7188EF-016L/H

FRnet Embedded Controller

PIN Assignment Software Manual

~NEW~

Functional Description

The I-7188EF-016L /H is an embedded controller with Isolated FRnet and Ethernet ports. MiniOS7 is pre-installed and ready to run custom C software programs. The I-7188EF series can be programmed as an autonomous controller to control distributed FR-2000 I/O modules via FRnet. Each I-718EF module can control up to 16 groups. Group numbers range from 0 to 15, and each group has 16 I/O channels. In other words, each I-7188EF can control up to maximum of 128 digital output channels and 128 digital input channels. In addition to being used as a standalone controller, it can be connected to a host PC via an Ethernet port. The "-H" denotes the high speed version and the "-L" denotes the low speed version. Users can select an appropriate version suitable for the application.

Features

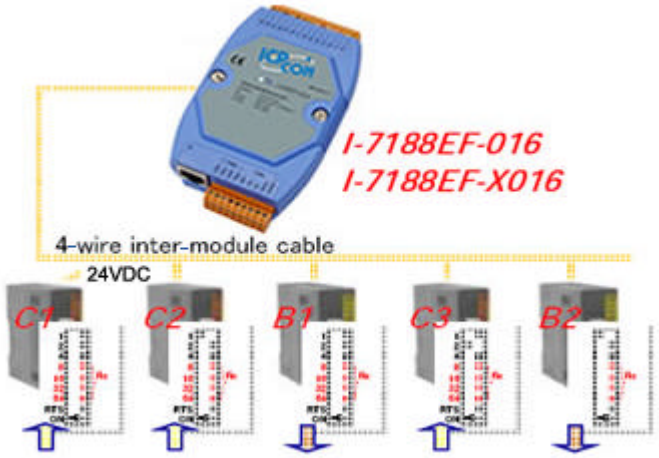
- Innovative Token-stream communication technology
- Real I/O synchronization capability
- Real deterministic control
- Fixed scan time:
  128 input /128 output points @ 2.9mS (-016L version)
  128 input /128 output points @ 0.7mS (-016H version)
- Ultra-high speed distributed I/O control capability
- Memory-mapping I/O programming
- Easily programmable
- No transmission protocol required, therefore, meaning no software overhead
- Two-wire cabling
- Built-in MiniOS7 operating system

Advantages of the FRnet Embedded Controller

When compared to a PC-based FRnet control system, a FRnet embedded controller is smaller and cheaper while still able to meet the demands of timing-critical control missions, The special features of FRnet, such as Real I/O synchronization and fixed scan time, allow the FRnet embedded controller to feature PLC-like control functions. The I-7188EF series can connect to FR-2000 distributed I/O modules to implement a ultra high speed distributed I/O control system. Since FRnet uses memory-mapping I/O programming, users need only a few minutes to learn FRnet I/O programming. Each I-7188EF module can handle up to 128 digital input channels and 128 digital output channels. I-7188EF modules have an Ethernet port to enable connections to either intranet or internet, and an RS-485 port to control our I-7000 data acquisition modules. By using the I-7188EF, it is easy to implement a control system of up to 1000 channels.

Specifications

- RDC 80188 compatible CPU
- SRAM: 512Kbytes
- Flash RAM: 512Kbytes
- NVSRAM: 31bytes
- EPROM: 2048bytes
- Real time clock
- Ethernet port: 10 Base-T
- COM1: RS-232(TXD, RXD, RTS, CTS, GND)
- COM2: RS-485(D1+, D1)
- Communication speed
- 250Kbps (for I-7188EF-016L)
- 1Mbps (for I-7188EF-016H)
- Scan time:
  128 input /128 output points @ 2.9mS (I-7188EF-016L)
  128 input /128 output points @ 0.7mS (I-7188EF-016H)
- Communication distance
  Max. 400m (I-7188EF-016L)
  Max. 100m (I-7188EF-016H)
- Cable: CPEV 0.9 (2P Twisted-pair wire)
- Operation temperature: 0°C +55°C
- Storage temperature: -20°C +65°C
- Humidity: 35 85%
- Power requirements: 10-30VDC
- Power consumption: 3.0 Wmax.
- Dimensions: 123mm x 72mm x 33mm



Applications

- Factory Automation

Ordering Information

7188EF-016L	FRnet Embedded Controller,250Kbps
7188EF-016H	FRnet Embedded Controller,1Mbps
7188EFD-016L	FRnet Embedded Controller with LED display,250Kbps
7188EFD-016H	FRnet Embedded Controller with LED display,1Mbps

back