

FS-N15CN

Fiber Amplifier, M8 Connector Type, NPN

*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

Model		FS-N15CN
Type		IP66 Fiberoptic Amplifier, 1 output type
Output		NPN
I/O format		M8 connector *1
Main unit/expansion unit		Main unit
Control output		1 output NPN open collector 24 V or less; maximum 100 mA or less, residual voltage 1 V or less
External input		1 Input time 2 ms (ON)/20 ms (OFF) or more (25 ms or more (ON/OFF) when external calibration is selected.)
Output toggle		Light-ON/Dark-ON switchable
Light source LED		Red 4-element LED (wavelength 630 nm)
Timer function		Timer OFF/OFF delay/ON delay/One-shot
Response time		50 µs (HIGH SPEED) /250 µs (FINE) /500 µs (TURBO) /1 ms (SUPER) /4 ms (ULTRA) /16 ms (MEGA)
Number of interference prevention units		0 units (expansion not possible)
Case size		H30.3mm 1.19" x W9.8mm 0.39" x L71.8mm 2.38"
Unit expansion		0 units (expansion not possible)
Protection circuit		Reverse polarity protection, Over-current protection, Surge absorber
Rating	Power voltage	12 to 24 VDC ±10 %, Ripple (P-P) 10 % or less
	Current Consumption	Normal: 900 mW or less (36 mA max. at 24 V, 48 mA max. at 12 V)*2 Eco on mode: 800 mW or less (32 mA max. at 24 V, 39 mA max. at 12 V)*2 Eco Full mode: 470 mW or less (19 mA max. at 24 V, 23 mA max. at 12 V)
Environmental resistance	Enclosure rating	IP66*3*4
	Ambient light	Incandescent lamp: 20,000 lux or less, Sunlight: 30,000 lux or less
	Ambient temperature	-20 to +55 °C -4 to 131 °F (No freezing)
	Relative humidity	35 to 85 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm 0.06", 2 hours in each of the X, Y, and Z directions
	Shock resistance	500 m/s², 3 times in each of the X, Y, and Z directions
Material	Adapter	Glass-reinforced PBT
Weight		Approx. 30 g

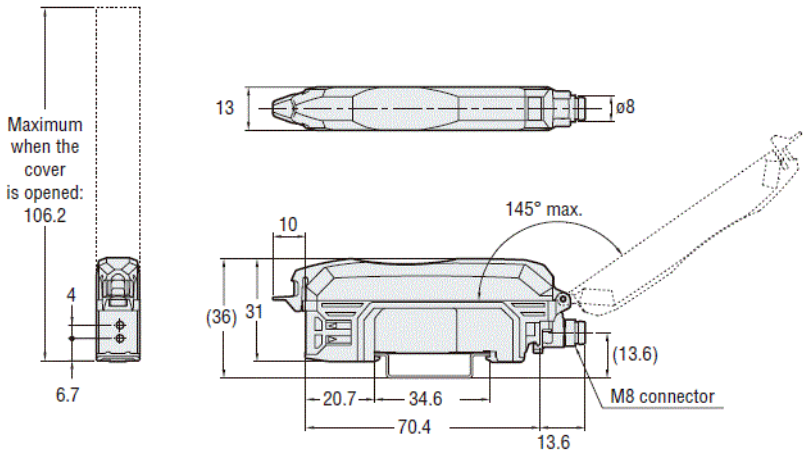
*1 Use a cable of 30 m 98.43' or less.
*2 Increases 100 mW (4.0 mA) for High Speed mode
*3 About the enclosure rating when a small-diameter fiber unit (the diameter of the cable is ø1.3 or ø1.0) is used. IP66/IP65 cannot be satisfied when the type whose diameter is ø1.3 and terminal can be separated (FU-4F/ 66/91/93/43/63/63T etc.) is used. When any small-diameter fiber units except for the above are used, IP65 is applied.
*4 In any of the following cases, the enclosure rating IP66/IP65 cannot be satisfied.

When the Fiber Unit and KEYENCE's M8 connector cable are not connected (Recommended conditions to tighten up the M8 connector: Tighten it by hand first.Then retighten it as much as 1/16-1/8 of a rotation with pliers.)
When the Fiber Unit and KEYENCE's M8 connector cable are not connected
When the dust cover of the Sensor Amplifier is open
When there is debris in the dust cover
When the waterproof adapter A/B are not used at the time of installation of a small-diameter fiber unit.

