



FS-N15CP

Fibre Amplifier, M8 Connector Type, PNP



SPECIFICATIONS

Model		FS-N15CP
Type		1 output type
Output		PNP
Input/Output configuration		M8 connector *1
Main unit/Expansion unit		Main unit
Control output		1 output PNP open collector 24 V or less; maximum 100 mA or less, residual voltage 1 V or less
External input		1 input Input time 2 ms (ON)/20 ms (OFF) or more, when selecting External calibration 25 ms (ON/OFF) or more
Response time		50 μ s (HIGH SPEED) /250 μ s (FINE) /500 μ s (TURBO) /1 ms (SUPER) /4 ms (ULTRA) /16 ms (MEGA)
Multiple connections to Expansion units		0 units (expansion not possible)
Output toggle		LIGHT-ON/DARK-ON (switch-selectable)
Light source		Red, 4-element LED (Wavelength: 630 nm)
Timer function		Timer OFF/OFF-delay timer/ON-delay timer/One-shot timer
Protection circuit		Reverse polarity protection, Over-current protection, Surge absorber
Number of interference prevention units		0 units (connection not possible)
Case dimensions		H30.3mmxW9.8mmxL71.8mm
Rating	Power voltage	12 to 24 VDC \pm 10 %, Ripple (P-P) 10 % or less
	Current Consumption	Normal: 950 mW or less (39 mA max. at 24 V, 52 mA max. at 12 V) ² Eco on (ALL): 850 mW or less (35 mA max. at 24 V, 44 mA max. at 12 V) ² Eco full: 520 mW or less (21 mA max. at 24 V, 26 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 (No freezing)
	Relative humidity	35 to 85 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm, 2 hours in each of the X, Y, and Z directions
	Shock resistance	500 m/s ² , 3 times in each of the X, Y, and Z directions
Case material		Main unit: glass-reinforced PBT; Cover: Sulfonic resin
Material	Adapter	Glass-reinforced PBT
Weight		Approx. 30 g

*1 Use a cable of 30 m or less.

² When the Power Mode is set to HIGH SPEED, 100 mW (4.0 mA) will be added.³ About the enclosure rating when a small-diameter fibre unit (the diameter of the cable is ϕ 1.3 or ϕ 1.0) is used. IP66/IP65 cannot be satisfied when the type whose diameter is ϕ 1.3 and terminal can be separated (FU-4F/ 66/91/93/43/63/63T etc.) is used. When any small-diameter fibre 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 Fibre 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 Fibre Unit and KEYENCE's M8 connector cable are not connected

When the dust cover of the Sensor Amplifier is open

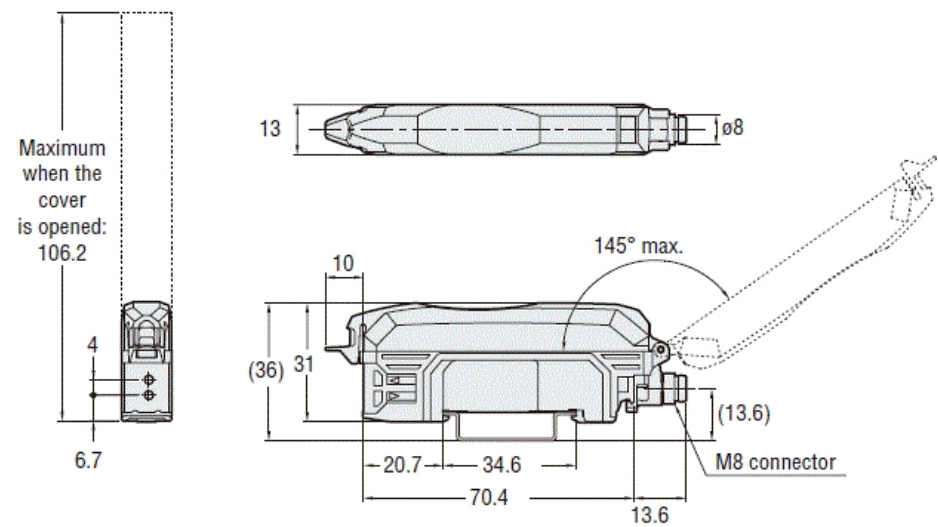
When there is debris in the dust cover

When the waterproof adapter A/B are not used at the time of installation of a small-diameter fibre unit.

