



FS-T1
Fiber Amplifier, Cable Type, Main Unit, NPN



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

 This model has been discontinued.
Compliance with the certification standard is ensured as of the time of shipment from our company.

Contact Us: 1-888-539-3623

Recommended Replaceable Products: [Digital Fiber Optic Sensor - FS-N40 series](#)

Specifications

Model		FS-T1
Type		Main unit
Output		NPN
Light source		Red LED
Sensitivity adjustment/Mode selection		Button
Response time		250 μ s
Operation mode		LIGHT-ON/DARK-ON (switch-selectable)
Indicator lamp		Output indicator: Red LED, Stable operation indicator: Green LED Calibration indicator: Orange LED
Timer function		ON-delay: 40 ms/OFF-delay: 40 ms/Timer OFF (switch-selectable)
Input		Non-voltage input (contact, solid state)
Control output		NPN open-collector 100 mA max. (24 VDC max.), Residual voltage: 1 V max.
Stability output		NPN open-collector 50 mA max. (40 VDC max.), Residual voltage: 1 V max. *1
Protection circuit		Reversed polarity protection, over-current protection, surge absorber
Unit expansion		Up to 16 expansion units can be connected (a total of 17 units).*2
Mutual interference suppression		4
Rating	Power voltage	12 to 24 VDC \pm 10 %, Ripple (P-P) 10 % or less
	Current consumption	35 mA or less
Environmental resistance	Ambient light	Incandescent lamp: 10,000 lux max., Sunlight: 20,000 lux max.
	Ambient temperature	-10 to +55 $^{\circ}$ C 14 to 131 $^{\circ}$F (No freezing)*3
	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/s ² , 3 times in each of the X, Y, and Z directions
Case material		Polycarbonate
Weight		Approx. 75 g

*1 Only the FS-T1 and FS-M1 can provide stability outputs.
*2 If more than one unit is used together, the ambient temperature varies with the conditions below. Mount the units on the DIN rail with mounting brackets and check that the output current is 20 mA or less.
3 to 10 Units: -10 to 50 $^{\circ}$ C **14 to 122 $^{\circ}$ F**, 11 to 16 Units: -10 to 45 $^{\circ}$ C **14 to 113 $^{\circ}$ F**
*3 When several units are connected, the ambient temperature requirement varies depending on the total number of units connected.

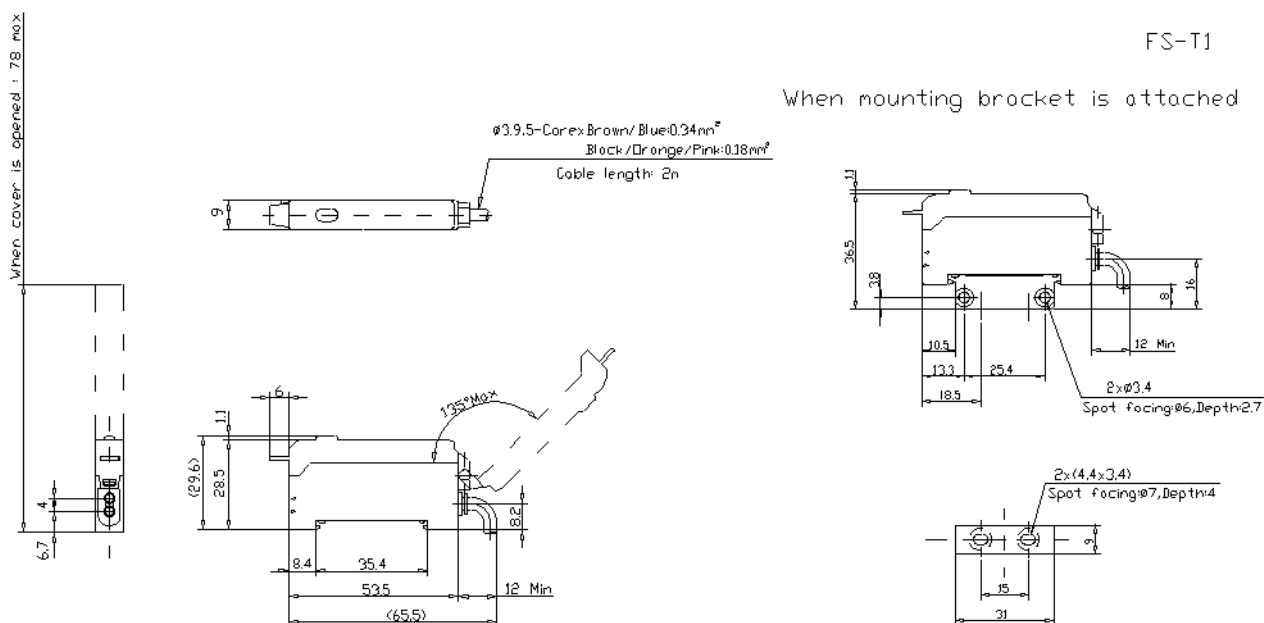
When 3 to 10 units: -10 to +50 °C **14 to 122 °F**

