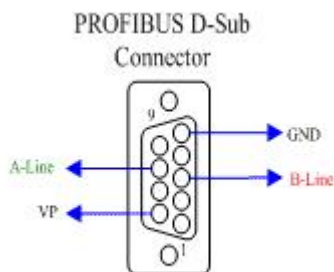# *PROFI-25xx Module Quick Start*

● Introduction

This user guide introduces the user how to implement the PROFI-25xx module into their applications in a quick and easy way. Therefore, it only provides the basic instructions. For more detail information about the PROFI-25xx module, please refer to the PROFI-25xx module user manual in the ICP DAS product CD or download it from ICP DAS web site.
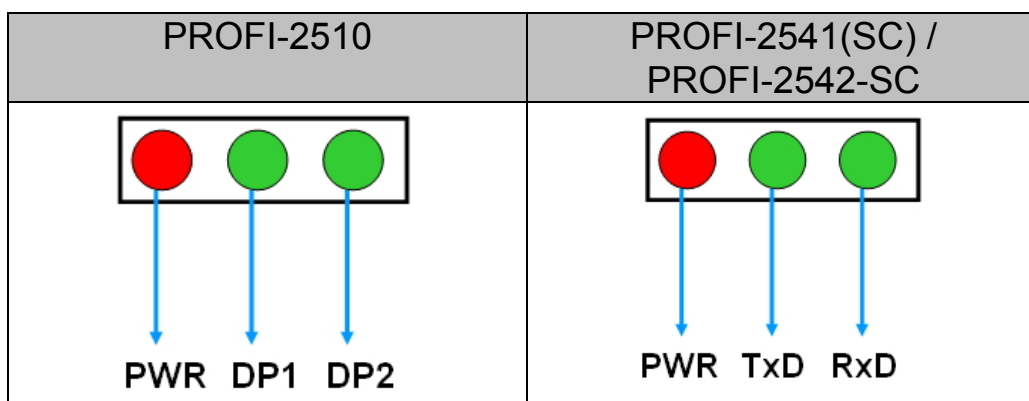
● PROFIBUS Connector

Pin No.	Signal	Meaning
3	B-Line	Receive/Transmit data – plus
5	GND	Power ground of active terminator
6	VP	Power 5 volt of active terminator
8	A-Line	Receive/Transmit data - minus

The PROFIBUS connector is a standard 9-pin D-Sub connector, there are only 4 pins used in PROFI-25xx module. The pins VP and GND support the 5 volt power to active terminal resistor, and the A-Line and B-Line is the data bus.
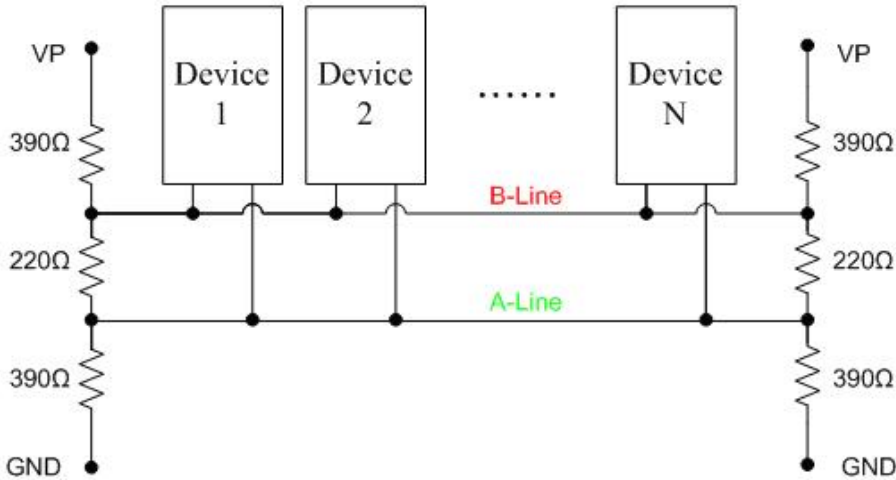
● Status Indicator

PROFI-2510	PROFI-2541(SC) / PROFI-2542-SC
PWR DP1 DP2	PWR TxD RxD

It provides three status indicator, In PROFI-2510, they are PWR LED (red),DP1 LED(green) and DP2 LED (green). In PROFI-2541(SC) / PROFI-2542-SC, they are PWR LED (red), TxD LED(green) and RxD LED (green). When the power is supplied to module, PWR LED will turn on; Transmitting/receiving one data to/from fiber cable will flash the DP1/DP2/TxD/RxD LED once. The DP1/DP2/TxD/RxD LED may always be
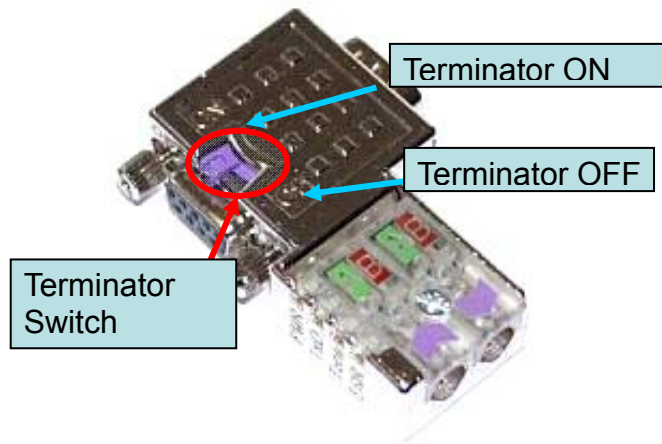
turned on if there are a lot of datas transmitted on fiber cable.

