

Omron Master – READ ONLY – using FINS Commands-UDP and RS232

OmronFins implements communication with CS/CJ/CP-series CPU Unit or NSJ devices that are compatibles with FINS. It operates as a Master on UDP or serial networks. The communications blocks are dynamically created according to the pooling cycle defined on the AccessType for each Device Point.

Summary Information

Communication Driver Name: OmronFins

Implementation DLL: T.ProtocolDriver.OmronFINS.dll

Protocol: FINS protocol

Interface: UDP and Serial

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

Tested Equipment: SYSMAC CJ2M CPU34 and CPU35 using UDP/FINS

Supported Operands

Operand	Read	Write	Data Type	Address size
CIO – CIO	Yes	Yes	Word	2 bytes
WR – Work Area	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
TA – Timers	Yes	Yes	BCD	2 bytes
CA – Counters	Yes	Yes	BCD	2 bytes
EM# – Extended Memory	Yes	Yes	Word	2 bytes

Channel Configuration

Protocol Options

Mode: Determines the compatible equipment:

- **CS1:** CS/CJ series compatible
- **CV:** CV/CVM1 series compatible

Network: Represents the FINS network. This information is related to the Master

Node: Represents the computer Node in the FINS network. If the number 0 is specified, the driver assumes the last octet of the IP Address as the Node number (for UDP Interface)

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

- **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

Node Configuration

PrimaryStation Configuration

Serial channels:

Station syntax: <Network>;<Node>;<Unit Id>

Where:

- **<Network>** = Represents the FINS network where the device is located
- **<Node>** = Represents the device Node number in the FINS network
- **<Unit Id>** = Represents the Device ID in the FINS network

E.g.: 0;1;0

UDP channels:

Station syntax:<IP address>;<Port>;<Network>;<Node>

Where :

- **<IP address>** = The IP address of the device in the network
- **<Port>** = The UDP port where the device is listening (default is 9600)
- **<Network>** = Represents the FINS network where the device is located
- **<Node>** = Represents the Device Node number in the FINS network

E.g.: 192.168.1.101;9600;1;0



Note

When using multiple nodes, the UDP port must be different for each Node.

Point Configuration

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

For more information about the valid operands, see [Supported Operands](#).

E.g.:

- 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

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.