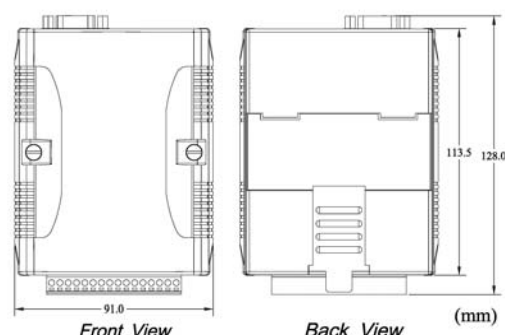




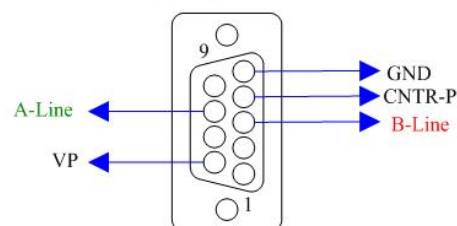
## PROFI-5055

The PROFI-5055 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-5055 provides  $\pm 4\text{KV}$  ESD protection contacting for all terminals (include I/O Terminals and PROFIBUS connector). By applying the PROFI-5055, 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..

## Pin Assignments

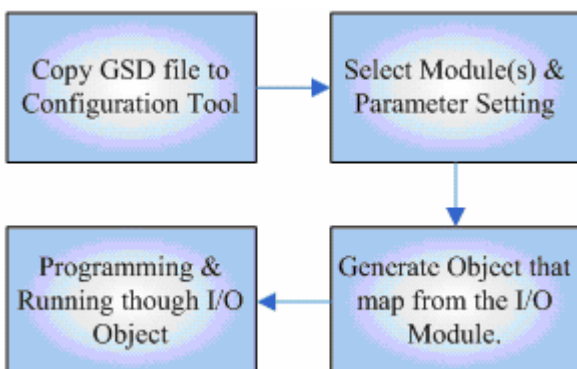
- Support for PROFIBUS DP-V0 protocol
- Detect transmission rate automatically(Max. 12Mbps)
- Address 0~99 set by rotary switches
- Network Isolation Protection
- 3000VDC isolation protection on PROFIBUS side
- 4KV ESD Protection (contact for any terminal).
- Wide range of power input (DC 10~40VDC) and operating temperature ( $-25^{\circ}\text{C}\sim+75^{\circ}\text{C}$ )

### Female D-Sub Connector



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

## Design Flowchart



Vertrieb durch

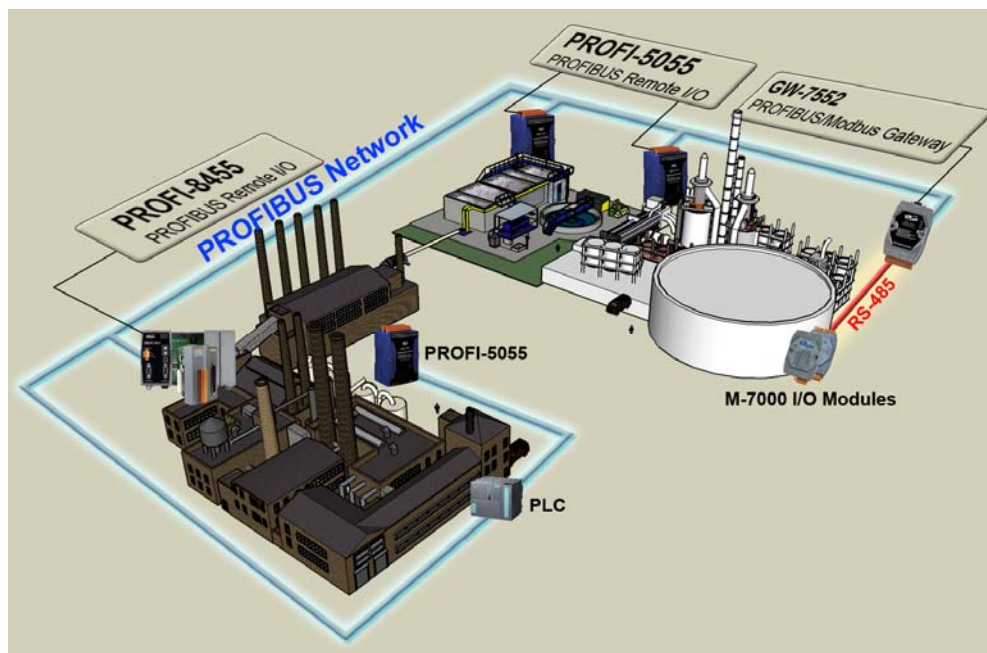


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| Item                 | PROFI-5055                                                |
|----------------------|-----------------------------------------------------------|
| PROFIBUS Interface   | 9-pin D-Sub(Female)                                       |
| PROFIBUS Controller  | Profichip VPCLS2                                          |
| PROFIBUS Transceiver | ADI ADM2486 iCoupler Isolated Transceiver                 |
| Transmission Rate    | Up to 12Mbps                                              |
| Digital Input        | 8 Channels (Sink or Source), Isolated from each other     |
|                      | Off Voltage Level: +4V Max. On Voltage Level: +10 ~ +50V  |
|                      | Input Impedance: 10K $\Omega$ in series with opto-coupler |
|                      | Isolation Voltage: 3750Vrms                               |
| Digital Output       | 8 Channels (Sink), Isolated with common ground            |
|                      | Load Voltage: +10 to +40 V                                |
|                      | Maximum Load Current: 650mA with Short-Circuit Protection |
| Power Requirement    | 10V ~ 40V                                                 |
| Power Consumption    | 1W                                                        |
| Operating Temp.      | -25°C ~ +75°C                                             |
| Storage Temp.        | -30°C ~ +85°C                                             |
| Humidity             | 5% ~ 95% Non-condensing                                   |
| Dimensions           | 91 mm x 128 mm x 52 mm                                    |

## Application



## Ordering Information

|                      |                 |                                                                                            |
|----------------------|-----------------|--------------------------------------------------------------------------------------------|
| <b>PROFI-5055 CR</b> | Art. No. 123196 | PROFIBUS Remote I/O Module<br>(8-Ch Isolated Digital Input & 8-Ch Isolated Digital Output) |
|----------------------|-----------------|--------------------------------------------------------------------------------------------|