When 11 to 16 units: -10 to +45 °C **14 to 113 °F**

When connecting several units, be sure to mount the units to a metallic DIN rail. Make sure that the output current does not exceed 20 mA.

Dimensions

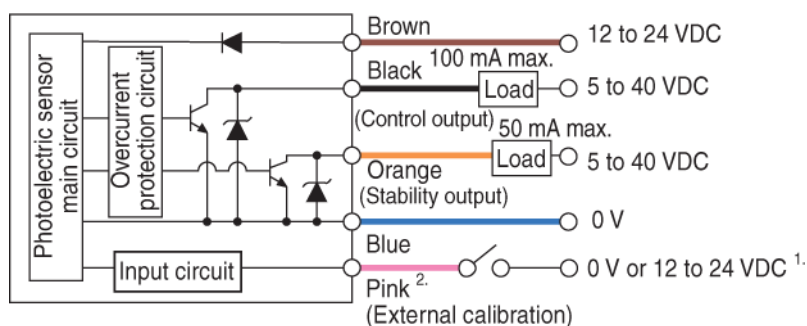
* Download CAD file or product manual for larger image/text and more detail.



I/O Circuit Connection diagram

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

I/O Circuit



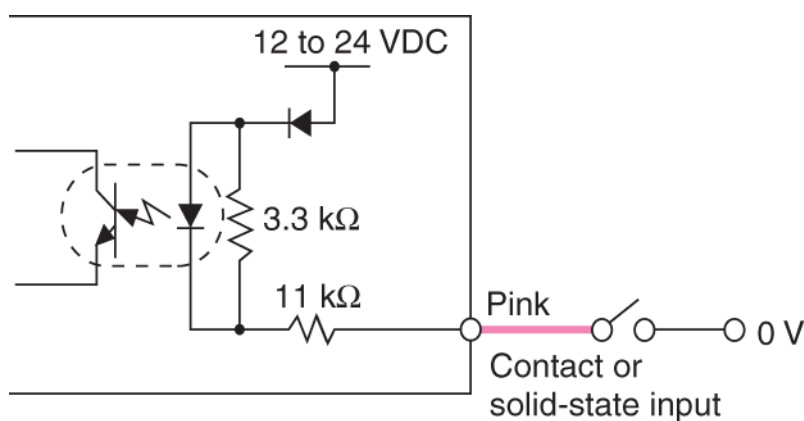
1. When the external calibration input is not used, cut the pink cable at the root, or connect this cable to the positive terminal of the power supply.

2. The FS-M1/M1H does not have a pink cable (for external calibration).

When the stability output is not used, cut the orange cable at the base, or connect this cable to the 0 V terminal of the power supply.

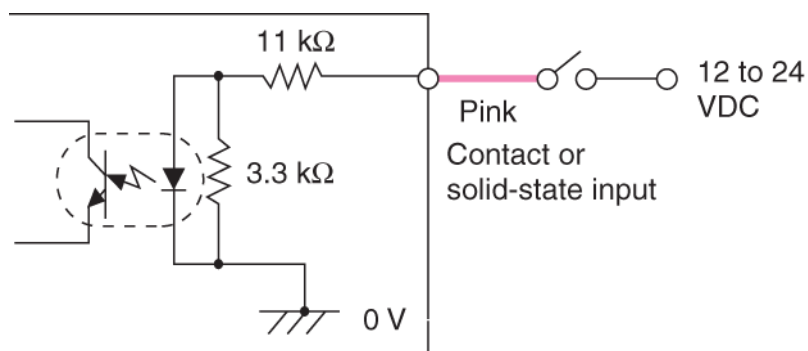
External calibration input circuit

NPN



When the external calibration input is not used, cut the pink cable at the root, or connect this cable to the positive terminal of the power supply.

PNP



When the external calibration input is not used, cut the pink cable at the root, or connect this cable to the positive terminal of the power supply.