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In-Reach 7104 Series



Overview

The In-Reach IR-7104 from MRV Communications is a four-slot modular, expandable, high-density alarm and control concentrator engineered to address the needs of telecommunications network service providers and corporate enterprise facilities.

Space-Efficient Design

The space-efficient design of the IR-7104 requires only 1U of rack height. It is designed to support a family of modules that provide a variety of alarm input and control output functions.

The IR-7104's expandable chassis can be populated with up to 4 high-density modules, each of which can process alarm state information from 32 wet- or dry-contact closure alarm points. A single IR-7104 can manage up to 128 alarm points.

The IR-7104 is ideally suited for wireless cellular sites, public utilities, manufacturing facilities and data centers that employ enclosure door alarms, environmental alarms, power, pressure and fluid alarms.

Distributed Architecture

The distributed architecture of the IR-7104 solution requires an In-Reach series master unit (IR-9000 or LX-4000S) connected upstream via an RJ-45/RS-232 serial interface.

The benefit of the distributed master-slave architecture is that it enables the IR-9000 master and IR-7104 slave units to efficiently manage thousands of alarm points using a single IP address.

Further, master units provide secure remote console management and remote power management of all critical network elements.

Alarm Input Option

The alarm input module contains 32 alarm points that support dry contact or isolated wet contact circuits without the need for hardware configuration changes. The alarm circuits detect the following:

- Normally open (dry contact)
- Normally closed (wet contact)
- Wet contacts with applied voltages in the range of 3.5V to 75VD
- Closure to V+ TTL level
- Closure to 0 (GND)

Features

- IP-based alarm management
- 4-slot, expandable modular design
- Up to 128 contact-closure alarm inputs
- Up to 32 control outputs
- Up to 32 analog inputs
- Distributed master-slave architecture
- Dual-feed -48 VDC-powered models
- Single-feed 100-240 VAC, 50-60Hz 1.2A maximum

Applications

- Monitor: Doors, Security, Power, Sensors, Meters, Temperature and Humidity
- Control: Power, Lighting, Cameras, Air Conditioning, Pumps and Valves

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Control Output Option

8 Form C relay control output points are available on the Control Output option module for enabling a wide range of devices, including backup power generator systems, HVAC systems, emergency lighting systems, control valves, sirens and other devices. Normally open and normally closed contacts are available on each Control Output module.

Analog Option

The Analog Option of the IR-7104 delivers 8, 4-20ma loop inputs for supporting a wide range of analog alarm sensor devices. It will accept standard 4-20 ma sensors such as battery, temperature, humidity, pressure and storage tanks.

Fault Management System

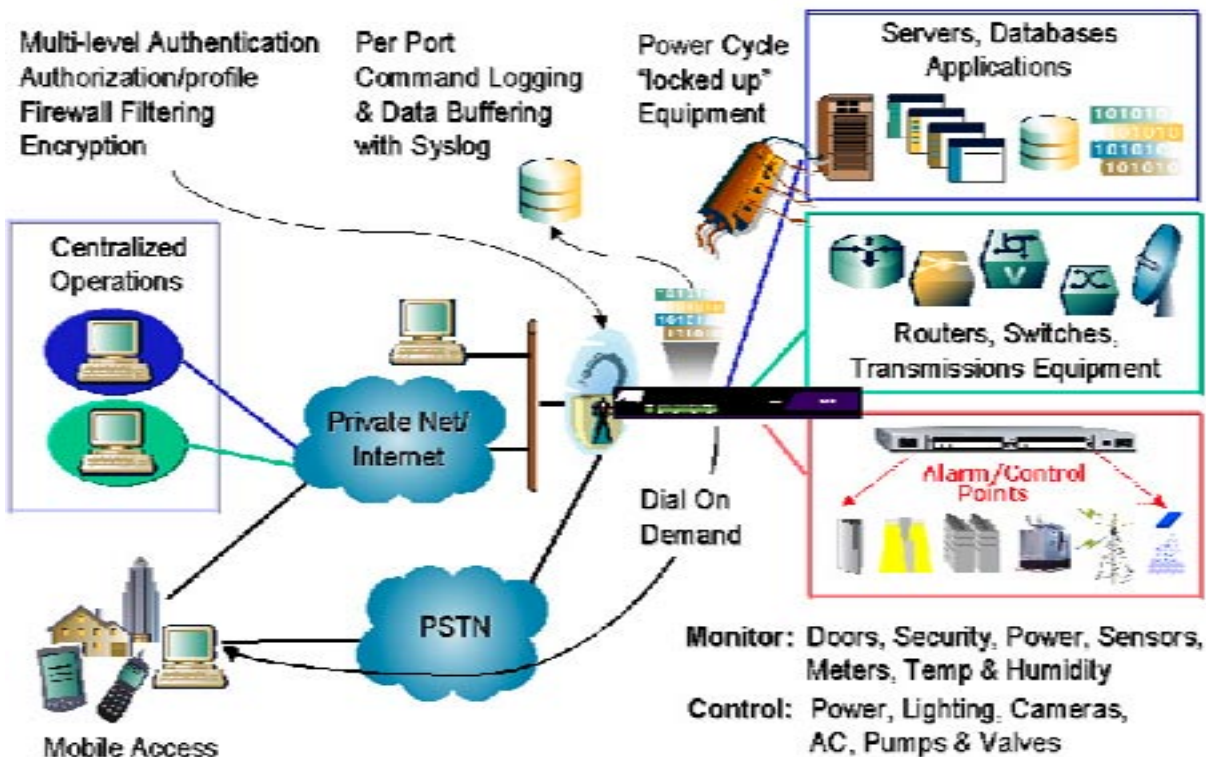
Event Horizon is state-of-the-art fault management system (FMS) software that provides NOC managers with the tools

