Elpas

RTLS Location Based Security)))

Safety and Security from the ground up

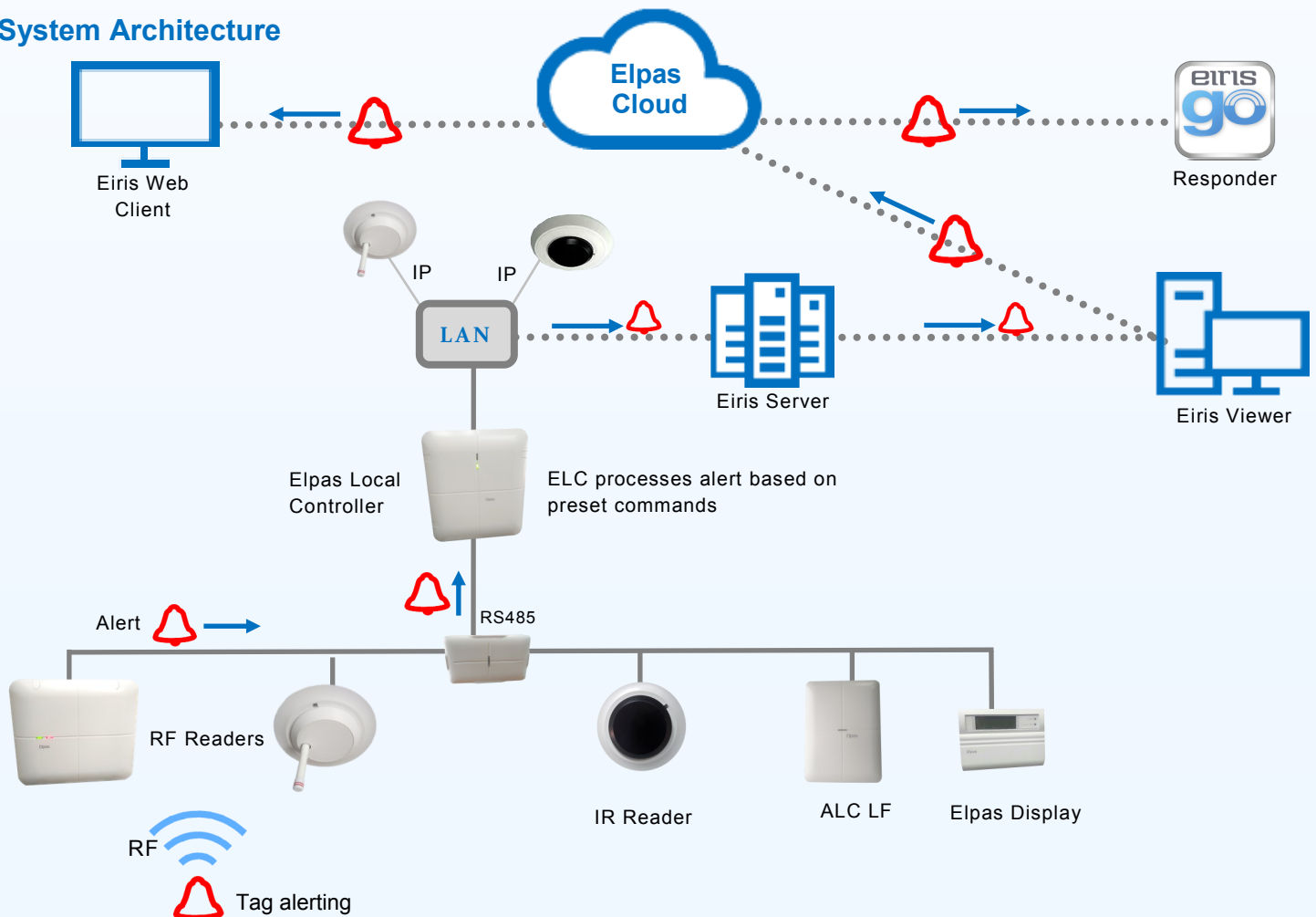**Day or Night**

RF Reader

Elpas RF Reader

The Elpas RF Reader is a supervised 433.92MHz fixed indoor RTLS receiver. The reader is designed to detect and relay real-time 'Location' and 'State' data from Elpas active RFID tags to Elpas safety & security software platforms or other facility management systems. The reader supports standard IT network communications and is easily integrated onto wired or wireless Ethernet/Wi-Fi networks (using an Elpas RF IP reader as an RS-485 Bus Master) for relaying data to and from the host application. Architecturally attractive, the RF reader is easily surface mounted onto solid ceilings, flush mounted into dropped (false) ceilings, or hung on 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 analog input and control of two open-collector digital switched outputs.

