

# Panasonic® Screw terminal distribution box 10-pin MIL connector Installation Instructions

Read these instructions carefully and carry out the installation in the prescribed manner. After installation, keep these instructions in a safe place for reference when required.

## ■ Safety Precautions

### ⚠ WARNING

- Always take precautions to ensure the overall safety of your system so that the whole system remains safe in the event of failure of this product or other external factor.
- Do not use this product in areas with inflammable gas. It could lead to an explosion.
- Exposing this product to excessive heat or open flames could cause damage to electronic parts.

### ⚠ CAUTION

- To prevent abnormal exothermic heat or smoke generation, do not use this product continuously at the maximum performance values listed in the specifications.
- Do not disassemble or modify the product. It could lead to abnormal exothermic heat or smoke generation.
- Do not touch the terminal while the electricity is turned on. It could lead to an electric shock.
- Use external devices to ensure safety related functions such as the emergency stop and interlock circuit.
- Connect the wires and connectors securely. A loose connection might pose an electrical hazard, which could result in a short-circuit, exothermic heat or smoke generation.

## 1 Before Use

### ■ Operating environment

- Ambient temperature: 0 to 55°C (32°F to 131°F).
- Ambient humidity: 30 to 85% RH (non-condensing).
- Places free of inflammable and/or corrosive gases.
- Places free of excessive dust, oil mist, iron powder, water and chemicals.
- Places free of excessive vibration and shock.
- Places unaffected by power transmission lines, high voltage equipment, power cables, power equipment, radio transmitters and any other equipment that might generate high switching surges. (The distance to such sources should be at least 100mm/3.937in.).

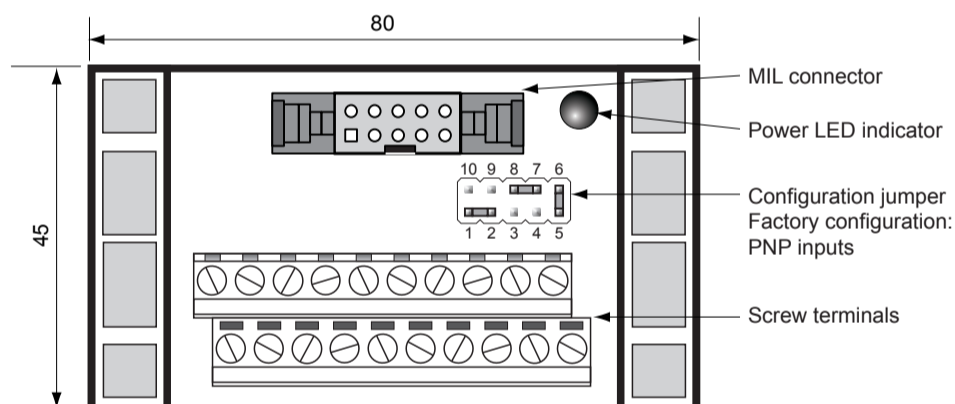
### ■ Proper handling

- Do not touch connector pins directly in order to prevent static electricity from damaging the unit.
- Be sure you are free of static electricity before handling this product.

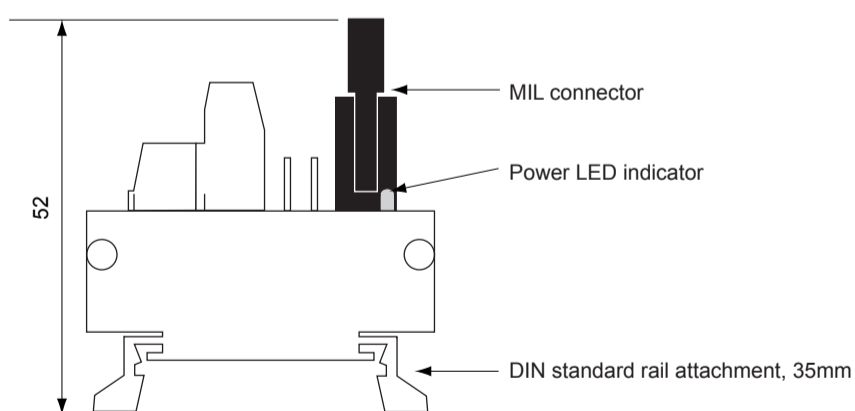
## 2 Part Names, Dimensions

■ Screw terminal distribution box, 10-pin MIL connector (Unit: mm)  
Part no.: AFPCT10PINS

• Top view



• Side view



## 3 Technical Data

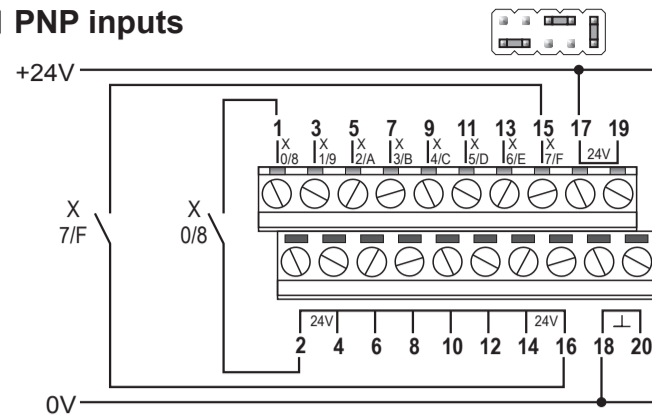
Item	Description
Power supply	24V DC ±10%
Current consumption	5mA
Wire diameter	0.14 - 1.5mm <sup>2</sup>
PLCs that can be used	FP0, FP0R, FPΣ, FP2

