



MA-11/12/21/22

FRnet For PLC I/O Link



Functional Description

The MagicWire series products from ICP DAS enables PLCs to talk to each other via DIO ports without adding network interface, such as Ethernet, CAN bus, Profibus, etc. By using MagicWire, many systems with non-networking PLCs can upgrade the communication capability immediately and can let the system perform like it consists of high-cost networking PLCs. The serial communication of the MagicWire is wire-saving and suitable for the long distance remote control design. The MagicWire provides communication with no software overhead; it can make 1:n data transmission; the data communication is fast and isochronous. The MagicWire reduces the wire, the time, and the labor needed to construct a system; hence, it reduces the cost.

The MA-11, -12, -21, and -22 are MagicWire products designed to connect Mitsubishi Q series and A series PLCs via TTL DI/DO. Other compatible pin assignment PLCs can use these products as well. ICPDAS will continue to develop more MagicWire products to support other applications.

Ordering Information

MA-11	250K/1M bps, SA (0.1),(2.3),(4.5),(6.7)
MA-12	250K/1M bps, RA (0.1),(2.3),(4.5),(6.7)
MA-21	250K/1M bps, SA (8.9),(10.11),..., (14.15)
MA-22	250K/1M bps, RA (8.9),(10.11),..., (14.15)

Applications

- Remote Data Transmission and control
- PLC Communication
- Industrial Automation
- 4D Theater

Specifications

- TTL logical level interface
- Connector: Fuji Female connector
- Connection:
 - Use MA-12/22 to connect the TTL input module of PLC, such as Mitsubishi A1SY71, QY71
 - Use MA-11/21 to connect the TTL output module of PLC, such as Mitsubishi A1SX71, QX71

Note:

A two-wire communication cable connects MA-11/21 and MA-12/22. If the distance is less than 10m, a single power supply can provide the two modules by directly connected the power cable to each other. Otherwise, each module should have an independent.

Features

- Networking the traditional PLCs just in a few minutes
- Connecting to other FRnet products very easily
- Two-Wire Cabling (Wire-saving)
- No software overhead
- Isochronous DI/DO processing
- Supporting broadcasting (1:n data transmission)

General Specifications

- Power consumption: 24V @ 50mA (Max)
- Operating temperature: 0°C to 55°C
- Storage temperature: -20°C to 65°C
- Operating humidity: 35 to 85% non-condensing
- Storage humidity: 35 to 85% non-condensing
- Dimensions: 73 mm x 56 mm x 14 mm