Omron Hostlink Connector

NX-Series (NX102-9020)

- Name: **OmronHostLink**
- Version: 1.1.0.0
- Protocol: Host Link
- Interface: Serial
- Runtime: Multiplatform
- Configuration:
  - Devices / Protocols

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Overview

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.

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 – Timer/Counter Present Value	**Yes**	**Yes**	BCD	2 bytes
TC – Timer/Counter Status	**Yes**	**Yes**	BCD	2 bytes

Channel Configuration

Protocol Options

- **BlockSize:** Determines the maximum block size. Default is 29 Word Addresses
- **Ignore Non Critical Error:** Indicates the driver behavior when the PLC returns the 64 status that is a non fatal error:
  - **True:** If it returns a Success with the 64 error code, set the tag quality to GOOD
  - **False:** If it returns a Failed with the 64 error code, set the tag quality to BAD
- **Change the PC mode for Writings:** Indicates whether the communication driver should send a command that changes the PLC state to MONITOR in order to perform writing operations, otherwise the writing will fail (error code 1). Default is True

Settings - Serial channels:

Default RS-232 serial port configuration.

Node Configuration

Station Configuration - Serial (RS232) Channels

Syntax: ***<Unit Number>***

Where:

- ***<Unit Number>*** is the PLC address

Station Configuration - Multi Serial channels:

Syntax: ***<ComPort>; <Unit Number>***

Where :

- ***<Port>***: COM port for communication (default is **com1**)
- ***<Unit Number>*** is the PLC address

E.g.: ***com1; 0***

Points Configuration

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

The Valid Memory areas are:

Valid Memory Areas
IR – Internal Relay
SR – Extended Relay
HR – Holding Bit
AR - Auxiliary Bit
DM – Data Memory
PV – Timers/Counter Value
TC – Timer/Counter Status

E.g.:

OmronHostLink supports these memory areas (from source): **IR** (I/O Relay, 0-511), **HR** (Holding Relay, 0-99), **AR** (Auxiliary Relay, 0-27), **LR** (Link Relay, 0-63), **DM** (Data Memory, 0-9999), **TC/PV** (Timer/Counter Present Value), **SR** (Status Relay, 233-255).

Examples: `"IR:0"`, `"DM:100"`, `"HR:5"`, `"SR:253"`.

Troubleshoot

Common errors	
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

Driver Revision History

OmronHostLink Revision History	
Version	**Notes**
1.1.0.0	Initial release on new documentation standards.

In this section...