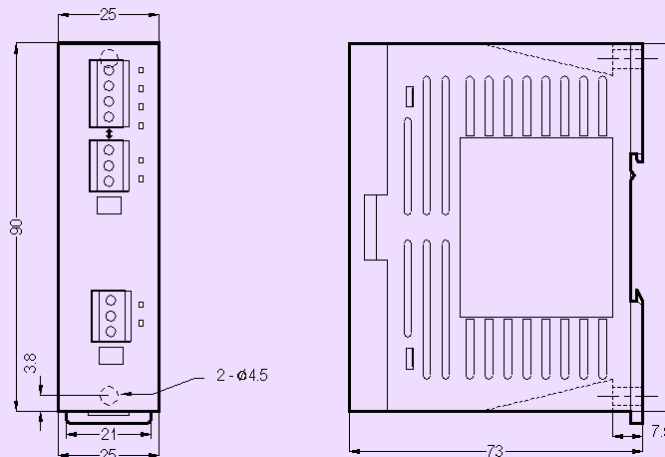




### Introduction

FBs-CM55E is an Ethernet interface module of FBs-PLC series. It enables the capability of FBs-PLC to access the other controllers or devices thru the Ethernet network actively(client) or passively(server). Besides the FBs MA model CPU, all MC, MN CPU can be remotely monitored and diagnosed thru Internet by using this module. While operation, this module uses the port4 of CPU to communicate with Internet. This module also provides a generic RS485 Port3 for peripheral application. While installation, the module can be mounted on DIN-Rail or securely be fastened by screw.

### Dimension



### Features

- Support multiple clients access
- Support server or client mode
- Support FATEKor Modbus-TCP protocol
- IP based access control
- 230.4 Kbps high speed baud rate for serial interface
- Network on line configuration

### Specifications

**Network Interface-** 10BaseT

**Network Protocol-** TCP/IP

**Application Protocol-** FATEK, Modbus-TCP

**Operation Principle-** Serial to Ethernet conversion

**PLC interface-** Port4 RS485 interface

**Generic Port-** Port3, RS485 interface

**PLC Communication Speed-** 230.4 Kbps (Max.)

**Working Mode-** Server or client

**Application IP Port number-**

Modbus-TCP – 502

FATEK – 500 or defined by user

**Max. TCP Connection –** 10 sessions

**Security Protection-** IP based access control

**Configuration -** On line network configuration

**Indicators-** RX, TX and LINK LED indicator

**Power Consumption-** 5V, 200mA

**Operating Temperature-** 0 ~ 60 °C

**Storage Temperature -** -20 ~ 80 °C

**Dimension-** 25(W)x90(H)x73(D) mm

### Indicators

#### Module Working Status Indicator

**RUN:** Fast blink when works normally. Slow blink when on line configuration is proceed.

#### Network Indicators

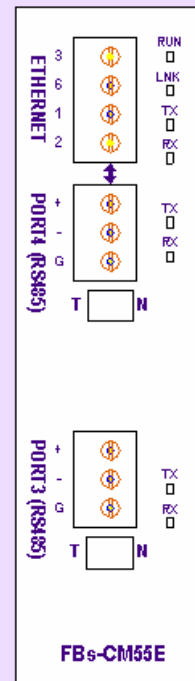
- LINK:** When lit means connection OK.
- TX:** When lit means a message is being transmitted by this module
- RX:** When lit means network exist a message

#### Port4 indicators

- TX:** When lit means a message is being transmitted by port4.
- RX:** When lit means a message is being observed in the port4 lines.

#### Port3 indicators

- TX:** When lit means a message is being transmitted by port4.
- RX:** When lit means a message is being observed in the port4 lines.



### Switches and Connectors

#### Ethernet Connector

To reinforce the resistance for the machine vibration, instead of using conventional RJ-45 connector, this module use an 4 pin Euro connector for network connection. The labels 3,6,1,2 near this connector correspond to the standard RJ-45 signal. that means 3 for RX+(WHITE+GREEN), 6 for RX-(GREEN), 1 for TX+(WHITE+ORANGE) and 2 for TX-(Orange).

#### Port4 Connector

RS485 interface. +,- connected to the positive and negative polarity signal of RS485 interface. G is signal ground.

#### Port4 Terminator Switch

Its position is beneath the Port4 connector, use this switch to determine if the built in terminator for Port4 is engaged or not.



#### Port3 Connector

RS485 interface. +,- connected to the positive and negative polarity signal of RS485 interface. G is signal ground.

#### Port3 Terminator Switch

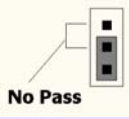
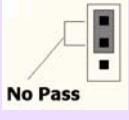
Its position is beneath the Port3 connector, use this switch to determine if the built in terminator for Port3 is engaged or not.



### ***Jumper Setting***

#### ***Password Protection***

When the password has been entered (enabled), the user will be requested to enter a matched password each time when perform the configuration via configuration utility 'ether\_cfg.exe'. In other words, in case the user forget the password then he/she no longer can modify the module's configuration. To prevent this situation from occurring, there provides a jumper JP1 to disable the password protection temporary.

<b>Password Protection</b>	<b>JP1 Setup</b>
Enabled	 No Pass
Disabled	 No Pass

The default factory setting of FBs-CM55E is

*Terminator-* Port3, Port4 all install

*Password protection-* Enable

For those applications that require the setting differ than the above default setting should make some modification according to the tables listed above.