</b>

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