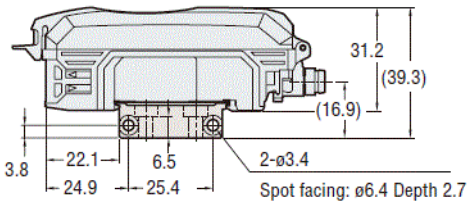
Dimensions

* Download CAD file or product manual for larger image/text and more detail.

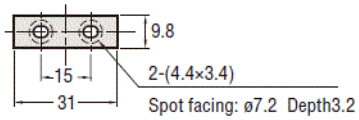
■FS-N15CN/N15CP



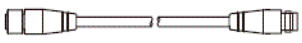
When the mounting bracket is attached (OP-73880 sold separately)



Reverse side of mounting bracket

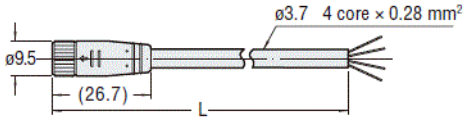


M8 Connector junction cable (OP-85498 sold separately)

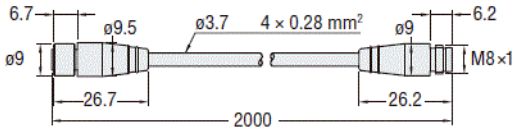


M8 Connector Cable (OP-73864/73865 sold separately)

Model	OP-73864	OP-73865
Cable length L(m)	2	10



M8 connector junction cable (OP-85498 sold separately)

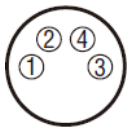


Unit: mm

I/O Circuit Connection diagram

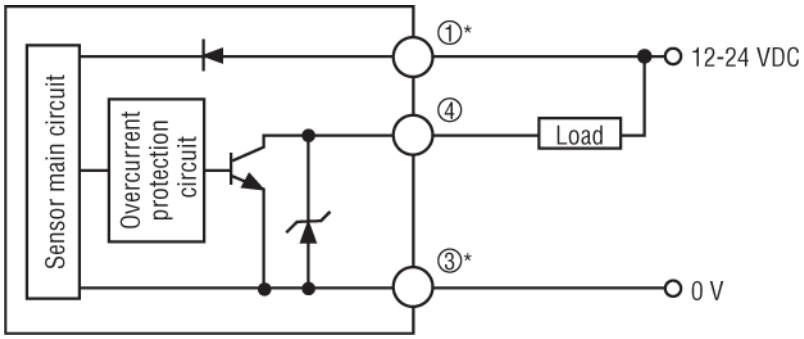
* Download CAD file or product manual for larger image/text and more detail.

Output Circuit Diagram



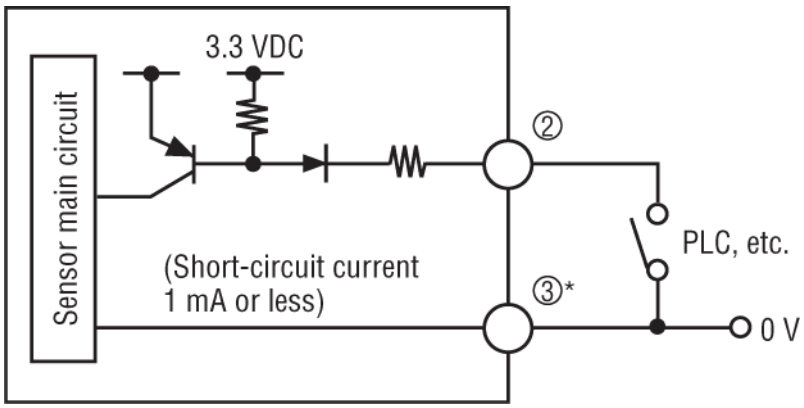
*1 FS-N11N/N11MN/N13N only
*2 FS-N11MN only
*3 The FS-N13N/N14N has a white cable as separate output 2.

Output Circuit Diagram



* FS-N11CN only

Input Circuit Diagram



* FS-N11CN only