

Communication Module

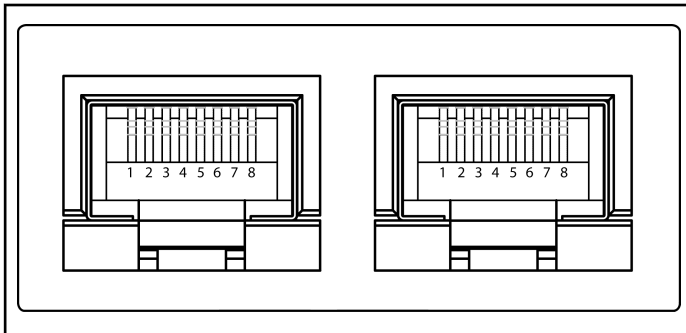
Multi-Ethernet Card

Interface, LED Indication

Product Insert

R912006847**Edition 02**

Multi-Ethernet Interface

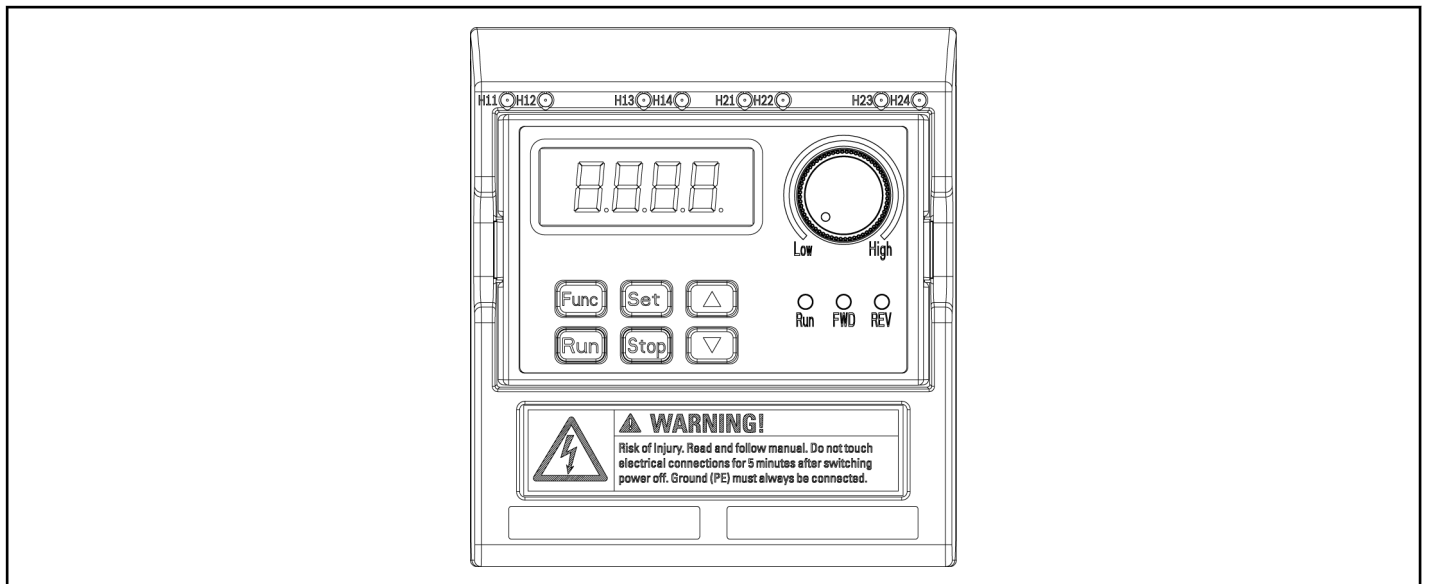


Multi-Ethernet RJ45 interface

| Pin | Terminal sign | Function description |
|-----|---------------|--------------------------------|
| 1 | RX+ | Data receiving terminal (+) |
| 2 | RX- | Data receiving terminal (-) |
| 3 | TX+ | Data transmission terminal (+) |
| 4 | NC | Not used |
| 5 | NC | Not used |
| 6 | TX- | Data transmission terminal (-) |
| 7 | NC | Not used |
| 8 | NC | Not used |

