Elpas

Active RFID/RTLS Solutions

RF IP Reader

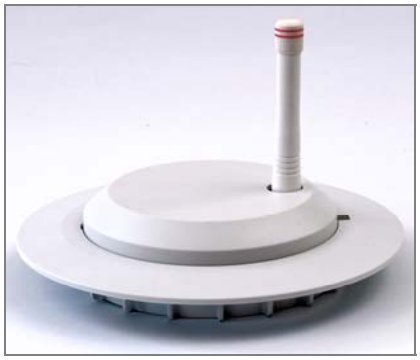
Description

The Elpas RF IP Reader is a supervised; 433MHz fixed indoor receiving device. The reader can detect and relay real-time 'Location' and 'State' data from Elpas Active RFID Asset, Personnel or Infant Protection Tags to RTLS host safety and security applications such as the Eiris Enterprise Software Platform.

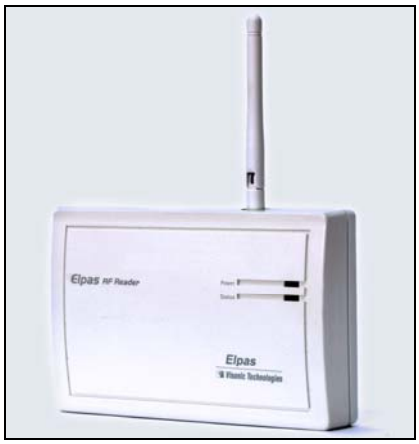
The RF IP Reader supports standard IT network communications and is easily integrated onto wired or wireless Ethernet/Wi-Fi networks for relaying data to and from the host application.

The RF IP Reader can be surface mounted onto solid ceilings, flush mounted into dropped (false) ceilings or hung onto solid and hollow walls. The reader supports large tag populations at read distances up to 20m/65ft (360° coverage area) in open office environments and is remotely configurable for customized applications. On-board I/O ports enable the monitoring of one general purpose analogue input and control of two open-collector digital switched outputs.

The RF IP Reader supports XML messaging technology for integration with external control and monitoring applications. The reader also supports data transmission with up to fifteen Elpas BUS devices (such as RF or IR Readers, IO Boxes, Elpas Display Panels and LF Exciters) using RS-485 Junction Boxes.



Elpas RF IP Reader- Ceiling Mount



Elpas RF IP Reader – Wall Mount

Product Features

Attractive, cost effective design
Real-time tag monitoring and tracking
Read range up to 20m/65ft (360° coverage)
Wired/Wireless Ethernet/Wi-Fi compatibility
Handles large tag populations
Fully supervised, including tamper protection
Remote Ethernet configuration & supervision
Low power consumption
Onboard digital I/O ports, RS-485 connectivity
XML messaging technology
CE, FCC, IC certified

Applications & Uses

Patient identification
Assisted living facilities
Infant protection
Nurse/Patient call
Wandering patient supervision
Entrance/Exit based alarming
Hands free access control
Mobile asset management & loss prevention
Personnel and visitor safety

Operational Specifications	
Operating Frequency	432.92 MHz (868 MHz upon special request)
Ethernet	10/100Base –TX (auto-sensing)
Ethernet Specification	Version 2.0 / IEEE 802.3, Ethernet II frame type, UDP protocol
RS-485 BUS	230Kbit/sec
Read-Range (Note 1)	Installation grid: 20m/65ft radius
RF Sensitivity	-102dbm
Tag Density	Up to 125 tag messages/second
Message Length	4-31 byte messages (encapsulated for messages > 4 bytes)
Buzzer Indicator	**Power-Up:** User configurable…….**Device Malfunction:** Beeps continuously
Green LED Indicator	Lights continuously when powered
Red LED Indicator	**Corrupted Firmware:** Lights continuously **Unregistered in EIRIS:** Toggles on/off every second **Tag Detection:** Flashes once per message
Tamper Switch	Generates service message
Encoding	Factory programmed ID
Input/Output	1 dry contact analogue input 2 open collector digital outputs (up to 100mA)
Power Requirements	16-28VDC, 80mA at 24Vdc
General Specifications	
Construction	White polycarbonate plastic
Dimensions (H x W x D)	**Ceiling:** 17 x 4 cm (6.6 x 1.6 inches) **Wall:** 10.5 x 16.0 x 3.5 cm (4.0 x 6.0 x 0.5 inches)
Weight	**Ceiling:** 200 grams / 7.0 ounces **Wall:** 180 grams / 6.3 ounces
Tamper Protection	Open 'State' spring-loaded switch button
Device Interfaces	**RF Antenna:** Female RP SMA connector **Ethernet:** Female RJ-45 (8P8C) connector **RS-485 Bus & Power:** Female RJ-11 (4P4C) or Four–position removable terminal block **Analogue Input:** Two–position fixed terminal block **Digital Outputs:** Three-Position fixed terminal block
Operating Environment	Temp: -10°C to 70°C (14°F to 159°F); Humidity: 20% to 80% non-condensing
Storage Temperature	-40° to 70°C (-40°to 159°F)
Configuration & Supervision	EIRIS 4.6.3 (or higher) software
Compliance Standards	**FCC:** FCC PART 15, Sub-part B, Class B **CE:** EN60950-1, CAN/CSA-CEI/ICE CISPR 22 **IC:** ICES-003
Warranty	1 year limited warranty

*Note 1: **Read distances may be affected by environmental conditions and site characteristics**. **All specifications are subject to change without notice.**

The following Elpas Tags are not compatible with the Elpas RF IP Ceiling Reader:

433MHz Alert Tag (5-ALB00001, 5-PLB00001) **Alert Tag (IR) – with Pull** (5-PWB00001) **433MHz Wrist Tag** (PWB00901, 5-PWB00901-1, 5-PWB00901-4)
433MHz Pediatric Tag (5-BTB00433-1, 5-BTB00433-2, 5-BTB00433-3, 5-BTB00433-8)

Ordering Information

Part Number	Description
5-RFB00433	RF Reader, IP, 433MHz, Ceiling
5-RFB00433-2	RF Reader, IP, 433MHz, Wall

Compatible Accessories

Part Number	Description
5-IOX00001	End-of-Line Terminator for Elpas & AXS Inputs (5 units)
5-JBA00485	RS-485 Junction Box, 4 RJ11 Ports
5-ERS02721	Network Drop Cable, 2.5 Meters/8.0 Feet
5-ERS02721-1	Network Drop Cable, 5.0 Meters/16.0 Feet
5-500100	Power-Over-Ethernet Splitter, 24VDC/0.5A
5-ERS02601	P60 Power Supply, 24VDC/2.5A
5-RDT09100	Mounting Bracket (5 units)
5-RDT09113	Reader Surface-Mount Plastic Ring (5 units)

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About Visonic Technologies

Visonic Technologies (VT) is a global leader in Active RFID/RTLS safety and security solutions for the changing healthcare industry. VT delivers out-of-the-box as well as custom-tailored risk mitigation tools that enhance patient and personnel safety; reduces asset shrinkage and labor costs; lessens negligence litigation and facilitates industry guideline compliance.