they need to quickly identify and resolve alarm events and fault conditions. Engineered to work in concert with our In-Reach series hardware, it provides maximum efficiency and rapid return on investment.

Service and Support

Delivering value added service and support for nearly 20 years, MRV Communications provides worldwide technical assistance through a highly trained team of dedicated corporate and field based engineers as well as through certified channel partners. Whether your needs are for 24x7 dedicated support, same day replacement parts shipment, on-site support or network design and installation related professional services, you'll gain the opportunity to build a responsive and accountable partnership with the MRV service and support experts.

Remotely Provision, Monitor & Control Network Equipment, Servers & Alarms



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Technical Specifications

System Features

Dual, isolated -48V inputs
Self alarmed to detect:
• Loss of A or B -48V input
• Unit over temperature
LCD to convey detailed alarm status
Audible alarm
Remote firmware update
32 per module, up to 4 modules (max. 128)
Dry contact
Wet contacts 3.5V to 75 VDC

No. of Alarm Inputs

Connector Type

DIN

No. of Control Outputs

8 per module, up to 4 modules (max. 32)

Connector Type

Screw-type terminal

Current (max. resistive load)

Max switching DC 30V @ 1.0A, 30W

No. of Analog Inputs

8 per module, up to 4 modules (max. 32)

Connector Type

Screw-type terminal

Rack Mount Form Factor

19" or 23" 1U rack unit

Power Requirements

DC -48 VDC nominal, -36 VDC to -72 VDC, dual-feed @1A maximum
AC: :90-264VAC, 50/60Hz @1.2A maximum, 0.85A@120V, 0.43A@220V

Power Consumption

DC: 48W AC: 132W max.

Heat Dissipation

DC: 163.6 BTU/hr AC: 450 BTU/hr

Physical Dimensions

Height 4.48 cm/1.75 in Width 44.8 cm/17.48 in
Depth 30.0 cm/11.7 in Physical Weight 3.62 kg/8.0 lbs

Environment

Operating Temperature

32 to 113°F (0 to 45°C)

Storage Temperature

-4 to 140°F (-20 to 60°C)

Humidity

10% to 90% non-condensing

Diagnostic Displays

Run, master alarm, LCD status display

Safety Compliance

UL 1950, third edition; CSA C22.2 No. 950; EN 60950

Emissions/Immunity

FCC Part 15, Class A; EN55022; EN55024; EN50082-1

Compliance

EU Directives

Meets all applicable requirements of current EU directives

NEBS Compliance

NEBS-compliant design

Warranty

One year

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Ordering Information

IRM-7100-001	32-Point, Alarm Input Module. For use in IR-7104 Base Unit
IRM-7100-002	8-Point, Control Output Module. For use in IR-7104 Base Unit
IRM-7100-003	8 Analog Loop, supports 4-20ma sensors. For Use in IR-7104 Base Unit.
IR-7104-000AC	4 Slot, High Density Alarm Base unit, 110-240VAC. Supports IR-7100 Series Modules.
IR-7104-000 DC	4-Slot, High-Density Alarm Base Unit, Dual-Source -48VDC. Supports IR-7100 Series Modules.

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