Elpas
Active RFID/RTLS Solutions

Outdoor RF IP Reader

Description

The Elpas Outdoor RF IP Reader is a supervised, indoor/outdoor 433MHz RTLS fixed receiver. The device is designed to forward real-time 'Location' and/or 'State' data detected from Elpas Active RFID Tags directly to Eiris Enterprise Software or to a third-party RTLS application using an IP XML protocol over standard wired or wireless Ethernet/Wi-Fi networks.

The reader delivers all the functionality of an Elpas Local Controller (ELC) and serves as a RS-485 BUS Master for relaying bi-directionally, data between the host application and up to 15 Elpas BUS devices (RF or IR Readers, Input/Output Modules, Elpas Display Panels or LF Exciters) using Elpas RS-485 Junction Boxes.

Housed in an IP-66 water-rated enclosure, the reader is suitable for deployment in rugged conditions (such as warehouses, garages or external yards) and can be wall ceiling or post-mounted. The reader handles large tag populations at read-distances up to 200M/650ft in open environments using its optional Yagi antenna and is remotely configurable for customized applications.

On-board I/Os also enable the monitoring of one supervised input and control of two open-collector digital switched outputs.

Elpas Outdoor RF IP Reader

Product Features
IP-66 water-rated enclosure
Real-time tag monitoring and tracking
Read range up to 200M/650 ft
Wired/Wireless Ethernet/Wi-Fi compatibility
Handles large tag populations
Remote Ethernet configuration and range tuning
Onboard digital I/O ports
RS-485 connectivity
XML messaging technology
CE, FCC, IC certified

Applications & Uses
Wireless duress alarms
Personnel and visitor safety
Infant protection
Nurse/Patient call
Wandering patient supervision
Entrance/Exit based alarming
Hands free access control
Asset management & loss prevention
Parking Access and Management

Visonic Technologies
Enterprise Protection Solutions

Visit: www.visonictech.com
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Elpas Outdoor RF IP Reader– Confidential Technical and Product Specifications

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	Yagi Unidirectional Antenna: Up to 200M/650Ft Omni-Directional Antenna: Up to 120M/400Ft radius
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**: Beeps once. **Device Malfunction:** Beeps continuously
Green LED Indicator	Lites continuously when powered
Red LED Indicator	**Corrupted Firmware:** Lights continously **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 analog input 2 open collector digital outputs (up to 100mA)
Input Supervision	4 Levels (Open, Closed, Line Short, Line Cut) using optional Elpas End-of-Line Terminator
Power Requirements	16-28Vdc, 80mA at 24Vdc
General Specifications	
Mounting	Ceiling/Wall/Pole mounted
Construction	Light gray polycarbonate plastic
Dimensions (H x W x D)	140 x 240 x 115 mm (5.5 x 9.4 x 4.5 inches)
Weight	Approximately 300 grams (10.5 ounces)
Housing	IP-66 water-rated
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	Temperature: -30°C to 70°C (-22°F to 159°F)….Humidity: 20% to 95% non-condensing
Storage Temperature	-40° to 70°C (-40°to 159°F)
Remote Configuration and Supervision	ELC Programmer Software (V2.0 or higher)….Eiris 4.7 (or higher) Enterprise 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**.   **Specifications are subject to change without notice.**

The following Elpas Tags are not compatible with the Elpas Outdoor RF IP 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-ELC00433-4	RF Reader, IP, 433MHz, ELC, Outdoor
5-CBL00201	Long-Range Yagi Directional Antenna
5-AN004303	Long-Range Omni-Directional Antenna + MBCN
5-CBL00201	Coax Cable 3.0M/10 Ft for Omni-Directional / Yagi Antennas

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, 2.5M/8Ft
5-ERS02721-1	Network Drop Cable, 5.0M/16Ft
5-ERS02721-2	Network Drop Cable, 10.0M/32Ft
5-500100	Power-Over-Ethernet Splitter, 24Vdc/0.5 Amp
5-ERS02800	P60 Power Supply, 24Vdc/2.5A

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About Visonic Technologies

Visonic Technologies (VT) is a global leader in active/passive RFID and RTLS safety & security solutions for the healthcare industry. VT delivers out-of-the-box plus 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.

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