



Before using the units

To use the units safely and effectively, please read this document and refer to GFK-2745 & GFK-2799 user manuals for further details.

Warnings and Cautions

Warning!

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use. In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

- Installing or removing modules or wiring with power applied to the system or field wiring can cause an electrical arc. This can result in unexpected and potentially dangerous action by field devices. Arcing is an explosion risk in hazardous locations. Be sure that the area is non-hazardous or remove power appropriately before installing or removing modules or wiring.
- Potentially dangerous voltages are present on a module's terminals, even when system power is turned off. Field power must be turned off when installing or removing a Terminal Block assembly.
- Personnel who install, operate and maintain automation systems that contain these products must be trained and qualified to perform those functions.
- Overloading power modules or Network adapter can result into electric arc & damage to modules.

Caution notices are used where equipment might be damaged if care is not taken.

Caution!

- Check the rated voltage and terminal array before wiring.
- Ensure that specified environmental conditions are not exceeded. Avoid placing the module in direct sunlight.
- Review module specifications carefully, and ensure that input and output connections are made in accordance with the specifications.
- Use specified cables for wiring.
- Field Power Isolators must be used according to the requirements of the 5VDC/24VDC/48VDC or AC Voltage modules used in the system.
- If system power consumption exceeds the power limits, use system power expansion modules.
- System power and field power must be supplied from separate sources.

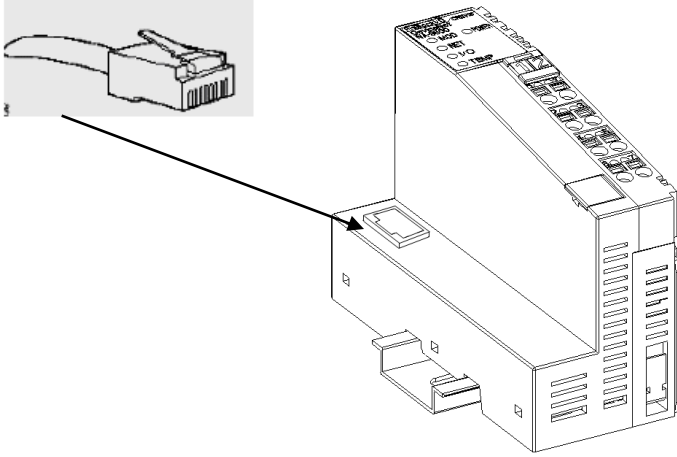
1. STXMBE001 Specifications*

ITEM	SPECIFICATION	ITEM	SPECIFICATION
Surrounding Air Temp./ Ambient Temp.	-20°C to 55°C for UL applications ; -20°C to 60°C for non-UL applications	Network Type	Modbus/TCP
Relative Humidity	5% ~ 90% without condensation	Cable	EtherNet Cable(Shield Cable)
Durable-vib./impact	IEC 60068-2-6:1995	Cable Length(m)	Up to 100m from Ethernet Hub
Mount Position	First module of RSTi system	Expansion No.	Max. 32 module
Atmosphere	No excessive dust ; No corrosive gases	Max. node	Limited by Ethernet Specification
Field Supp.Volt.	Class II**, 24VDC 24VDC (11VDC ~ 28.8VDC)	Max. Digital I/O	Input : 2016points/Output:2016points
Field Supp. Cur.	Max. 10A	Max. Analog I/O	Input : 126Ch / Output : 126Ch
FnBus Sup. Cur	Max. 1.5A@5Vdc	Max. Byte size	Input : 252Bytes / Output : 252Bytes
Baud rate set	Auto-negotiation	Operationg Mode	8 MODBUS/TCP, 4 HTTP, BOOTP.
Size	45mm × 99mm × 70mm	IP Address setting	Window Command, BOOTP
Weight	150g	Power Dissipation	60mA typical @24Vdc
Certification	cUL _{us} / CE	Comm. Sp(Kbps)	10/100Mbps

* Specifications and designs may change without advance notice
**Class II, adjacent to voltage rating (30Vmax.)

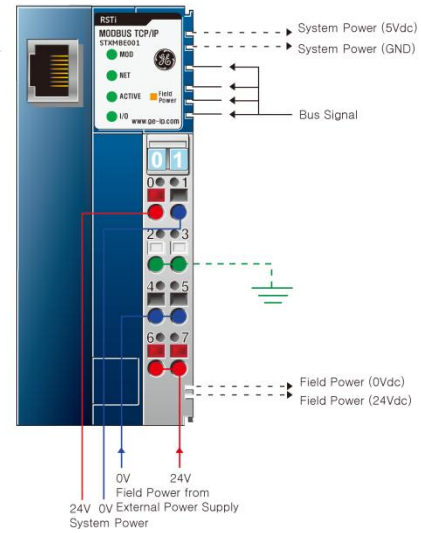
2. Communication and Power Cable Wiring

2-1 EtherNet Wiring



MODBUS Electrical Interface

RJ-45	Signal Name	Description
1	TD+	Transmit +
2	TD-	Transmit -
3	RD+	Receive +
4	-	-
5	-	-
6	RD-	Receive -
7	-	-
8	-	-
Case	Shield	-



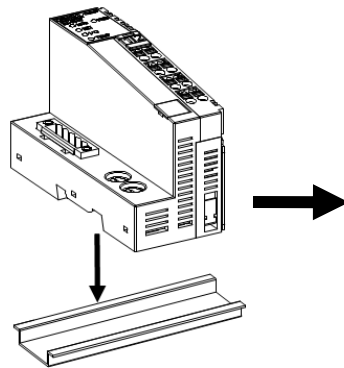
2-2 RJ-45 PIN NO.

