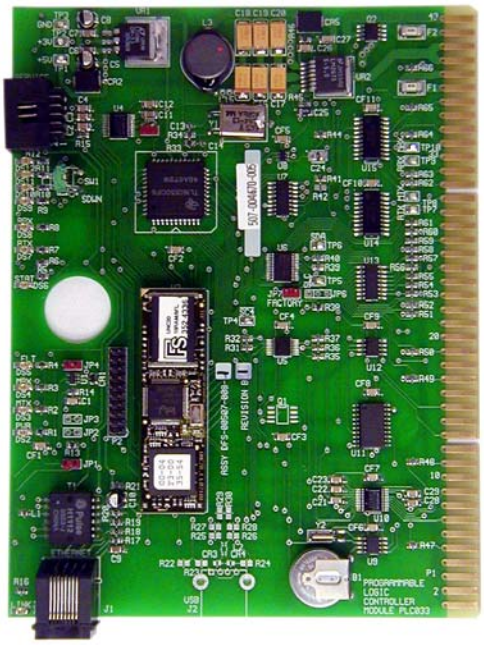
Programmable Logic Controller

DFS has been incorporating RTU PLC local control since the early 90s. The capabilities of our PLC have grown to meet the needs of our customers and beyond.



The PLC800 is our latest, microprocessor-controlled, programmable logic controller (PLC) module and is designed for implementing local logical control at the RTU. This new PLC module provides more memory and processor power. The PLC800 is downward compatible with all PLC033 applications.

The PLC800 includes the features needed for today's operational requirements: Industrial Ethernet, full Linux OS, RS-232, RS-485, full Modbus support, and ladder logic programming. The new USB port facilitates program updates, enhances customer support, and enables a planned data-logging application.

The PLC800 coupled with the provided Process Management Tool (PMT) is so versatile that it literally provides all the front-end functionally required for operators to control and monitor their processes in today's industrial environment.

The PLC800's Ethernet port and serial port (either RS-232 or RS-485) can be used to expand the PLC800's functionality. In addition to being the PLC800's programming interface, the on-board Ethernet port enables the PLC800 to function as a network slave device using either DFS NIM RTU protocol or Modbus TCP protocol. The PLC800's serial port enables it to function as a Modbus RTU/ASCII master or slave device.

Features at a Glance

- Ladder Logic Programming
- Process Management Toolkit (PMT) software included with product
- Communication and I/O parameters configured with user-friendly interface (I/O Builder)
- Modbus TCP and DFS NIM RTU-based communications via Ethernet interface
- Custom status and control screens can be created using supplied software (Screen Builder)
- Communicates with master/slave devices via serial port, which can be used as RS-232 or RS-485
- 1600 MIP ARM Cortex-A8 processor with 16 Gb of Flash ROM and 4Gb of RAM
- 1200 or 9600 baud communications with TAC II devices
- Up to 38.4 Kbps with external RS-232/RS-485 devices using Modbus RTU or ASCII protocol
- Program stored in non-volatile memory
- Real time clock for time of day functions
- 4 programmable LEDs and 8 hardware/firmware-controlled LEDs
- Monitors its own power source and saves accumulated data when a power failure is detected
- Shutdown button enables graceful shutdown of all PLC800 processes
- Surge protected (nondestructive)
- On-board communications and functional firmware
- On-board voltage regulation
- Automatically retrieves data from modules on RTU bus
- Module is removable without disturbing field wiring
- Time-tagged messages
- Battery-backed clock/calendar synchronized by telemetry
- No on-board adjustments, switches or straps (self-configuring)
- Watchdog timer
- Downward compatible with PLC033

Data Flow Systems

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Specifications

Model	PLC800
Board Size	5.25” X 6.88”
Maximum Modules Supported	15
Maximum Loop Time	600 mSec per module
Supply Voltage	8-13 VDC
Supply Current	510 mA
LEDs	4 programmable LEDs and 8 hardware/firmware-controlled LEDs (power, module receive data, module transmit data, radio receive data, radio transmit data, CPU failure, PLC800 status, and network status)

Warranty

This product carries a one (1) year return-to-factory warranty against defects in material and workmanship. When installed with factory recommended surge protection, the return-to-factory warranty is extended to three (3) years and is also covered against damage due to lightning and surge. DFS will repair or replace at its option, F.O.B. Melbourne, Florida, any part or parts of this product during the warranty period. A Return Authorization (RA) must be obtained by contacting the DFS Factory Repair Center at 321-259-5009 or by email at rma@dataflowsys.com.

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