**AutoBase**
# Programmable Logic Controller

## AIC-PL17 Series

TD-AICPL17

## 1 AIC-PL17 Series Specifications

| Feature | | Notice | PL17-C | PL17-D | PL17-E | PL17-F |
|---|---|---|---|---|---|---|
| CPU | | 32bit-ARM Cortex-M4 120MHz | • | • | • | • |
| Flash | | 512Kbytes | • | • | • | • |
| SRAM | | 128Kbytes | • | • | • | • |
| DI 0~7 | 8 Digital Input | DC12~24V/4mA | • | • | • | • |
| DO 0~6 | 7 Digital Output(Relay) | DC10V~24V/2A AC220V/2A | • | • | • | • |
| AI 0~1 | 2 Analog Input | 4~20mA | • | • | • | • |
| LOADER | COM | TX, RX, GND | • | • | • | • |
| *RS-232C | COM (RS-232C or RS-485) | TX, RX, GND | • | • | • | • |
| *RS-485 | | TX+, TX-, FG | | | • | • |
| LAN | 10/100MB Ethernet | RJ45 | | | • | • |

*Only one of RS-232C and RS-485 can be selected and used.

## 2 Characteristics

| | Items |
|---|---|
| Security | Ensure secure communication with perfect encryption (built-in AES, ARIA encryption engine) |
| Functionallity | Built in serial communication and Modbus TCP, industry standard communication protocol (Easy connection with SCADA, AutoBase Touch, PLC) |
| | You can write your own program using the ladder control logic tool. |
| | Users can verify the program created without AIC-PL Series. (Same operation simulator is provided) |
| | It provides external data interface in various ways such as RS-232C, RS-485 and LAN. |
| | Two RS-232C ports support console, communication and download functions (automatic communication recognition). |
| Convenience | Communication is possible only by connecting communication cable (automatic station recognition). |
| Reliability | Reliability test standards such as Surge 3kV, EFT / B 3kV, impulse Noise 3kV, and other vibration and temperature standards are in accordance with the PLC standards. |

## 3 Software

AIC_Studio version 2.4.0 or later (http://www.autobase.biz/Korean/autobaseplc/AIC-PL17.htm)

## 4 Peripheral devices (Need a purchase)

### 1) RS-232C/LOADER Cable
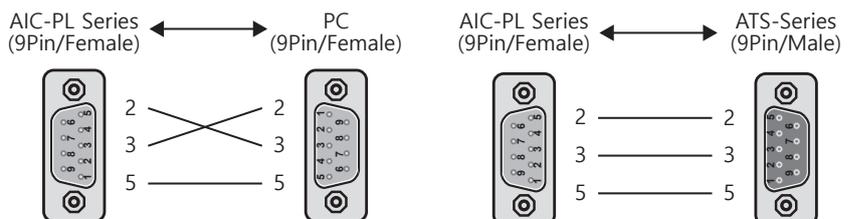


### 2) RS-485 Cable
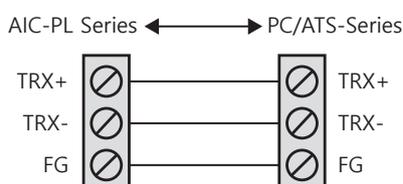


### 3) Power : DC12~24V Adapter
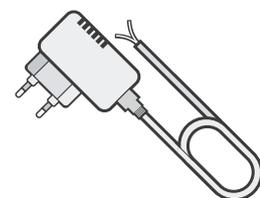
## 5 Communications

| | Item | | | Item |
|---|---|---|---|---|
| RS-232C | Default setting : Modbus RTU / 115200, 0, NONE, 0 | | LOADER | Fixed AOB Auto / 115200, 8, NONE, 0 |
| | AOB Auto, AOB ASCII, AOB Binary, Modbus RTU setting, Communication speed and parameters can be set | | | AIC_Studio performs controller setup and download via this port. |
| | Act as initial console, automatic conversion to communication data recognition | | | Act as initial console, automatic conversion to communication data recognition |
| RS-485 | If RS-232C is not connected, it will recognize automatically | | LAN | Default setting : Modbus TCP / 192.168.0.100:502 |
| | Default setting : Modbus RTU / 115200, 8, NONE, 0 | | | AOB Auto, AOB ASCII, AOB Binary, Modbus TCP setting, IP address and communication port can be set |
| | AOB Auto, AOB ASCII, AOB Binary, Modbus RTU setting, Communication speed and parameters can be set | | | |

