

LF Exciter

Description

The Elpas Low Frequency (LF) Exciter from Visonic Technologies is a supervised, short-range, UHF emitter that adds pin-point detection functionality to any Elpas safety, security or monitoring installation.

The LF Exciter is engineered to emit spherical, low-power electromagnetic fields (125 KHz) of up to 3 m (10 ft) in radius. These harmless LF fields are user-adjustable, so that they can be tuned to precisely cover most indoor doorways or entrance/exit areas. So, whenever an individual or asset bearing an Elpas active RFID tag enters the electromagnetic field generated by the exciter, the mobile tag is prompted to transmit its pre-programmed data messages (including the exciter's Neuron ID). The messages are instantly detected by the Elpas RF reader infrastructure and are locally processed and/or relayed over the LonTalk network to the EIRIS server machine in support of the configured Elpas application.

The LF Exciter also includes an onboard UHF (433.92 MHz) transmitter, which continuously broadcasts real-time device supervision alert messages for keeping repair personnel informed of possible maintenance issues related to the device.

Architecturally attractive and unobtrusive, the Elpas LF Exciter is easily surface-mounted on solid walls and ceilings or flush-mounted into dropped (false) ceilings. The exciter is deployable as a standalone device, designed to cover normal interior single or double doorways or in a flexible master-slave configuration suitable for coverage in large, open indoor spaces.



Elpas LF Exciter

Product Features

- Unobtrusive, streamlined tamper-resistant design
- Quick-connect power and data interfaces
- Adjustable magnetic field of up to 3m (10ft) radius
- Master-slave configuration for large area coverage
- Efficient onboard circuitry; reduces power consumption
- RF range up to 20m (65.5ft), 360° coverage area
- Unique location indication using internal ID code
- Onboard supervisory message transmitter

Applications and Uses

- Patient identification
- Assisted living facilities
- Infant protection (Elpas BabyMatch™)
- Wandering patient supervision
- Entrance- and exit-based alarming
- Asset management and loss prevention
- Artwork and museums
- Guards and security personnel safety

Elpas LF Exciter – Confidential Technical and Product Specifications

LF Specifications	
Technology	Low frequency electromagnetic field (125 KHz)
Effective Range	Up to 3 m (10 ft) radius (spherical field)
Transmission Rate	Continuous bursts of LF transmissions (each about 12 ms in duration)
Output and Format	3-byte messages (preamble, exciter ID and CRC)
Output Power	Less than 60 dbµv at 30 m (100 ft); adjustable, using the onboard trim control potentiometer
Output Bit Rate	2,000 bit per second
RF Specifications	
Technology	UHF RF (433.92 MHz)
Effective Range	20 m (65.5 ft) radius (360° coverage area)
Transmission Rate	1 RF transmission (about 2 ms in duration), 10 seconds apart
Electrical Specifications	
Status Indicators	Power On: Red LED blinks 5 times upon power on, then lights constantly Invalid ID Code: Red LED blinks continuously; buzzer beeps repetitively
ID Address	Set by an onboard, 8-position DIP switch
Power Requirements	24 V DC nominal ± 30%; 200 mA
Power Consumption	Approximately 2W; power consumption is a function of address (according to the DIP switch settings, where FF is the maximum and 00 is the minimum)
General Specifications	
Construction	Polycarbonate plastic
Dimensions (H x W x D)	17 x 4 cm (6.6 x 1.6 inches)
Weight	Approximately 200 grams (7.054 ounces)
Device Interfaces	RJ-11 (6P6C) power source connector RJ-45 (8P8C) master-slave connector
Operating Environment	Temperature: -10°C to 70°C (14°F to 159°F) Humidity: 20% to 80%, non-condensing
Remote Management	EIRIS 4.5 (or higher) enterprise software
Compliance with Standards	FCC: FCC ID: 04X5-RLE00125, FCC PART 15, Sub-part B, Class B, Sub-part C; CE: EN300220-1, EN300220-2, EN300330-1, EN300330-2, EN301489-1, EN301489-3, EN60601-1-2, CISPR 11, EN60950-1, IEC60601-1, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-6
Warranty	1-year limited warranty (excluding battery)

Ordering Information

Part Number	Description
5-RLE00125	Exciter, LF, Standalone
5-RLE00125-W	Exciter, LF, Standalone, White
5-RLE00125-1	Exciter, LF, Master
5-RLE00125-2	Exciter, LF, Slave, with Master-Slave Cable
5-RLE00125-1W	Exciter, LF, Master, White
5-RLE00125-2W	Exciter, LF, Slave, with Master-Slave Cable, White

Accessories

Part Number	Description
5-RDT09113	Surface Mount Plastic Ring (5 Units)
5-RDT09100	Mounting Bracket (5 Units)
5-ERS02721	Reader Cable 2.5 m (8.25 ft)
5-ERS02721-1	Reader Cable 5.0 m (16.25 ft)
5-LFM00125	LF Field Meter

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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.