



Falcon

F1000 & F3400

The Falcon F-Series includes the F1000 and F3400 monitoring systems. Each of these stand alone, integration-friendly systems provide 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, ATSS 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 can be accessed, viewed and configured 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 four analog, four digital dry contact or thermistor signals, as well as two 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.

Features

- Versatile alarm monitoring
- Allows multiple inputs
- Convenient viewing of alarms
- Modbus plug-and-play with most of RLE's leak detection products
- Modbus, BACnet, and SNMP output
- Monitors up to 16 servers or other IP devices
- Displays images from up to five IP cameras
- Multi-protocol and redundant alarm notification

Benefits

- Monitors digital, analog, or thermistor input signals
- F1000 - 8 inputs; F3400 - 32 inputs
- Web browser accessible; no proprietary software required
- Easily integrates with RLE's Modbus-enabled leak detection equipment
- Simple integration to building management system (BMS)
- Manageable for network management system (NMS)
- Consolidates systems into one, easy-to-use monitoring solution
- Enhances security for authorized areas
- Quickly informs key personnel of pending problems

Monitoring & Notification

F1000 & F3400 Specifications

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
Communication 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; PPP-Enabled; FCC Part 68 approved; 1500VAC RMS isolation barrier; 2100V peak surge protection; (Modem optional)
Protocols	
TCP/IP; UDP/IP; ICMP/IP; FTP; NTP;	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)
Telnet; HTTP/HTML	
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 - 03, 04 (RLE leak detection 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. High, low, and average values logged over specific minutes, hours, and 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	1 Administrator (password for both Modem and RS-232) plus 1 Read Only (password for Modem only, not RS-232)
Front Panel Interface	
	1 on/off power switch. Red and green LEDs indicate status, network link, network activity, and modem activity
Operating/Storage Environment	
	Operating temperature: 32° to 158°F (0° to 70°C). Humidity: 5% to 95% RH, non-condensing. Altitude: 15,000ft (4,572m) max. Storage temperature: -40° to 185°F (-40° to 85°C)
Physical Characteristics	
	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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