PROFI-2510		PROFI-2541(SC) / PROFI-2542-SC	
PWR Led (Red)		PWR Led (Red)	
ON	Module active	ON	Module active
OFF	Module inactive	OFF	Module inactive
DP1 Led (Green)		TxD Led (Green)	
Flashing	Data transmitting	Flashing	Data transmitting
OFF	No data transmitting	OFF	No data transmitting
DP2 Led (Green)		RxD Led (Green)	
Flashing	Data transmitting	Flashing	Data transmitting
OFF	No data transmitting	OFF	No data transmitting

● **Terminating Resistors**

In order to minimize the reflection effect of the signal transmission, PROFIBUS device has to fit with an active terminal resistor at both first node and last node. The connection of active terminating resistors is shown in above circuit diagram. The PROFI-25xx module doesn't have any terminating resistors inside. Therefore, users must add the terminator in external. In general, PROFIBUS connector has terminating resistors inside, and there is a switch to control the ON/OFF of the terminating resistors, as shown below.
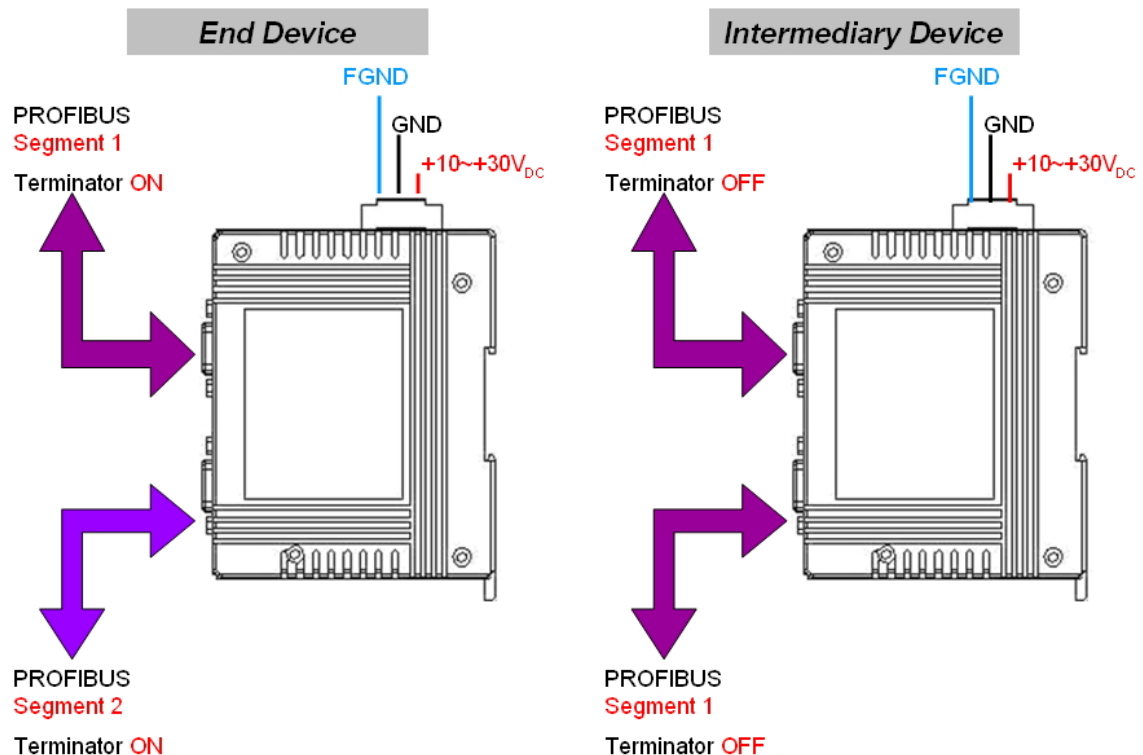
Terminator ON

Terminator OFF

Terminator Switch

● **Wire Connection**

➢ PROFI-2510

If PROFI-2510 is a end device of PROFIBUS segment 1 and PROFIBUS segment 2. The terminal resistor of segment 1 is ON. The terminal resistor of segment 2 is ON.
If PROFI-2510 is an intermediary device of PROFIBUS segment 1. The terminal resistor of segment 1 is OFF.

➢ PROFI-2541(SC) / PROFI-2542-SC