FBs-CM5EH

Multi-Function Ethernet Communication Module

Introduction

FBs-CM5EH is one of the Ethernet communication modules for FATEK FBs series PLC and can be used as an Ethernet-to-485 gateway to reduce the deployment cost by achieving remote monitoring or data acquisition on multiple FATEK PLCs with only one FBs-CM5EH module.

While operating, it will utilize CPU communication port 3 and port 4. Port 3 is reserved for internal use, on the other hand, Port 4 can be configured as Modbus-TCP or Fatek server with adjustable Baud setting. As a gateway between Ethernet and RS485 network, FBs-CM5EH provides a cost-effective solution for monitoring or communicating with FBs-PLCs in the RS485 network. FBs-CM5EH currently supports only Fatek and Modbus Server mode.

FBs-CM5EH also has built-in web server, which not only provides users with the ability to setup the configuration via web browser, but also gives user a way to customize his/her own web presentation that better fits what users need to monitor or control the PLC via internet.

Network configuration setup is a cumbersome and technical task for users during installation, especially with a dynamic IP address. The service callback function achieves remote access of any FBs series PLC without public IP address, e.g. in a LAN. In most cases however, users don't need to perform configuration task while using this product.

When emergent events occur in the control system and a notification to the personnel away from the spot is required, the built-in Send Email function can be a solution. For quick response, SMS(Text) notification is also possible if the Email to SMS service is applicable.

Feature

- Multi-client accessible
- Modbus Server operation mode
- Fatek Server operation mode
- IP-based access control
- Built-in web server
- Configuration setup via web browser
- User can create their own customized web pages by using the companion tool – EasyWebDesigner
- Service call back function , eliminate the cumbersome network setup task
- Network clock(SNTP) function, eliminate the periodic time-adjustment task
- Send Email function, with this function sending SMS message is possible via Email to SMS internet service.

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Specification

Network Specification

Network interface-10/100BaseT

Network protocol -TCP/IP, ARP, ICMP

Application protocol -FATEK, Modbus/TCP, HTTP, DHCP, DNS, SNTP, SMTP, NetBIOS.

PLC interface- Port3,Port4

PLC interface speed- 9600/19200/38400/57600/ 115200/230400/307200 bps

Operating mode- Server only

Storage capacity for Web server- 1.8M Byte

Max. customized web-page count- 100 pages

Web access authentication method- Password

Application ports- Modbus-TCP – 502, FATEK – 500, HTTP – 80 or configured by user.

Security mechanism – IP-based access control

Configuration methods- via Ethernet with utility program or Web-brower

Firmware update method – via Intranet

Common Specification

Indicator(s) : LINK/ACT(green LED), SPEED(red LED)

Internal Power Consumption: 5V, 250mA(Max. Load)

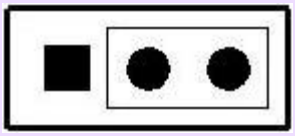
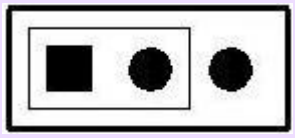
Operating Temperature : 5 ～ 55 ℃

