

Omron Host Link Master

Omron Host Link implements communication CPU Units that are compatibles with C-mode commands via Host Link. The communications blocks are dynamically created according to the pooling cycle defined on the Access Type for each Device Point.

Heading 2 for a New Section

Communication Driver Name: OmronHostLink

Implementation DLL: T.ProtocolDriver.OmronHostLink.dll

Protocol: Host Link Interface protocol

Interface: Serial

Equipments supported: CS/CJ/CP-series CPU Unit or NSJ Controller

Communication block size: 29 Word Addresses

Protocol Options: Block Size, Ignore Non-critical error, and Change the PC mode for Writings

PC Hardware requirements: Standard PC with RS232 port

Supported Operands:

Operand	Read	Write	Data Type	Address Size
IR – Internal Relay	Yes	Yes	Word	2 bytes
SR – Extended Relay	Yes	Yes	Word	1 bit
HR – Holding Bit	Yes	Yes	Word	2 bytes
AR - Auxiliary Bit	Yes	Yes	Word	2 bytes
DM – Data Memory	Yes	Yes	Word	2 bytes
PV – Timers/Counter Value	Yes	Yes	BCD	2 bytes
TC – Timer/Counter Status	Yes	Yes	BCD	2 bytes

Channel Configuration

Protocol Options

Max Block Size: Determines the maximum block size. Default: 29 Word Addresses

Ignore Non-Critical Error: Indicates the driver's behavior when the PLC returns a non fatal error status of 64:

- **True:** When it returns a Success with the 64 error code, set the tag quality to GOOD
- **False:** When it returns a Failed with the 64 error code, set the tag quality to BAD

Change the PC mode for Writings: Indicates if the communication driver should send a command that changes the PLC state to MONITOR in order to perform writing operations. If not, the writing will fail (error code 1). Default = True

Settings

Serial channels:

Default RS-232 serial port configuration

Node Configuration

Station Configuration

Serial (RS232) Channels:

The syntax is: <Device id>

Where:

- **<Device id>** is the PLC address

Multi Serial channels:

Syntax: <Port>;<Device id>

Where:

- **<Port>** is the COM port for communication (default is COM1)

Ex: COM1;0

Point Configuration

The syntax for the communication points is: <Memory Area>:<Address>

The Valid memory areas are:

- IR Internal Relay Bit Area
- HR Holding Relay Bit Area
- AR Auxiliary Relay Bit Area
- LR Link Relay Area
- DM Data Memory Area
- PV Timer/Counter Present Value Area
- TC Timer/Counter Status Area

Ex:

- CA:0 Memory Area = CA, Address = 0
 - CIO:20 Memory Area = CIO, Address = 20
 - EM0:1 Memory Area = Extended Memory 0, Address = 1
 - EM6:1 Memory Area = Extended Memory 6, Address = 1
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Troubleshoot

The status of the driver's execution can be observed through the diagnostic tools, which are:

- Trace window
- Property Watch
- Module Information

The above tools indicate if the operations have succeeded or have failed. A status of 0 (zero) means communication is successful. Negative values indicate internal driver errors, and positive values indicate protocol error codes.

PLC Error Code	Description
1	Not executable in RUN mode
2	Not executable in MONITOR mode
4	Address over (CPM1 PLCs)
5	Invalid Header
6	Invalid Address
7	Invalid block size
11	Not executable in PROGRAM mode

19	FCS error
20	Format error
21	Entry number data error
22	Command not supported
24	Frame length error
25	Not executable
35	User memory write-protected
163	Aborted due to FCS error in transmit data