Pin definition of Multi-Ethernet RJ45 interface

Multi-Ethernet Card LED



Multi-Ethernet card LED

| LED | Function | Supported protocol | Status | Description |
|------------------|---|---|----------------------------|---|
| H11 [®] | Multi-Ethernet card and fieldbus status | <ul style="list-style-type: none"> PROFINET EtherNet/IP Modbus/TCP | Continuous off | Multi-Ethernet card <ul style="list-style-type: none"> does not have a valid IP address has not seen an ethernet link powered off an MEP firmware update process is running |
| | | | Blinking green | Does have a valid IP address, but no cyclic connection was established |
| | | | Continuous green | Cyclic connection is established and it is free of errors |
| | | | Blinking red | Cyclic connection was terminated unexpectedly |
| | | | Continuous red | Duplicate IP address in network detected |
| | | | Blinking green/red | Multi-Ethernet card is in power up mode and is conducting a self-test |
| | | Sercos III | Continuous off | NRT state (no Sercos III communication) |
| | | | Continuous orange | Communication phase 0 |
| | | | Orange with 1 green pulse | Communication phase 1 |
| | | | Orange with 2 green pulses | Communication phase 2 |
| | | | Orange with 3 green pulses | Communication phase 3 |
| | | | Continuous green | Communication phase 4 |
| | | | Blinking green/orange | Hotplug phase 0 |
| | | | Green with 1 orange pulse | Hotplug phase 1 |
| | | | Green with 2 orange pulses | Hotplug phase 2 |
| | | | Blinking green | Switched from Fast-Forward to Loopback (e.g. due to link loss at one port) |
| | | | Blinking red/orange | Application error |
| | | | Blinking green/red | Warning for MST losses exceeded half of tolerable losses |
| | | | Continuous red | Communication error |
| | | | Blinking orange | Identification |
| | | | Blinking red | Firmware watchdog error |
| | | EtherCAT | Continuous off | Status INIT |
| | | | Blinking green | Status PRE-OPERATIONAL |
| | | | Green light blinking once | Status SAVE-OPERATIONAL |
| | | | Green light steady on | Status OPERATIONAL |
| | | | Blinking red | Configuration error |
| | | | Red light blinking once | Synchronization error |
| | | | Red light blinking twice | Timeout – watchdog |

| LED | Function | Supported protocol | Status | Description |
|----------------------|--|---|--------------------|--|
| H12 ^① | Frequency converter application status | | Continuous off | Frequency converter is powered off or no communication between fieldbus platform and base drive system |
| | | | Blinking green | Frequency converter is in STOP state, no errors pending |
| | | | Continuous green | Frequency converter is in RUN state, no errors pending |
| | | | Blinking red | Frequency converter is in RUN state, a warning is pending |
| | | | Continuous red | Frequency converter is in STOP state, an error is pending |
| | | | Blinking green/red | N/A |
| H13/H14 ^① | Ethernet line status | ► PROFINET ► EtherNet/IP ► Sercos III ► Modbus/TCP | Continuous off | No Ethernet link established at the appropriate Ethernet port |
| | | | Green | Ethernet link was established |
| | | | Flickering yellow | Activity on Ethernet line (telegram transmission) |
| | | ► EtherCAT | Continuous off | No Ethernet link established at the appropriate Ethernet port |
| | | | Green | Ethernet link was established |
| | | | Flickering green | Activity on Ethernet line (telegram transmission) |

Multi-Ethernet card LED

Note^①:

- H11, H12 and H13/H14 are available when the Multi-Ethernet card is installed on the left card slot
 - H21, H22 and H23/H24 are available when the Multi-Ethernet card is installed on the right card slot
- Details for parameter settings, application and security notes, see **Instruction Manual** of Multi-Ethernet card.

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