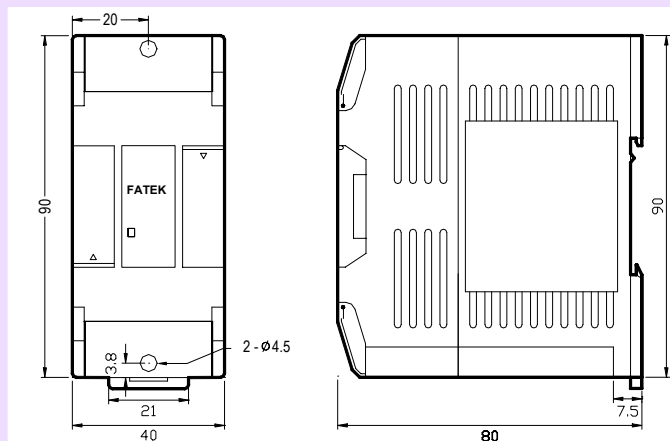




### Introduction

FBs-CM5H is a RS485 repeater module of FBs-PLC series. This module is designed for stand alone operation and can work not only with the FBs-PLC but also other brands of controller. The feature of isolation between each ports protect this module from damaging when the voltage difference between the sub systems is high. This module can concentrates the multiple RS485 bus segments into one unify RS485 network. The RS485 network can only suit for bus structure topology, when there is a need to deploy the star topology then using this module is a right answer. While installation, the module can be mounted on DIN-Rail or securely be fastened by screw.

### Dimensions



### Specifications

**Total Ports-** 4 Ports

**Maximum Speed-** 1Mbps

**Flow Control-** Automaic

**Interface Signals-**

RS485interface- +, -, GND

**Connector-** Terminal block

**Isolation Method-** Transformer (Power) and optical (Signal)

**RS485Terminator-**

Built in, each port can be set individually.

**Indicators -**

5V PWR LED indicator

Active status LED indicators

Collision status LED indicators

**External Power -** 24V-15%/+20%, 2W

**Power Protection-** Reverse polarity protection

**Operating Temperature-** 0 ~ 60 °C

**Storage Temperature -** -20 ~ 80 °C

**Dimension-** 40(W)x90(H)x80(D) mm

### Indicators

Indicator	Description
<b>POW</b>	Power indicator. When apply the 24V power this LED will be lighted.
<b>ACTIVE</b>	There are four LEDs dedicated for the indication of bus activity of all ports. Each LED corresponds to one port. When lit, means the corresponding port is a active port, the message of other ports will derive from the active port
<b>COLLISION</b>	There are four LEDs dedicated for the indication of collision status of all ports. Each LED corresponds to one port. When lit, means the actual port signal of corresponding port is not consistent with the signal that intended to drive.

### Jumper and DIP Switches

#### Terminator Setup

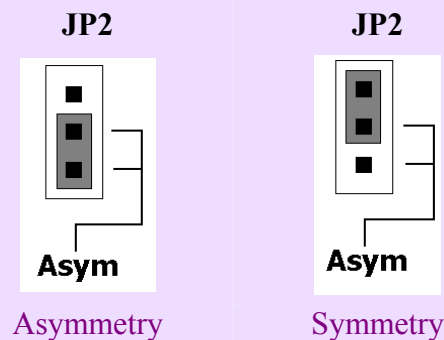
There are four DIP switch inside the module that can be used to control the engagement of the built in termination resistor.

Port	Switch	With Termination	No termination
CH1	SW1	 1,2 is ON	 1,2 is OFF
CH2	SW2		
CH3	SW3		
CH4	SW4		

### *Working mode setup*

**Symmetry mode-** The function of each port is the same, any one port receives a message will put the message to other ports.

**Asymmetry mode-** When the port 1 get a message will put the message into port 2~4, but when the port 2~4 get a message will put the message only to port 1.



The default factory setting of FBs-CM5H is

**Terminator-** CH1~CH4 all installed

**Working mode-** Symmetry

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