

GE Fanuc – Ethernet using SRTP protocol

The GeFanuc_Ethernet communication driver implements communication with GeFanuc PLCs using its SRTP protocol. It operates as a Master on TCP/IP networks. The communication blocks are dynamically created according to the pooling cycle defined on the AccessType for each point.

Summary Information

Communication Driver Name: GeFanuc_Ethernet

Implementation DLL: T.ProtocolDriver. GeFanuc_Ethernet.dll

Protocol: SRTP

Interface: TCP/IP

PLC types supported: Series 90 PLC and compatibles

Communication block size: User configurable. Default is 512

Max number of nodes: User defined

PC Hardware requirements: Standard PC Ethernet interface board

Supported Operands:

Register Type	Read	Write	Data Type
%I - Discrete Input	Yes		Bit
%Q - Discrete Output	Yes	Yes	Bit
%T - Discrete Temporary	Yes	Yes	Bit
%M - Discrete Internal	Yes	Yes	Bit
%G - Global Genius Data	Yes	Yes	Bit
%AI - Analog Input	Yes		Word
%AQ - Analog Output	Yes	Yes	Word
%R - Internal Register	Yes	Yes	Word
%W – Bulk Memory	Yes	Yes	Word

Channel Configuration

Protocol Options

BlockSize: Defines the maximum amount of items per group. The default value is 3. If the communication points are configured in sequence and the BlockSize equals 3, the driver can create the internal groups with 3 words or 24 bits.

Settings

TCP/IP:

NodeConnections: Defines the maximum number of parallel requests that will be sent to each node (asynchronous communication)

Node Configuration

Station Configuration

TCP/IP:

Station syntax: <IP address>;<Port>

Where:

- **<IP address>** = The IP address of the slave device in the GeFanuc network
- **<Port>** = The TCP/IP Port that connects to the slave device

E.g.: 192.168.1.1;18245

Point Configuration

The syntax for the GeFanuc_Ethernet communication points is: <RegisterType><Address>

Where :

RegisterType:

- %I Discrete Input
- %Q Discrete Output
- %T Discrete Temporary
- %M Discrete Internal
- %G Global Genius Data
- %AI Analog Input
- %AQ Analog Output
- %R Internal Register
- %W Bulk Memory

Address: Address number

Examples:

- %I0010 RegisterType = %I , Address = 10
 - %Q0020 RegisterType = %Q , Address = 20
 - %M0045 RegisterType = %M , Address = 45
 - %AQ0100 RegisterType = %AQ , Address = 100
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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.