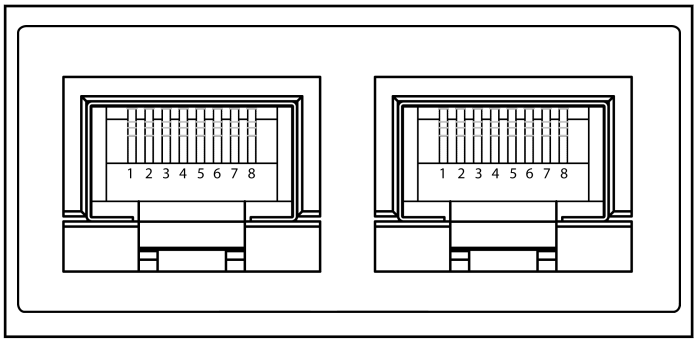
Communication Module

Multi-Ethernet Card
Interface, LED Indication

Product Insert

R912006847
Edition 02

Multi-Ethernet Interface

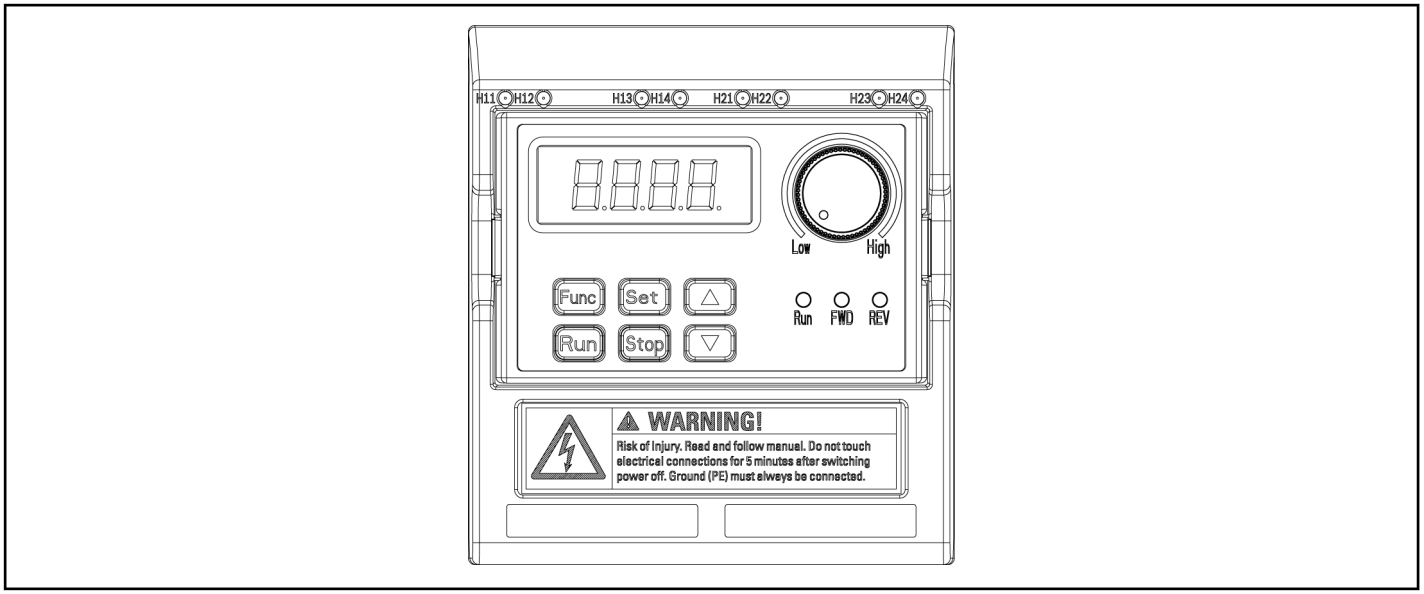


Multi-Ethernet RJ45 interface

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[1]	Multi-Ethernet card and fieldbus status	▶ PROFINET ▶ EtherNet/IP ▶ Modbus/TCP	Continuous off	Multi-Ethernet card ▶ 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.

Bosch Rexroth AG
Electric Drives and Controls
Bgm.-Dr.-Nebel-Str. 2
97816 Lohr, Germany
Phone +49 9352 18 0
service.svc@boschrexroth.de
www.boschrexroth.com/electrics

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