IF4 INTELLITAG® SERIAL RFID READER

Gamma Solutions

Product Profile

- **An intelligent peripheral – capable of internal filtering to reduce network traffic**
- **Software configurable to read/write EPC Class 1, EPC Gen 2 and ISO tags**
- **Factory configurable to operate in 865MHz, 869MHz, 915MHz or 950MHz RFID bands**
- **Directly monitors and controls presence detectors and signal lights**
- **Downloadable firmware for migration path to ISO 18000-6c**

Joining a diversified line of RFID readers, the Intermec® Intellitag® IF4 serial reader is the ideal RFID peripheral for applications where an edge server or Programmable Logic Controller (PLC) is used for process control. The IF4 reduces the communications burden on the network and processing demand on the host PLC.

While reading and writing RFID labels and tags, the IF4 uses an air-interface protocol for filtering out unneeded tag data caused by multiple reads and tags not required for the application.

General purpose input/output (I/O) circuitry enables the IF4 to monitor and/or control peripheral devices while keeping the cost of ancillary equipment and installation down.

After the IF4 controls the selection of appropriate tags for reading, it then combines its pre-configured application parameters with the information from the selected tags in order to activate external sensors as well as control audible and visual indicators.

For example, an IF4 reader mounted above a conveyor can be programmed to scan the destination field on all tags passing by and subsequently report that code to the PLC, which can then actuate diverter mechanisms to route the tagged package to the proper dock door.

RFID standards are continuing to evolve, which requires manufacturers and retailers to have multi-protocol reading capability if they are implementing RFID in an open supply chain. When fully equipped, via firmware downloads, the IF4 can read multiple air interface protocols, even in mixed populations of tags, including EPC UHF Generation 2 (Gen 2), ISO 18000 6-b and EPC Class 1.

The IF4 reader is factory configured to operate in either of two regional RFID frequency bands: 865 and 869MHz (Zone 1, primarily Europe), or 915MHz (Zone 2, primarily North and South America, with parts of Asia and Pacific Rim). Multi-national enterprises operating in North America, Europe and Asia no longer have

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to purchase and support multiple readers in order to cope with the different frequency bands present in each region. The IF4 readers have a common design with band-specific hardware, and are supported with common "soft radio" code.

An external auto-range adapting power supply, requiring approximately 2 watts of 95 to 250 Volts AC, allows the IF4 to be capable of continuous operation anywhere in the world.

The Basic Reader Interface included with IF4 simplifies the control of RFID interrogators with text-like command/response protocol that is portable to many platforms, easy to learn, optimize and support .

Physical Description

The Intellitag IF4 Serial Reader, available in 865, 869, and 915 MHz bands, is a rugged radio frequency identification (RFID) reader appropriate for use in indoor industrial environments.

Physical Characteristics

Length: 19.1 cm (7.5")
Height: 6.6 cm (2.6")
Width: 13.5 cm (5.3")

Standard Features

Input/Output Circuits
13 pin DIN connector
Four input and four output circuits for monitoring and controlling external devices through the reader

Antenna Connections

4 connectors - reverse or standard SMA
Selectable by software; RF power attenuation software selected

Options

RFID Frequency Options
86x MHz Band
915 MHz Band

Communications Interface - RS232

Accessories

Power Supply
Input: 90-260VAC, 50-60Hz
Output: 9VDC, 2.6ADC
Country specific power cables.
FCC & ETSI Antennas and cables

Environment

Operating Temperature: -20°C to 55°C (-4°F to 131°F)
Storage Temperature: -40°C to 85°C (-40°F to 185°F)
Humidity (non-condensing): 10% to 95%
Shock: 10 G, 11ms, half sine pulse (operating)
Vibration: 1.0 GRMS. 10 to 500Hz, 3 axis (operating)

Regulatory Approvals And Standards

ANS INCITS 256:1999 (R2001) - Parts 2, 3.1 & 4.2
ANSI MH10.8.4
ISO/IEC 18000-4
ISO/IEC 18000-6b

Some approvals and features may vary by country and may change without notice. Please check with your local Intermec sales office for further information.

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