

## Chapter 3. INSTALLATION AND WIRING

### 3.1 Installation

#### 3.1.1 Installation Ambience

This module has high reliability regardless of its installation ambience. But be sure to check the following for system in higher reliability and stability.

##### 1) Ambience Requirements

Avoid installing this module in locations, which are subjected or exposed to:

- Water leakage and dust a large amount of dust, powder and other conductive power, oil mist, salt, of organic solvent exists.
- Mechanical vibrations of impacts are transmitted directly to the module body.
- Direct sunlight.
- Dew condensation due to sudden temperature change.
- High or low temperatures (outside the range of 0 to 55 °C)

##### 2) Installing and Wiring.

- During wiring or other work do not allow any wire scraps to enter into it.
- Install it on locations that are convenient for operation.
- Make sure that it is not located near high voltage equipment located..
- Make sure that the distance from the walls of duct and external equipment be 50 mm or more.
- Be sure to be grounded to locations that have good ambient noise immunity.

#### 3.1.2 Handling Precautions

From unpacking to installing the thermocouple input module, be sure to check the following:

- 1) Do not drop it off, and make sure that strong impacts should not be applied.
- 2) Do not dismount printed circuit boards from the case. It can cause malfunctions.
- 3) During wiring, be sure to check any foreign matter like wire scraps should not enter into the upper side of the module, and in the event that foreign matter entered into it, always eliminate it.
- 4) Be sure to disconnect electrical power before mounting or dismounting the module.

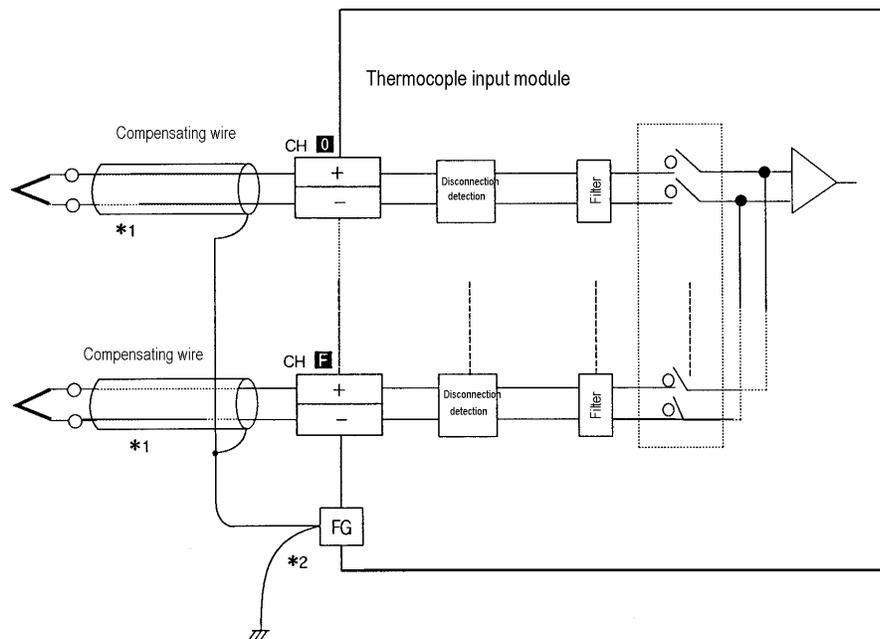
## 3.2 Wiring

### 3.2.1 Wiring Precautions

- 1) Be sure to use compensating wire for sensor input wire and connect shield wire to the terminal FG and ground.
- 2) Be sure to separate the external input signal of the temperature conversion module from an alternating current so that surge or induction noise generated from the alternating current could not effect.
- 3) When wiring, locating this unit too near from high temperature generating devices or materials or contacting it with the material like oil can cause short-circuit and occur damage or disorder.
- 4) When wiring to the terminal block, wiring with high-pressure wire or power supply wire can cause flow inhibition and cause disorder or malfunction.

### 3.2.2 Wiring Example

A wiring example of the thermocouple input module is given below.



- \*1 Use compensating wire as cable.
- \*2 Connect shield wire part of compensating wire to the terminal FG and ground.