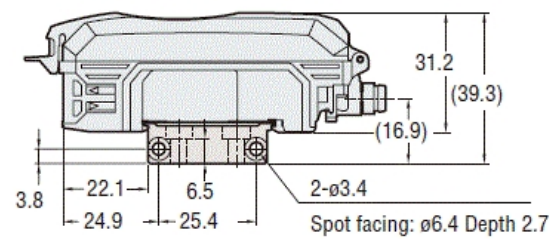
Dimensions

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

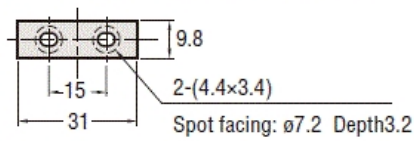
FS-N15CN/N15CP



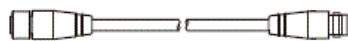
When the mounting bracket is attached
(OP-73880 sold separately)



Reverse side of mounting bracket

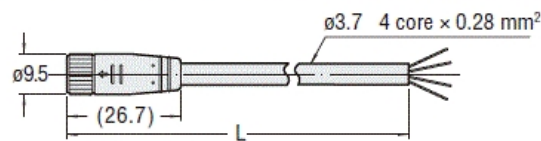


M8 Connector junction cable
(OP-85498 sold separately)

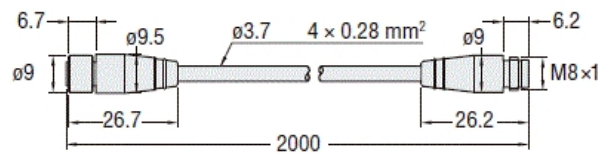


M8 Connector Cable
(OP-73864/73865 sold separately)

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



M8 connector junction cable
(OP-85498 sold separately)

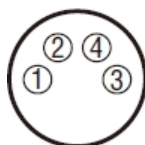


Unit: mm

I/O Circuit Connection diagram

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

Output Circuit Diagram

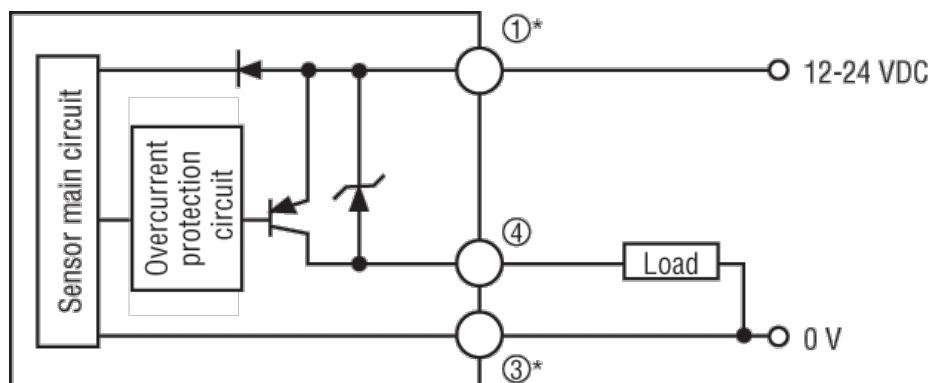


*1 FS-N11N/N11MN/N13N only

*2 FS-N11MN only

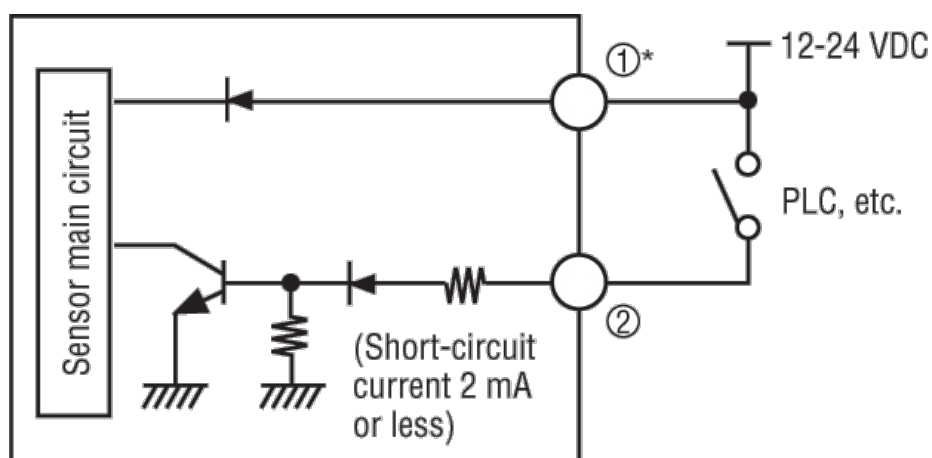
*3 The FS-N13N/N14N has a white cable as separate output 2.

Output Circuit Diagram



* FS-N11CP only

Input Circuit Diagram



* FS-N11CP only