Storage Temperature : -25 ～ 70 ℃

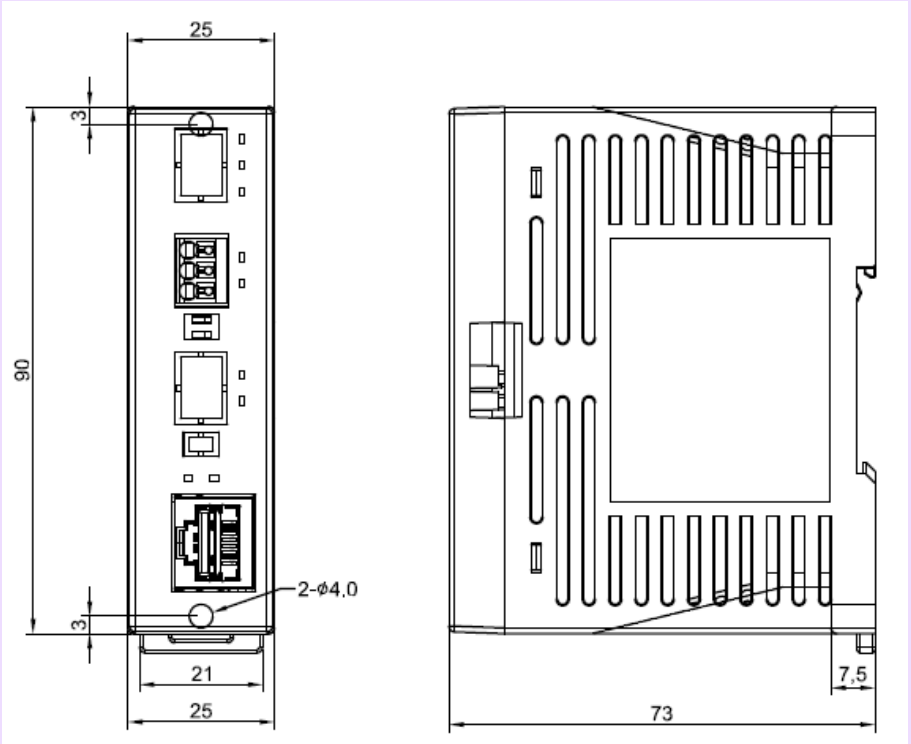
Jumper Setup

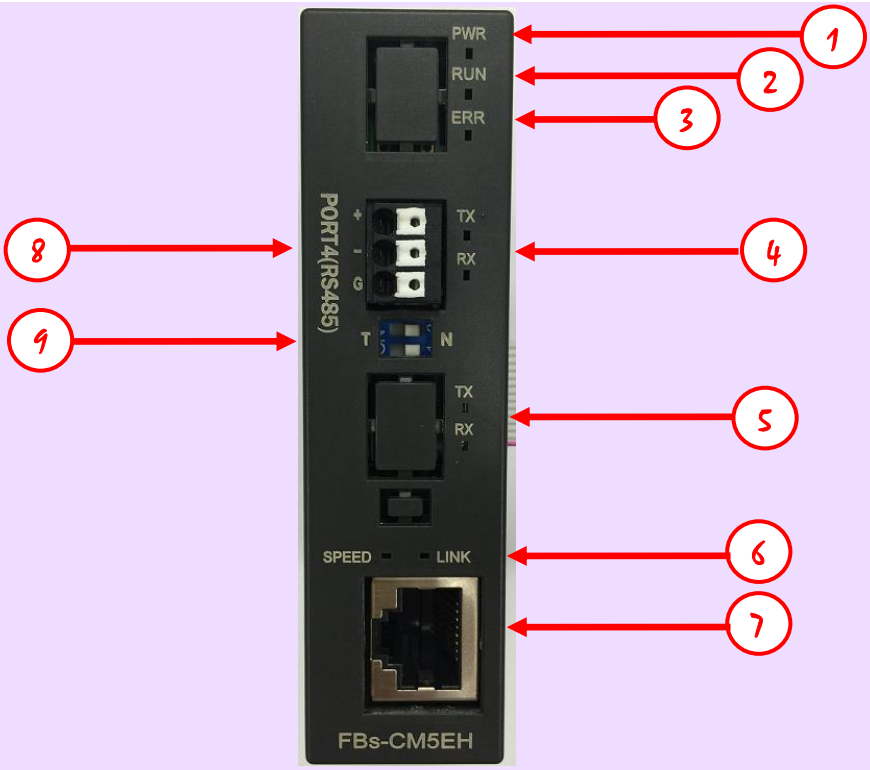
Password protection control

In order to avoid data false change of this module. This module provide password access protection. User has to enter the correct password before changing the content. There is a hardware switch jumper JP8 which can change between “No password” and “password” mode to prevent password lost. The JP8 setup is shown below.

Password protect	JP8 setup
ON(protected)	
OFF(not protected)	

Dimension





LED indicator

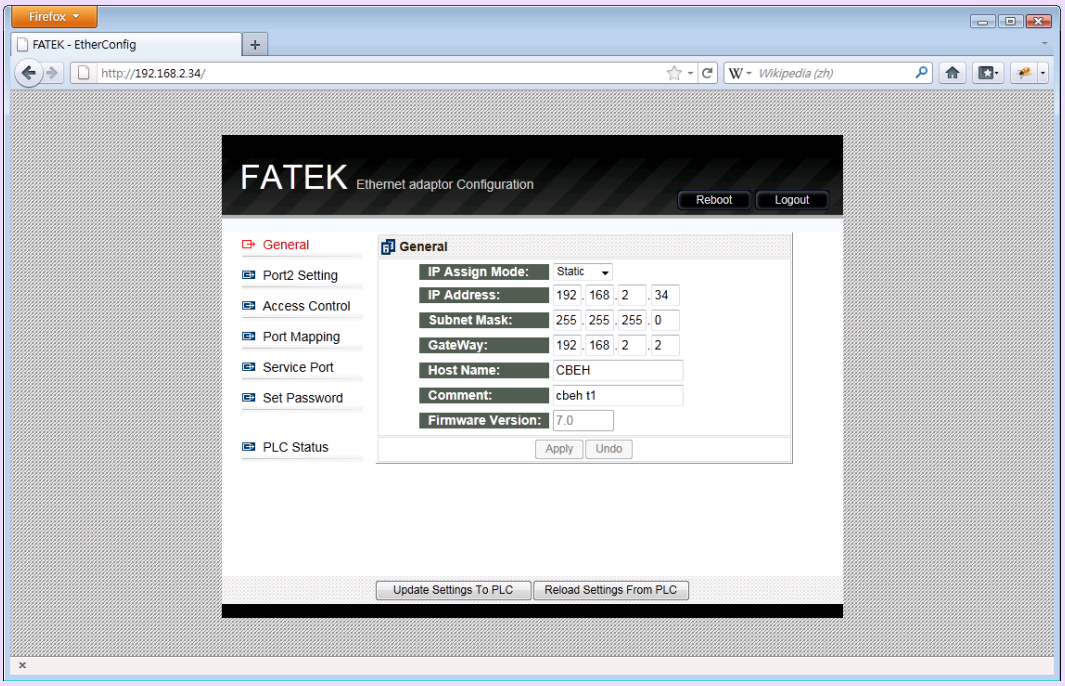
① Power indicator: lit on when power is on.
② System run indicator: Blink when normal.
③ Error indicator: Lit on when failed to perform automatic Baud adjustment on Port 3.
④ Port 4 R/TX: Blink when there's communication.
⑤ Port 3 R/TX: Blink when there's communication.
⑥ Ethernet Status indicator: Indicating Speed and Link/Act status.
⑦ Ethernet connector: Ethernet cable slot RJ45.
⑧ RS485 port connector: "+" and "–" are connected to RS485 positive and negative signal .G is tied to signal ground.
⑨ RS485 port terminated resistor switch: in order to accomplish resistor match for better communication quality. There is built-in terminated resistor. It is convenient to switch status when on-site setup.

Terminated resistor OFF

Terminated resistor ON

Screenshot of browser

Configuration setup for CMEH board



Customized Web-page created by using EasyWebDesigner tool