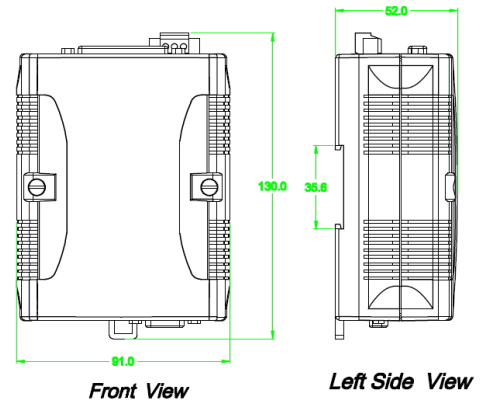


PROFIBUS Remote I/O Module



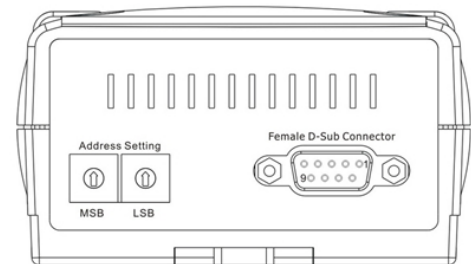
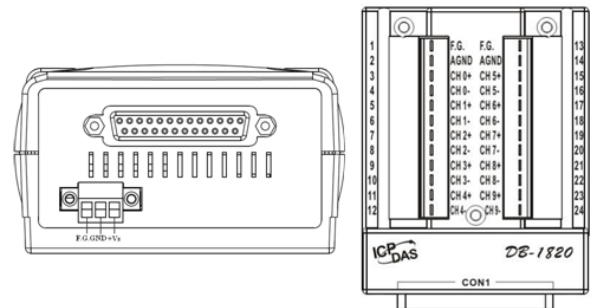
PROFI-5018

The PROFIBUS Remote I/O Module (PROFI-5018) is one of the PROFIBUS DP series products produced by ICP DAS. It provides the PROFIBUS DP communication protocol with any DP-Masters. The PROFIBUS Remote I/O Module (PROFI-5018) provides $\pm 4kV$ ESD protection contacting for all terminals (include I/O Terminals and PROFIBUS connector). By applying the PROFIBUS Remote I/O Module (PROFI-5018), 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

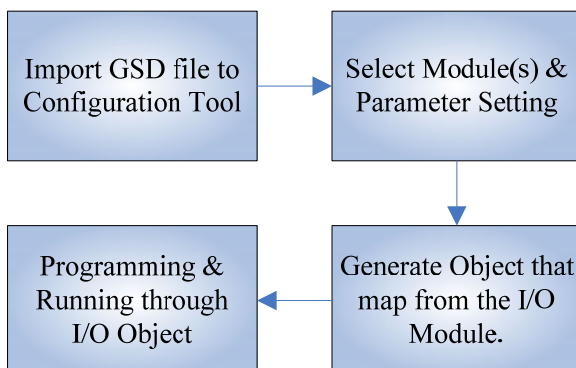
- Support for PROFIBUS DP-V0 protocol
- Detect transmission rate automatically (Max. 12Mbps)
- Support device-related & channel-related diagnosis
- Address 0~126 set by rotary switches or SSA telegram
- 16-bits resolution & 100ksps AD converter
- Network isolation protection
- 3000V_{DC} isolation protection 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



Female D-Sub Connector

Design Flowchart

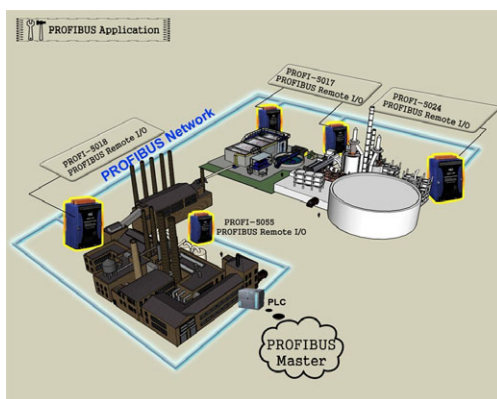


| Pin No. | Signal | Meaning |
|---------|--------|-------------------------------------|
| 3 | A-Dne | Receive/Transmit data minus |
| 4 | CNTR-P | Repeater control signal, RTS signal |
| 5 | GND | Power ground of active terminator |
| 6 | VP | Power 5 volt of active terminator |
| 8 | B-Dne | Receive/Transmit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

| 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 | 10 channel differential thermocouple input, Isolation Voltage:2500V _{rms} |
| Input Range | +/-15mV, +/-50mV, +/-100mV, +/-500mV, +/-1V, +/-2.5V, +/-20mA, 0~20mA, 4~20mA (requires optional external 125 Ohms resistor), Thermocouple Type: J, K, T, E, R, S, B, N, C |
| 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 | 3.5W |
| Mechanism | |
| Installation | DIN-Rail |
| Dimensions | 91 mm x 130 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-5018/S CR

PROFIBUS Remote I/O Module (10-channel Thermocouple Input Module) (ROHS) include PROFI-5018 module and a DB-1820 daughter board **Ct v0P q0353; : 4**