The Elpas RF reader also supports XML messaging technology (the Bus version requires connection to an Elpas RF-IP reader or ELC Controller) that integrates RTLS visibility data with management applications. The reader also supports data transmission with up to fifteen Elpas Bus devices, such as RF or IR readers, I/O Boxes, Elpas Display Panels and LF beacons (the Bus version connects to these devices using Elpas RS-485 Junction Boxes).

System Architecture

Eiris Web Client

Elpas Cloud

Responder

IP   IP

LAN

Eiris Server

Eiris Viewer

Elpas Local Controller

ELC processes alert based on preset commands

RS485

Alert

RF Readers   IR Reader   ALC LF   Elpas Display

RF

Tag alerting

Elpas
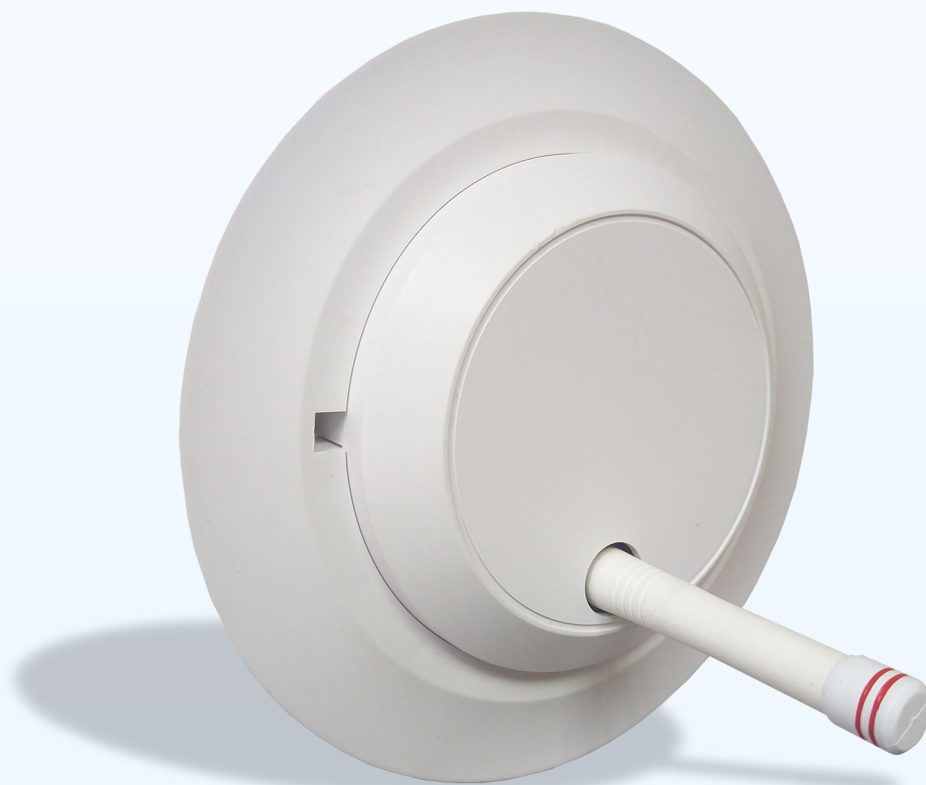RTLS Location Based Security

RF Reader

Highlights

- Real-time tag monitoring and tracking
- Arm9 Processor
- 100MBit Ethernet
- RS-485 Master
- 2 Open Collector Digital Outputs (rated 100m) - no need for EXB
- 1 Dry Contact Digital Input
- 12-28VDC (Declares lowers voltage at 16V)
- Current Consumption @24V-80mA
- Real Time Clock and Backup Battery
- Read range up to 20m/65ft radius (360° coverage)
- Wired/Wireless Ethernet/Wi-Fi compatibility
- Handles large tag populations
- Fully supervised, includes tamper protection
- Remote Ethernet configuration & supervision
- Low power consumption
- Onboard digital I/O ports, RS-485 connectivity
- XML messaging technology (via Elpas RF IP Reader)
- Attractive, cost effective design
- CE, FCC, IC compliant