RJ-45	Signal Name	Description
1	TD+	Transmit +
2	TD-	Transmit -
3	RD+	Receive +
6	RD-	Receive -
Case	Shield	

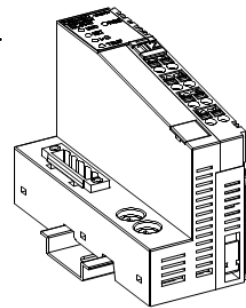
3. Module Mounting

3-1. How to mount on Din-Rail

- Press down the module lightly on the Din-Rail until it clicks.

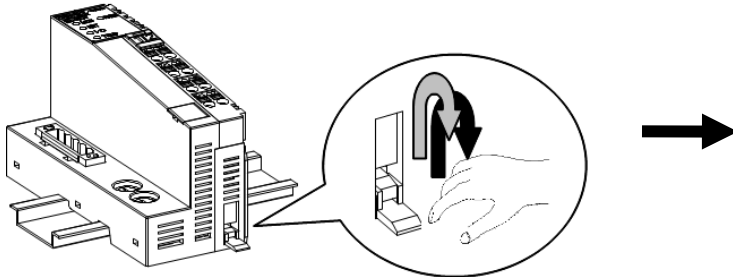


- Press down till you can hear "click" for complicated mount.

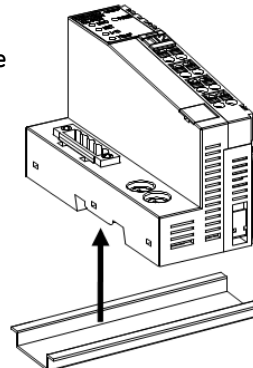


3-2 How to dismount from Din-Rail

- Pull down the locking mechanism by using (-) screw driver as the following pictures;




- Pull up the module to remove from the din rail.



4. Status LED Display

RSTI
MODBUS TCP/IP
 STXM8E001



MOD
 NET
 ACTIVE
 I/O

Field Power
 www.ge-ia.com

Item	LED is	State	To indicate :
MOD LED	Off	No Power	No power is supplied to the unit.
	Solid Green	Device Operational	The unit is operating in normal condition.
	Flashing Green	Device in Standby	The device needs commissioning due to configuration missing, incomplete or incorrect.
	Green/Red Toggle	MODBUS Error	MODBUS error such as watchdog error, etc.
	Flashing Red	Minor Fault	Recoverable Fault - EEPROM sum check error.
	Solid Red	Unrecoverable Fault	The device has an unrecoverable fault. - Memory error or CPU watchdog error.
LINK LED	Off	Not Powered	Device is not on-line or may not be powered
	Solid Green	Adapter physical connected	Adapter Ethernet Controller Physically connected
ACTIVE LED	Off	Not Powered	Device is not on-line or may not be powered
	Flashing Green	Adapter exchange data	Adapter (Slave) exchange data/Traffic present. About 10msec flashing.
Field Power LED	Off	Not Supplied Field Power	Not supplied 24V dc field power
	Solid Green	Supplied Field Power	Supplied 24V dc field power
I/O LED	Off	Not Powered No IO Module	Device has no IO module or may not be powered
	Flashing Green	Bus On-line, Do not Exchanging I/O	Bus is normal but does not exchanging I/O data (Passed the IO module configuration).
	Solid Green	Bus Connection, Run Exchanging IO	Exchanging I/O data
	Solid Red	Bus connection fault during exchanging IO	One or more IO module in fault state. - Changed IO module configuration. - Bus communication failure.
	Flashing Red	IO Configuration Failed	Failed to initialize IO module - Detected invalid IO module ID. - Overflowed Input / Output Size - Too many IO module - Initial protocol failure - Vendor code mismatch

5. Important Product Information

Release Information

Part Number	Hardware Version	Firmware Version	Date
STXMBE001-AA	20.00	20.00	Jul 2012

Upgrades

NA

Compatibility Issues

NA.

Problems Resolved in this Release

NA.

New Features and Enhancements in this Release

NA.

Restrictions and Open Issues

Subject	Description
Slice IO node system power up sequence issue.	<p>If the Network Adapter and ST-7xxx Power modules on the same Slice IO node are power cycled at different times, the Network Adapter may power up in fault mode.</p> <p>To recover from the fault, power cycle the node such that Network Adapter and Power modules are power cycled together or the node is powered up following the sequence such that the power module farthest from the Network Adapter is powered up first.</p> <p>For example in a node having modules as below:</p> <p>STXMBE001+IO Modules ... +ST-7511+IO Modules ... +ST-7511+IO Modules</p> <p>In the above system power cycle the STXMBE001 and the two ST-7511 modules together or power OFF the entire node and then power ON the second ST-7511 and then the first ST-7511 and then the STXMBE001.</p>

Operational Notes

If network has a router with active DHCP server and power is cycled for the Modbus TCP/IP network adapter, then the adapter may not retain the IP address configured using ARP or 'GE IP BOOTP Server Software'. To retain the IP address configured using ARP or 'GE IP BOOTP Server Software' during power cycles, either disable the IP address setup using BOOTP (refer GFK-2799, RSTi Modbus Network Adapter Manual) or in router configure the DHCP server as inactive.