## 6 I/O Board – Specifications

| | Item | Specification | | | Item | Specification |
|---|---|---|---|---|---|---|
| Digital inputs | Input count | 8 | | Analog input | Input count | 2 |
| | Isolation method | Photocoupler | | | Kind | Current |
| | Input voltage/current | DC12~24V/4mA | | | Input range | DC4~20mA |
| | Voltage range | DC10.4~24.6V(Ripple rate 5%) | | | | DC0~20mA |
| Digital output | Output count | 7 | | | | Resistance : 250Ω |
| | Isolation method | Relay | | | Digital range | 0~4095 |
| | Load voltage/current | DC24V/2A(Resistive load) | | Normal specifications | Temperature | 0~55˚C |
| | | AC220V/2A(COSΦ=1), 3A/COM | | | Keep temperature | -25~+70˚C |
| | Minimum voltage/current | DC5V/1mA | | | Humidity | 5~95%RH, Dew-free conditions |
| | Maximum voltage/current | AC250V, DC30V/3A | | | Keep humidity | 5~95%RH, Dew-free conditions |
| | Life | DC24V/1A, AC220/1A(COSΦ=0.7) | | | Power | DC12~24V |
| | | More than 100,000 times | | | Current | <20mA |

## 7 Power Wiring
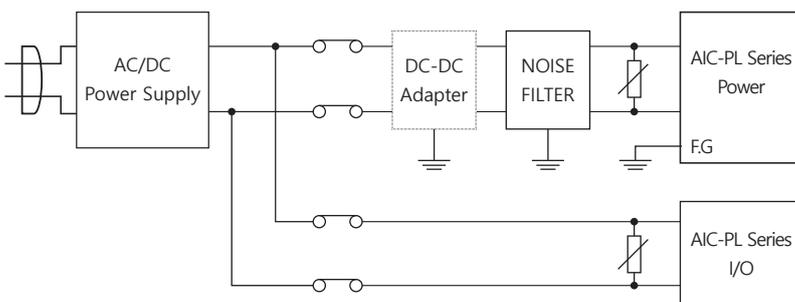


❶ If the power source does not meet the rated voltage, connect the DC-DC adapter.

❷ Connect to Noise-less power between line and ground. Connect to Insulated DC-DC adapter when there is a lot of noise.

❸ AIC-PL Series power supply, I/O and other equipment system separate.

❹ The grounding wire has a 3-type grounding (grounding resistance of 100 Ω or less) and a grounding wire of 2 ㎟ or more. However, if it malfunctions due to grounding, disconnect ground.

## 8 Quality Assurance and A/S

**❶ Scope of warranty**

The warranty period for this product is one year from the date of purchase.
Warranty does not apply if you belong to the following items
- normal wear and tear
- if the product is opened or repaired by an unauthorized person
- if the product is abused
- if the product is exposed to humidity or heat
- If user doesn't follow user guidance

**❷ Request a warranty**

If defects arise during the warranty period, you must contact the manufacturer or return the product to the manufacturer, along with a description of the defective product, to the address provided by the manufacturer. If the warranty claim is valid, the manufacturer will repair and return the product.

**❸ Limitation of liability**

The manufacturer and supplier are not responsible for any malfunction or damage to the equipment, either directly or indirectly, and the total liability of the manufacturer and supplier is limited to the total amount paid for the product.

**❹ Legal Rights**

If the warranty is limited, limitation of liability does not affect the statutory rights specified by national laws regarding the sale of products.
The warranty limit can not be transferred to another person.
The Warranty Limitation is superseded by any other warranties express or implied, written or oral.