

Specifications

1. Outline

This product is an amplifier unit for analog sensor employing a fiber unit for a detection portion. Emitter follower voltage output is obtained with this product connected with DC power source (12 to 24V DC). This product is low profile type, which allows multiple units installed on DIN rail. In addition, control output can be remotely operated in combination with an optional comparator unit.


2. Rating/Performance/Specifications

Model	F71RAN
Detection	Fiber optic type
Power supply	12V to 24VDC $\pm 5\%$, Ripple 2% Max.
Power consumption	30mA Max.
Output mode	Effective voltage range 2V to 8V (NPN emitter follower) * 1
Operating mode	Voltage output (Proportional to light received amount) (Current 3mA Max.)
Response time	Rising 2V→8V within 10ms. Falling 8V→2V within 25ms.
Temperature drift	Within 0.3%/°C
Output ripple	80mV Max.
Light source	Red LED (680nm)
Indicators	Power indicator (Green) Proportional to light-received value (Orange)
Case material	Case : Heat-resistant ABS Cover : Polycarbonate
Wiring	Flying lead (Outer \varnothing 4.8) 0.2mm ² X 3 cores 2m
Weight	Approx. 90g (including cord and mounting fittings)

3. Environment

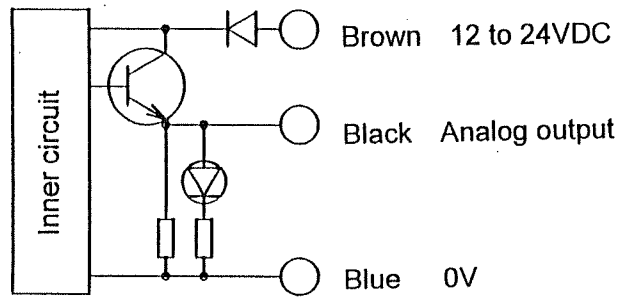
Ambient illumination	Incandescent lamp : 10,000 lx. or less
Ambient temperature	-25°C to +55°C without condensation (-40°C to +70°C in storage)
Ambient humidity	35%RH to 85%RH
Case protection	IP40
Vibration resistance	10 to 55Hz, 1.5mm double amplitude, 2 hours each for X/Y/Z direction

* 1: 1V to 9V output is available depending on variation of products or fiber units.

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4. Wiring and output circuit




5. Precautions

- Make correct wiring before power is supplied.
- Be sure to run amplifier unit line separately from high-voltage line/power line as wiring in the same conduit may cause damage or malfunction due to noise.
- Do not fail to ground when an ordinary switching regulator is used.
- Wait for warming up time just after power is supplied.
- Do not use an amplifier unit where it is subject to much steam/dust, or direct splash of oil/water.
- Do not use the unit outdoors or where external light directly shines on a light-received face.
- It takes approx. 30 min. after power is supplied to stabilize analog voltage. Supply power beforehand when precision detection is required.

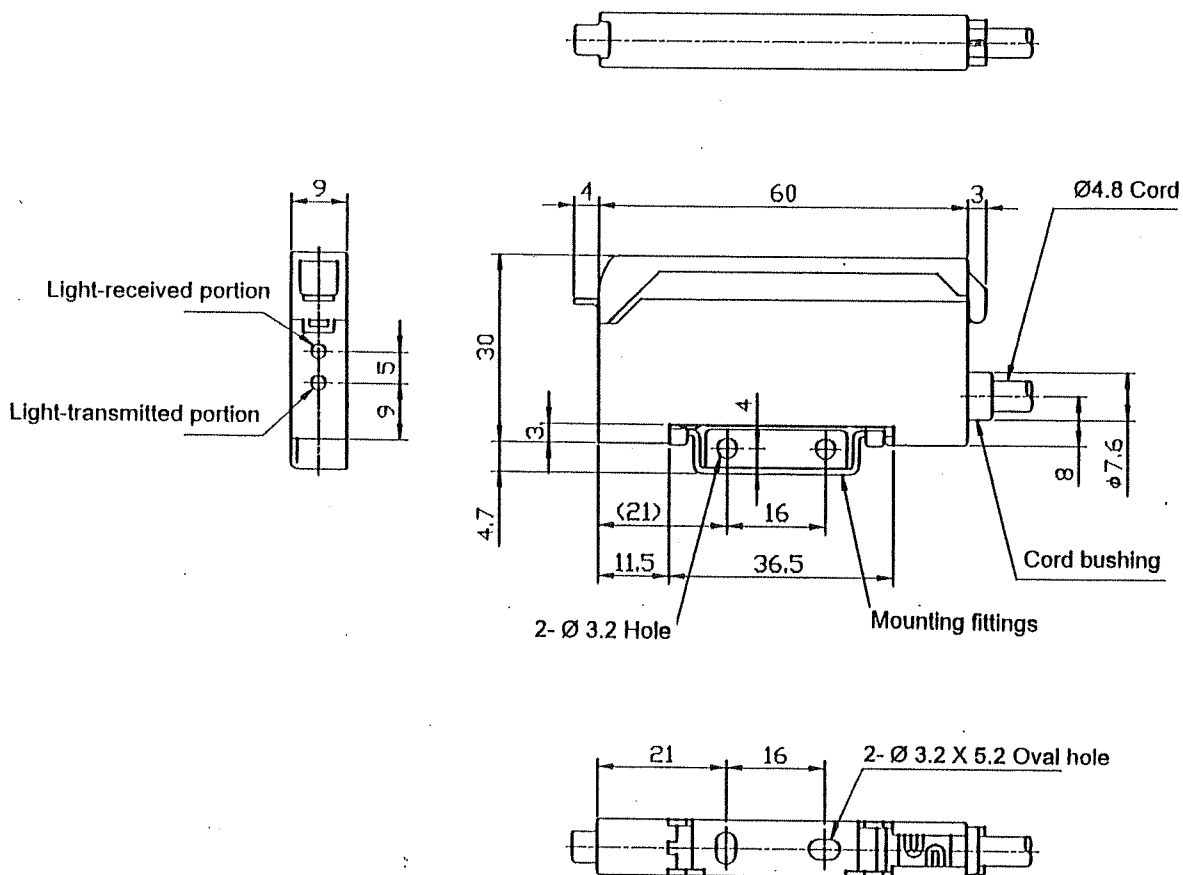
6. Note

- The product is warranted for 12 months after delivery.
- During the warranty period, we will only repair any defective parts or replace any defective products provided that the defectives are caused by our own responsibility.
- This product is not a disaster/accident preventing device. Please note that we shall not be responsible for any disaster or accident occurred when equipment with this product built in is used.

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External dimensions



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