

# F1616-BA PLC

**F-series : Ethernet, Modbus TCP/IP, Stepper Motor Drive, +Analog I/O, LCD port, RS232, RS485, Internet-TRiLOGI Ladder+Basic**

## Product Description

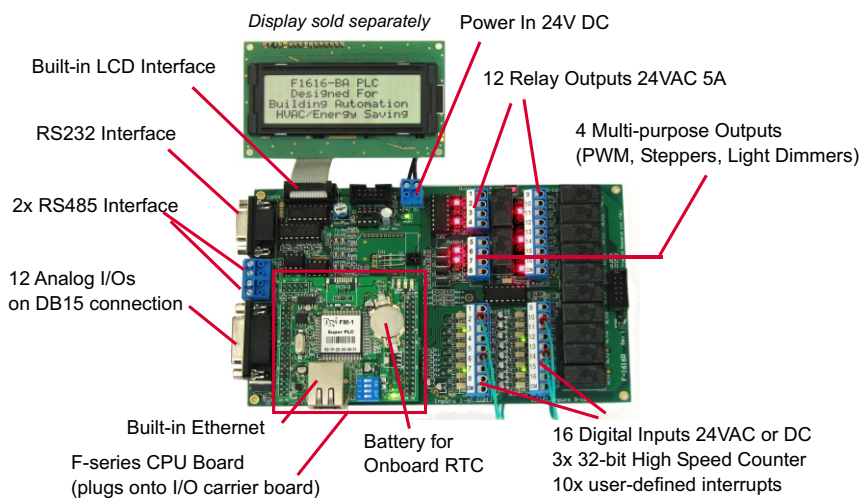
The F1616-BA PLC is part of Triangle Research's top-line F-series PLC family. Though capable as a full-function, general purpose industrial PLC, the "BA" in its part number refers to "Building Automation" and suggests its special application focus. The F1616-BA is the ideal choice for controlling "Smart Buildings", whether to it is to provide creature comfort for its occupants, or more importantly in today's world, to monitor and control the energy consumption in buildings and homes to eliminate waste, and thereby helping to achieve the Green Revolution!

Starting with the control I/Os, the F1616-BA has built-in 32 digital I/Os (expandable to 256) that interface directly to 24VAC or DC power, 8 analog inputs and 4 analog outputs that are 0 to 10V range. Among the I/Os are 4 DC outputs that can also be used as PWM or AC phase control (light dimmer type) outputs, or to drive stepper motor(s). Also, there are 3 high-speed encoder inputs, 6 incoming pulse frequency counter inputs, as well as a built-in Infrared remote control interface. Unlike other product makes, these incredible features come in the STANDARD package at no additional cost to the buyer/user.

More importantly, the F1616-BA's immense communication capability allows it to be used either as the master controller of a simple project such as in home automation, or as one of hundreds of "node controllers" in a complex building project. The built-in Ethernet port on the F1616-BA PLC hosts both a PLC web server and a Modbus/TCP server, allowing up to 6 simultaneous connections with devices such as touch panel HMIs, hardware running SCADA and PC software or other node controllers. The controller is also able to send out emails to report real time events or check a specified website to retrieve dynamic contents. More standard interfaces on the PLC include one RS232 port and two RS485 ports, all of which support industry standard MODBUS RTU or ASCII protocols. A special set of interface pins is even provided on the PLC to allow addition of a third-party radio module known as XBEE which in turn enables this controller to interface to futuristic ZIGBEE wireless sensors and control modules.

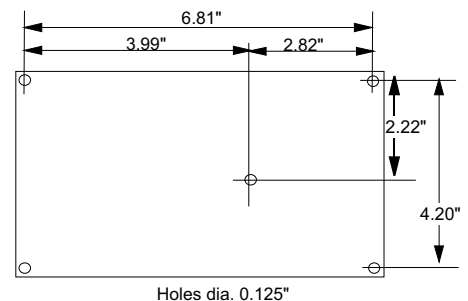
Just as notable is Triangle Research's proven i-TRiLOGI "Ladder+BASIC" programming software which makes complex programming of the F-Series (and M-Series) PLCs a whole lot easier than with standard ladder-logic programming! This great little controller is packaged to be ready immediately to interface to power meters, HVAC sensors, and/or talk to other other controllers to carry out sophisticated control tasks in a commercial building project.

Some Building Automation applications for this PLC include roles as Main HVAC controller, Slave HVAC controller for VAV or CAV boxes, Lighting control and Audio-Video (AV) equipment control (learn and send 38KHz IR remote signal).



## Mounting

(a) Hole mounting locations for direct panel mount



(b) Optional Din-Rail mounting kit available for installation on din-rails

## Accessories

- LCD Displays : LCD216 (2 lines x 16 char.), LCD420 (4 lines x 20 char.)
- Networked Display : MDS100-BW for multiple displays application or for extended mounting of display
- MD-HMI : 16-key pad with 8 LED and 4x20 LCD; plugs into LCD and expansion ports
- I/O Expansion : Exp4040 or Exp1616R (16 Opto-isolated Digital Inouts, 16 Relay Outputs)
- Auto485 : RS232 to RS485 converter
- Analog Expansion : I-7000 series Analog I/O Expansion Modules
- USB-RS232 Interface : for connection to USB port on PC
- Din Rail Mounting : Din-Kit-2