### ■ Recommended ribbon cables, 1m

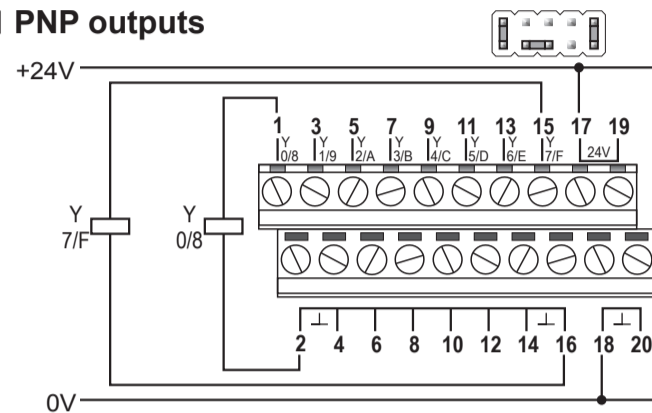
- CABAFPCT10PINS, 10-pin MIL – 10-pin MIL
- AFP0541, 40-pin MIL (PLC) – 4 x 10-pin MIL, e.g. for FPΣ and FP2 expansion units with 40-pin MIL connectors

## 3 Configurations

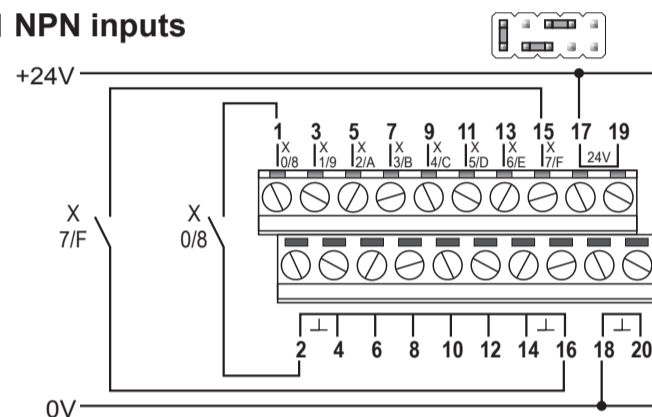
### ■ PNP inputs



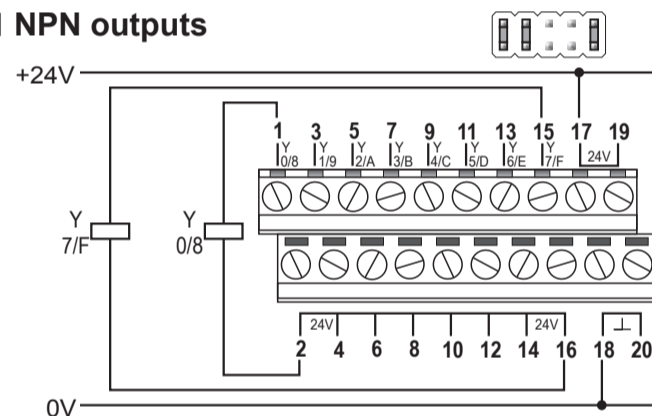
### ■ PNP outputs



### ■ NPN inputs



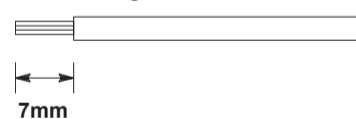
### ■ NPN outputs



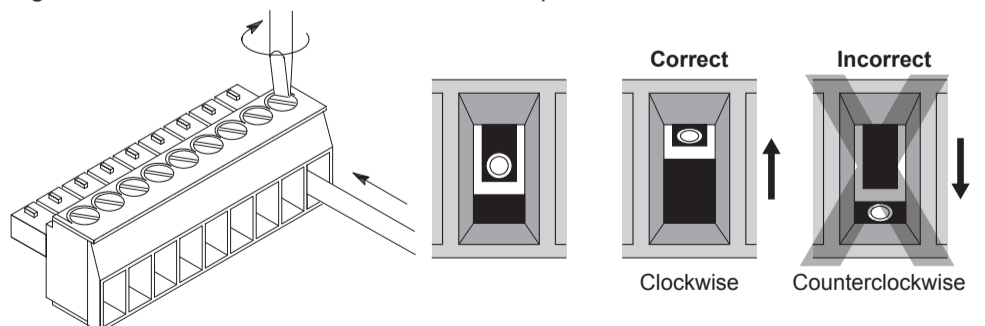
## 5 Wiring the Screw Terminals

**Caution** The tightening torque should be 0.22 to 0.25 N·m (2.3 to 2.5 kgf·cm) or less.

- ① Remove a portion of the wire's insulation. Be careful not to scratch the core wire. Do not twist the wires to connect them. Do not solder the wires to connect them as the solder may break due to vibration. After wiring, make sure stress is not applied to the wire.



- ② Insert the wire into the terminal block until it contacts the back of the block socket. Tighten the screw clockwise to fix the wire in place.



## 6 Pretrial Checklist

**Caution** Be sure to perform the pretrial checks with the power turned off.

### ■ Check the following items:

- Is the configuration jumper set up correctly for PNP/NPN inputs/outputs?
- Are all wires firmly secured to the terminals?