Applications and Uses

- Access Control
- Assisted living or retirement communities
- Infant protection
- Wander Protection
- Nurse/patient call
- Asset management and loss prevention
- Intrusion Alarming
- Wireless and Wired Assisted Calls
- Lift Control

RF Ceiling

Elpas

Specifications

Operating Frequency	433.92MHz
Ethernet (IP)	10/100 Base—TX (auto-sensing)
RS-485 Bus	230Kbit/sec
Read Range (Note 1)	Installation grid: 20m/65ft | Installation radius: 12m/39.4ft
Tag Density	Up to 125 tags messages per second
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: flasher once per message
Input / Output	Input: 1 supervised dry contact | Output: 2 open collector outputs (up to 100mA)
Power Requirements	12-28 VDC 80mA @ 24VDC = 2W
Mounting	Surface-mounted on solid walls and ceilings, flush-mounted into dropped (false) ceilings
Construction	ABS Plastic
Dimensions (H x W x D)	Ceiling 17x4cm / 6.6x1.6in | Wall: 230x199x47cm / 9.06x7.83x1.8in
Weight	Ceiling: 200g / 7oz | Wall Bus: 513.68g / 18.1oz | Wall IP: 523.1 / 18.4oz
Tamper Protection	Open "State" spring loaded switch button
Device Interfaces	RS-485 Bus & Power: female RJ-11 (4PC4) or four-position removable terminal block | Analog Input: two-position fixed terminal block | Digital Outputs: three-position fixed terminal block
Operating Environment	Temperature: -10°C to 70°C / 14°F to 159°F | Humidity: 20% to 80% non-condensing
Storage Temperature	-40°C to 70°C / -40°F to 159°F
Remote Management	ELC Programmer V2.0.0.5 (or higher) | Software: Eiris V4.7.1 (or higher)
Compliance and Standards	FCC, CE, IC compliant
Warranty	1-year limited warranty

*Note 1: Read distances may be affected by environmental conditions and site characteristics.

*All specifications are subject to changes without notice

Accessories

5-JBA10485	RS-485 Junction Box, 4 RJ11 Ports
5-IOX0001	End-of-Line Terminator for Elpas & AXS Inputs (5 units)
5-ALC90001	LF Mounting Bracket (set of 5)
**5-ERS02800	P60 Power Supply, 24VDC/2.5A
*5-ERS02605	Power Supply, 24VDC, 6 Amp, Linear
*5-ERS02603	Power Supply, 24VDC, 10 Amp, Linear
For a complete list of compatible accessories, please contact your local Elpas Sales Representative.	

Cabling Options

Part Number	Type
**5-ERS02721-5	Network Drop Cable, 5 Meters
*5-ERS01905-15P	Network Drop Cable, 15 Feet, Plenum Rated
*5-ERS01905-30P	Network Drop Cable, 30 Feet, Plenum Rated

*Available only in the Americas   ** Not available in the Americas

Ordering Information

Part Number	Type
5-RFB00433-1	RF Reader, Bus, 433.92MHz, ceiling
5-RFB10433-5	RF Reader, Bus, 433.92, wall
5-RFB00433	RF Reader, IP, 433.92, ceiling
5-RFB10433-2	RD Reader, IP, 433.92MHz, wall

Product offerings and specifications are subject to change without notice   *Not all products include all features*

Related Products

Local Controller

Junction Box

Display Panel

IR Reader

Elpas

Elpas is global provider of scalable Passive & Active RFID/RTLS Safety, Security and Visibility Solutions for Healthcare, Manufacturing, Logistics and Building Automation. Elpas delivers a complete line of real-time location based security solutions that help enhance individual safety, reduce property shrinkage, streamline operational workflows, protect the vulnerable, lessen negligence litigation and facilitate industry guideline compliance. Elpas currently serves customers throughout the Americas, the U.K., EMEA and Asia-Pacific.