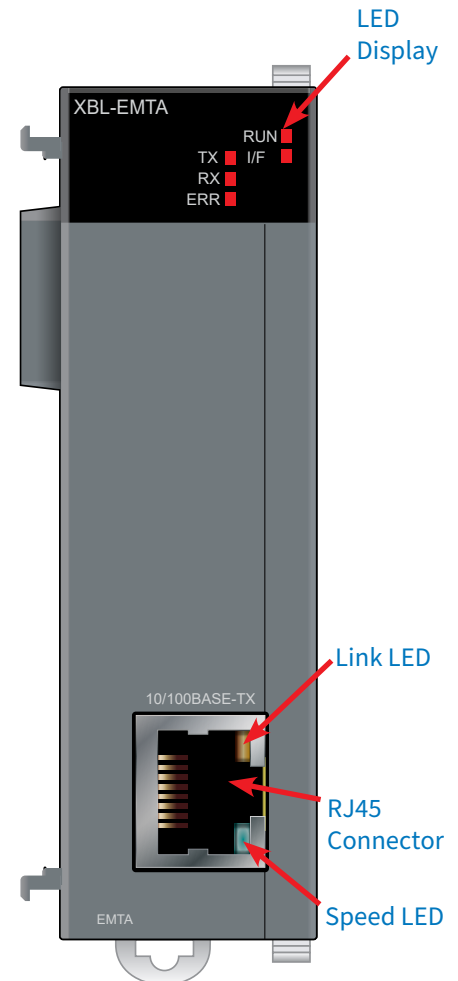# LS ELECTRIC

# XGB Communication Modules

## XBL-EMTA Communication Module

XBL-EMTA is an Ethernet expansion module that supports Modbus TCP Client/Server and XGT protocol.

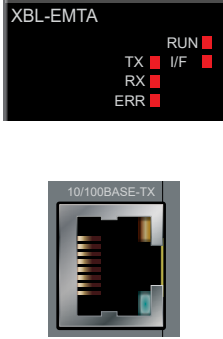| Part Number | Price | Classification | Description | Drawing |
|---|---|---|---|---|
| **XBL-EMTA** | $199.00 | Communication Module | LS Electric XGB communication module, Modbus TCP and LS XGT protocol, 1 port, (1) Ethernet 10/100Base-T (RJ45) port(s). For use with LS Electric XGB series PLCs. | PDF |

| General Specifications | | XBL-EMTA |
|---|---|---|
| Transmission Standard | Speed | Auto/10M/100Mbps |
| | Type | Base band |
| | Flow Control | HALF/FULL |
| | Modulation Type | NRZI |
| | Transformer CT | 1:1 |
| | Maximum Distance between Nodes | 100m |
| | Minimum Distance between Nodes | 1m or more[1] |
| | Max. Number of Nodes | Hub connection |
| | Max Protocol Size | Data 512 bytes |
| | Communication Zone Access Method | CSMA/CD |
| | Frame Error-Checking Method | CRC32 |
| Diagnosis Function | | HS link station no., IP/Subnet mask IP/Gateway IP/DNS Server IP, Main service/HS Link/P2P enable, Setting media, Hardware/software version |
| Number of Connections (Client/Server) | XGT server or Modbus | 4 channels |
| | Remote 1 | 1 channel |
| | Remote 2 | 1 channel |
| Maximum Units per CPU | | 2 |
| Maximum Setting Data Size Per Block | Dedicated | 4 channels, 512 bytes |
| | HS Link | 64 blocks, 200 words per block |
| | P2P | 3 channels, 32 blocks, 512 bytes |
| | Remote | Max 1 channel server, 1 channel client |
| Current Consumption | | 5VDC: 300mA |
| Weight | | 71g |

1 - When using a cable of less than 1m, the SNR (Signal to Noise Ratio) decreases due to the influence of refleced waves, which may cause Link Down or packet loss.
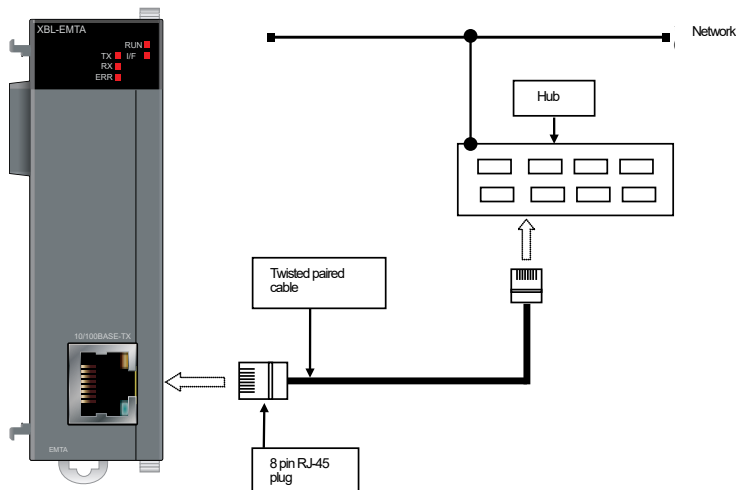


LED Display

XBL-EMTA

RUN
TX    I/F
RX
ERR

10/100BASE-TX

Link LED

RJ45 Connector

Speed LED

EMTA

# LS ELECTRIC  XGB Communication Modules

## XBL-EMTA Communication Module Interface

### Device LED Functionality

| Faceplate View | LED | Status | Meaning |
|---|---|---|---|
| XBL-EMTA<br>RUN<br>TX I/F<br>RX<br>ERR<br><br>10/100BASE-TX | RUN | On | Normal operating |
| | | Off | Stop operating |
| | I/F | Flicker | Interface with CPU |
| | | Off | Stop interface with CPU |
| | TX | Flicker | Transmitting data |
| | | Off | Not transmitting data |
| | RX | Flicker | Receiving data |
| | | Off | No receiving data |
| | ERR | On | Hardware error |
| | | Flicker | Software error |
| | LINK LED (Yellow) | Flicker | Receiving packets |
| | | Off | Not receiving packets |
| | Speed LED (Green) | On | 100Mbps operating speed |
| | | Off | 10Mbps operating speed |

## Wiring and Installation

### Network Connection



### RJ45 Cable Wiring



**TIA/EIA 568A Wiring**

1. White and Green
2. Green
3. White and Orange
4. Blue
5. White and Blue
6. Orange
7. White and Brown
8. Brown

**TIA/EIA 568A Crossed Wiring**

**TIA/EIA 568B Wiring**

1. White and Orange
2. Orange
3. White and Green
4. Blue
5. White and Blue
6. Green
7. White and Brown
8. Brown

**TIA/EIA 568B Crossed Wiring**

**Figure A**

*Shows the Pin Out of Straight through Cables*

**Figure B**

*Shows the Pin Out of Crossover Cables*