

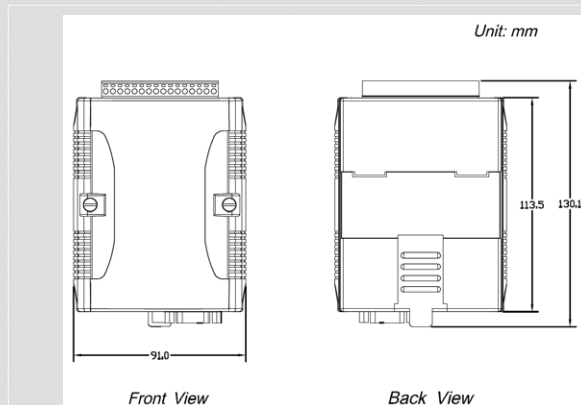


PROFIBUS Series Products

PROFIBUS Remote I/O Module



PROFI-5017



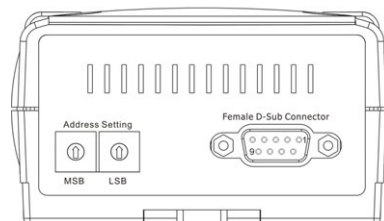
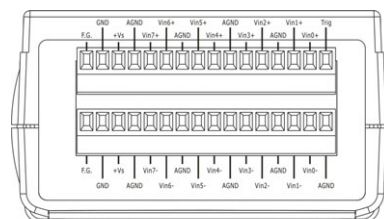
Dimensions

The PROFI-5017 is one of the PROFIBUS DP series products produced by ICP DAS. It provides the PROFIBUS DP communication protocol with any DP-Masters. The PROFI-5017 provides $\pm 4\text{kV}$ ESD protection contacting for all terminals (include I/O Terminals and PROFIBUS connector). By applying the PROFI-5017, users can easily establish a PROFIBUS DP network with other DP-Masters. In advance, it can be used in the application of building automation, remote data acquisition, environment control and monitoring, laboratory equipment & research, factory automation, etc..

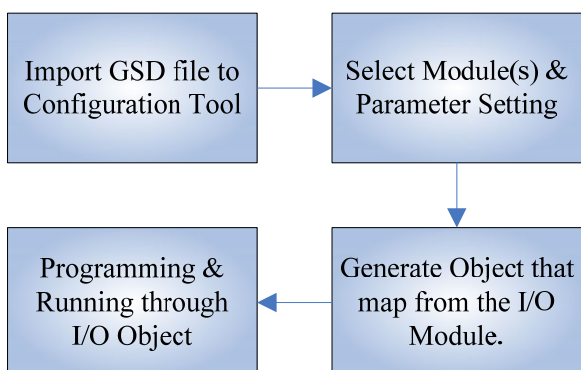
Features

- Support for PROFIBUS DP-V0 protocol
- Detect transmission rate automatically (Max. 12Mbps)
- Support device-related & channel-related diagnosis
- Address 0~126 set by rotary switches or SSA telegram
- 14-bits resolution & 100ksps AD converter
- Network isolation protection
- 3000V_{DC} isolation protection on PROFIBUS
- 4kV ESD protection (contact for any terminal)
- Wide range of power input (DC 10~40V_{DC}) and operating temperature (-25°C~+75°C)

Pin Assignments



Design Flowchart



Female D-Sub Connector

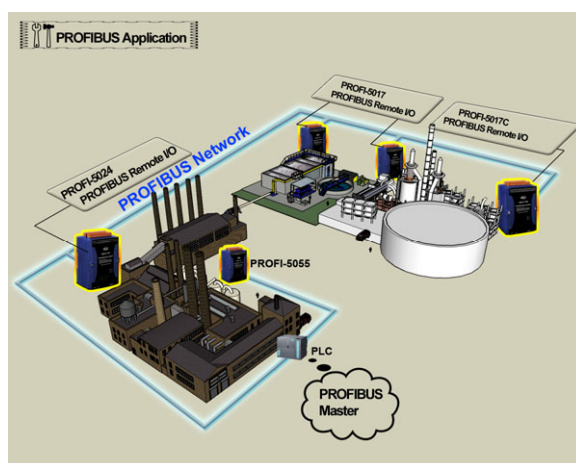
| Pin No. | Signal | Meaning |
|---------|--------|-------------------------------------|
| 3 | A-Line | Receive/Transmit data-minus |
| 4 | CNTR-P | Repeater control signal, RTS signal |
| 5 | GND | Power ground of active terminator |
| 6 | VP | Power 5 volt of active terminator |
| 8 | B-Line | Receive/Transmit data-plus |

Hardware Specifications

| Hardware | |
|---------------------------|--|
| CPU | 80186, 80 MHz or compatible |
| SRAM/Flash/EEPROM | 512 KB / 512 KB / 2 KB |
| Watchdog | Watchdog IC, CPU built-in |
| ESD Protection | 4 kV class A |
| PROFIBUS Interface | |
| Controller | Siemens SPC3 |
| Transceiver | ADI ADM2486 |
| Connector | 9-pin female D-Sub |
| Baud Rate (bps) | 9.6 k, 19.2 k, 45.45 k, 93.75 k, 187.5 k, 500 k, 1.5 M, 3 M, 6 M, 12 M |
| Transmission Distance (m) | Depend on baud rate (for example, max. 1200 m at 9.6 kbps) |
| Isolation | 3000 V _{DC} for DC-to-DC, 2500 V _{rms} for bus-to-logic |
| Protocol | DP-V0 |
| UART Interface | |
| COM | RS-232 on board (For updating firmware) ^{Note 1.} |
| I/O | |
| Analog Input | 8 channel differential voltage input, Isolation Voltage:2500V _{rms} |
| Input Range | +/- 10V, +/- 5V, +/- 2.5V, +/-1.25V |
| Accuracy | +/- 0.1 of FSR |
| LED | |
| Round LED | PWR LED, RUN LED, ERR LED |
| Power | |
| Power supply | Unregulated +10 ~ +40 V _{DC} |
| Protection | Power reverse polarity protection, Over-voltage brown-out protection |
| Power Consumption | 3W |
| Mechanism | |
| Installation | DIN-Rail |
| Dimensions | 91 mm x 128 mm x 52 mm (W x L x H) |
| Environment | |
| Operating Temp. | -25 ~ 75 °C |
| Storage Temp. | -40 ~ 80 °C |
| Humidity | 5 ~ 95% RH, non-condensing |

Note 1: CA-0904 : transform from 4-pin connector to 9-pin Female D-Sub connector.

Application



Ordering Information

| | |
|----------------------|--|
| PROFI-5017 CR | PROFIBUS Remote I/O Module (8-Ch Isolated Analog Voltage Input) |
|----------------------|--|