



The Falcon F-Series includes the F1000 and F3400 monitoring systems. Each of these stand alone, integration-friendly systems provides equipment protection by monitoring critical operating and environmental parameters in communication rooms, unmanned facilities, critical support systems, and enterprises worldwide.

The F-Series systems are ideal for monitoring analog (4-20mA), digital dry contact, or thermistor signals from devices such as temperature and humidity sensors, gas and smoke detectors, fire suppression systems, surveillance products, leak detection systems, power monitoring systems, uninterruptible power supplies, PDUs, generators, DC power plants, commercial power, HVAC units, ATs and TVSSs.

The F1000 and F3400 operate via embedded firmware that handles all data collection, alarm reporting, and multiple concurrent communication mediums. The embedded firmware enables system configuration, I/O setup, status inquiries, alarm reports, data logs, and troubleshooting without purchase of additional software. Both systems operate with any web browser or through direct-connect application software such as HyperTerminal.

Redundant alarm notification is possible with both F-Series systems via email, SNMP, Modbus slave RTU or TCP/IP, and paging (modem optional). Both systems can send email to up to four recipients. Also, with an optional internal PPP-enabled modem, direct dial out to up to four phone numbers is possible.

Both the F1000 and F3400 accommodate up to 4 analog, 4 digital dry contact or thermistor signals, as well as 2 relay outputs. The F3400 allows for an additional 24 digital inputs. Contact RLE for assistance in selecting the system that best suits your monitoring needs.

Key Features & Benefits

- Versatile monitoring of environmental control devices via digital, analog, or thermistor input signals
- F1000 - 8 inputs; F3400 - 32 inputs
- Convenient viewing of the 100 most recent alarms from any web browser
- Modbus plug-and-play (PnP) for easy integration with RLE Modbus-enabled equipment
- Modbus slave RTU or TCP/IP for integration to a BMS (Building Management System)
- Fully NMS (Network Management System) manageable with SNMP, Get, Sets, Traps and Informs
- Monitoring capabilities for up to 16 servers or other devices through IP addresses
- Displays images from up to 5 IP cameras or other addressable devices for intrusion monitoring
- Standard protocols include BACNet, Telnet, SNMP, Modbus (slave only) and SMTP
- Multi-protocol and redundant alarm notification to inform key people of pending problems
- Internal PPP-enabled modem option available
- RoHS compliant

Specifications

F1000 / F3400

Power	24VDC Model: 24VDC ($\pm 10\%$), 600mA max.; wall adaptor included
Inputs	
Analog/Digital	
F1000	4 Configurable as 4-20mA (12-bit A/D conversion), 4 as Digital Input or Thermistor
F3400	4 Configurable as 4-20mA (12-bit A/D conversion), 4 as Digital Input or Thermistor and 24 Digital Input (<15mA)
Outputs	
Relay	2 Dry Contact, Form C, 1A @ 24VDC, 0.5A resistive @ 120VAC
Communications Ports	
Ethernet	10 BaseT, RJ45 connector; 500VAC RMS isolation
RS-232	DB9 female connector; 9600 baud; 3000VAC RMS optically isolated; 15kV ESD protection
RS-485 (selectable as RS-232)	Two-wire half duplex; terminal block (selecting RS-232 switches to DB9 male connector); 9600 baud; 3000VAC RMS optically isolated
Modem (RJ11 Telco) - Optional	V.34bis/33.6 kbps; DTMF capable; PPP-Enabled; FCC Part 68 approved; 1500VAC RMS isolation barrier; 2100V peak surge protection; (Modem optional)
Protocols	
TCP/IP; UDP/IP; ICMP/IP; FTP; NTTP; Telnet; HTTP/HTML	IPv4.0; up to 5 URL links to other IP addressable cameras/devices; webpages comply with Rehabilitation Act of 1973, sections 504 and 508, US Dept of Education (website accessibility for computer users with disabilities)
SNMP	V1; MIB-2 compliant; NMS Manageable with Get, Set, and Traps; V2c- Traps or Informs
SMTP (email)	Supports Client Authentication (plain and login); compatible with ESMTP Servers
Modbus	RTU transmission protocol; function codes: Slave - 03; master - 01,02,03,04 (RLE leak equipment only)
Modbus/IP	Modbus Slave; TCP/IP transmission protocol
BACNet/IP	Conformance Level 1
Terminal Emulation	VT100 compatible
TAP (Pager)	Telocator Alphanumeric Protocol Ver1.8
Alarm Notification	
Pager (Modem)	4 Text, numeric and/or alphanumeric pager numbers; each Digital and Analog Alarm (HighLimit2 and LowLimit2) can notify any 4 of the 4 pagers; (Modem optional)
Email (Ethernet, Modem PPP)	4 Email recipients; email sent on Alarm and Return To Normal; each Alarm can notify any or all of the 4 email recipients; (Modem optional)
SNMP Traps (Ethernet)	8 Community Strings
Escalation	Additional notification to 1 of the 4 pager numbers when initial page results in Failure To Acknowledge status
Internal Hardware	
Real Time Clock	Battery backed; ± 1.53 min/month accuracy
Memory	512K RAM; 128K NVRAM; 64K ROM; 2M Flash
Logging Capabilities	
Alarm Log	Last 100 Alarms
Event Log	Last 100 Events (e.g., Acknowledgement By Code, System Boot, Page Successful, etc.)
Web User Access Log	Last 100 HTML Accesses (User, Date, and Time)
Digital Status Log	Last 100 Digital Status entries
Trending of Analog Inputs	244 Entries per time frame, per channel
Minute	Every minute, high/low/avg for the last 65 minutes
Hour	Every hour, high/low/avg for the last 25 hours
Day	Every day, high/low/avg for the last 7 days
Login Security	
Web Browser Access (Ethernet, Modem PPP)	1 Administrator plus 7 Users individually selectable for Read Only, Read/Write or Administrator; (Modem optional)
Terminal Emulation Access (Modem, RS232)	1 Administrator (password for both Modem and RS232) plus 1 Read Only (password for Modem only, not RS232)
Front Panel Interface	
Switches	Power: 1 (on/off)
LED Indicators	Power: 1 green (on/off); Status: 1 red (flashing = boot-up, on = alarm, off = normal); Network Link: 1 green; Network Activity: 1 green; Modem: 4 green (transmit, receive, off hook and carrier detect)
Operating Environment	
Temperature	32°F to 158°F (0°C to 70°C)
Humidity	5% to 95% RH, non-condensing
Altitude	15,000ft (4,572m) max.
Storage Environment	-40°F to 185°F (-40°C to 85°C)
Dimensions	16.8"W x 1.8"H x 7.9"D (427mmW x 46mmH x 201mmD)
Weight	6 lbs. (2.72kg)
Mounting	Rack mount, or wall mount (brackets required); WMB wall mount brackets (not included)
Certifications	CE; ETL listed: conforms to UL STD 61010-1, EN STD 61010-1; CSA C22.2 STD NO. 1010-1; RoHS compliant



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FORT COLLINS CO
970 484-6510
970 484-6650 FAX
WWW.RLETECH.COM

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