GE-EGD

Description

The GE-EGD (Ethernet Global Data) driver allows the FieldServer to transfer data to and from devices over Ethernet using GE-EGD (Ethernet Global Data) protocol. The FieldServer can emulate either a Server or Client.

GE Fanuc Automation and GE Drive Systems developed an Ethernet Global Data, or EGD, exchange for PLC and computer data in 1998. EGD uses UDP or datagram messages for fast transfer of up to 1400 bytes of data from a producer to one or more consumers. UDP messages have much less overhead than the streaming TCP connection used for programming or CommReq's over SRTP Ethernet. Like Genius® broadcast input or directed control messages, UDP messages are not acknowledged. They can be sent at short intervals. Chances of one or more messages being dropped are small on a local area network.

As a Client the FieldServer acts as an EGD consumer. As a Server the FieldServer acts as an EGD producer.

The IC697CMM742 Ethernet module supports both GE SRTP and GE EGD.

Formal Driver Type

Fieldbus, Client or Server

Compatibility

FieldServer Model	Compatible	FieldServer Model	Compatible
ProtoCessor	Yes	QuickServer FS-QS-10xx	No
ProtoCarrier	Yes	QuickServer FS-QS-12xx	Yes
ProtoNode	Yes	QuickServer FS-QS-20xx	Yes
ProtoAir	Yes	QuickServer FS-QS-22xx	Yes
		QuickServer FS-QS-3x10-F	Yes

Connection Information

Connection Type: Ethernet

Ethernet Speeds Supported: 10Base-T, 100Base-T; Refer to Instruction Manual for speed supported by particular FieldServer model.

Multidrop Capability: Yes

NOTE: Not all FieldServer models support 100BaseT. Consult the appropriate instruction manual for details of the Ethernet speed supported by specific hardware.

Communication Functions

Data Types Supported

FieldServer Data Type	Description (or Device Data Type)
Byte	
Bit	(translated as 8bits aligned with a byte boundary)
Word	(unsigned 16bit integer)
Dword	(unsigned 32bit integer)
Int	(signed 16bit integer)
Long	(signed 32bit integer)
Float	(translated as an IEEE 4 byte real number)
Double	(translated as an IEEE 8 byte real number)

GE Specific Data Types Supported

FieldServer as a Client	FieldServer as a Server
%R	Register memory in word mode P/C
%AI	Analog input memory in word mode P/C
%AQ	Analog output memory in word mode P/C
%I	Discrete input memory in byte mode P/C
%Q	Discrete output memory in byte mode P/C
%T	Discrete temporary memory in byte mode P/C
%M	Discrete momentary memory in byte mode P/C
%SA	Discrete system memory group A in byte mode P/C
%SB	Discrete system memory group B in byte mode P/C
%SC	Discrete system memory group C in byte mode P/C
%S	Discrete system memory in byte mode P/C
%G	Discrete global data table in byte mode P/C