

Elpas Wireless Magnetic Contact

P/N: 5-MAG00433

Install Guide

Description

The Elpas Magnetic Contact is a battery operated; wireless universal door contact designed for use in Elpas Safety, Security and Visibility solutions. The device can be mounted anywhere to secure door and window openings. The transmitter emits EMI safe 433MHz RF messages that enables the reporting a monitoring of 'State' changes from one dry contact input to be sent via the Elpas Ethernet RTLS infrastructure to a host Elpas RTLS application or to other management monitoring solutions.

The Magnetic Contact provides a single zone of protection, and installs easily on doors or windows with the included mounting hardware or double-sided. The contact has three unique input loops (zones) (The first loop (primary loop) is supervised and typically used for high-priority alarm reporting such as commercial fire or burglary. The second loop is the built-in, normally closed reed switch used in conjunction with magnet; the third loop is another normally closed household burglary loop.



Product Specifications

Signaling Technologies	RF (433MHz)
Transmission Rate	Every 120 seconds
Alarm Inputs	1 magnetic reed switch, 1 auxiliary input
Supervised Events	Low Battery, Tamper
Power Source	3.6V/1.2Ah Lithium Battery (Type LiSOC12)
Average Battery Life	3 years
LED Indicator	TBD
Tag ID	Unique, factory-programmed ID
Construction	White Nylon Plastic
Dimensions (H x W x D)	Transmitter: 81 x 30 x 23 mm (3-3/16 x 1-3/16 x 15/16 in.) Magnet: 63x13x13 mm (2-1/2 x 1/2 x 1/2 in.)
Weight	Transmitter: 34 grams (1.2 ounces) Magnet: 13 grams (0.45 ounces)
Operating Environment	Temp: -20°C to 70°C (-4°F to 159°F) Humidity: 90% non-condensing
Remote Management	Eiris 4.8 (or higher) Elpas Configurator 4.8 (or higher) ELC Programmer V2.0
Standards	IC, FCC & CE compliant
Warranty	1 year limited (excluding battery)

Product offerings and specifications are subject to change without notice.

Aux Inputs Interface

The Magnetic Contact contains aux input terminals for connecting two analog alert monitoring inputs.

Tamper Switch

The Magnetic Contact contains a spring loaded tamper switch that when pressed, generates a 'State' message that is useful for registering the monitoring point in the host application

Once registered, the tamper switch can also be used as an input trigger for a device supervision tamper alert indicating non-authorized attempts to remove the device's cover.

Power

The Magnetic Contact derives its power from one CR2430 type lithium battery (factory supplied) or alternatively from a single 1/2AA battery.

IMPORTANT: The Wireless Input Module as well as all the input devices to be monitored should be powered down when wiring in order to prevent accidental shorts/spikes to cause damage to any of the devices.

Supported Event Transmissions

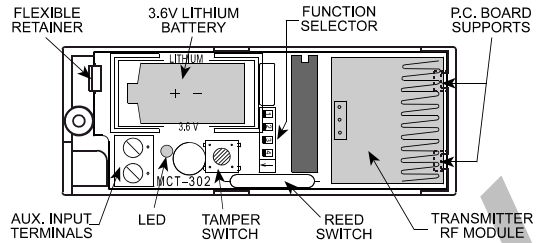
The Magnetic Contact can transmit state changes from up to two dry contact inputs (as a button press event message) to the host RTLS server.

- Input 1 – Button 1 Event
- Input 2 – Button 2 Event

The Magnetic Contact can also transmit a state change from the tamper switch (as a motion event message) indicating a non-authorized attempt to remove the module's cover.

- Tamper Switch – Motion Event

Note: Whenever a state change is detected the input module automatically transmits 4 RF event messages 400ms apart with each transmission about 2ms in duration).



Status Indicator

The Magnetic Contact has a Red Status LED that flashes once/second signaling either a low voltage condition or that the device is transmitting.

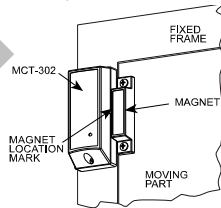
Lithium Battery Installation (supplied with device)

Before inserting the CR2430 type lithium battery into the module's battery holder, confirm that the holes of the battery Isolator are aligned with the contact pins. Then ensure that the positive (+) side of the battery faces the PCB.

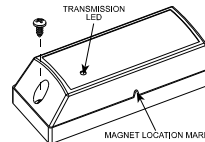
IMPORTANT: Inserting the 3.6V/1.2Ah battery improperly into the battery clip may cause damage to the Magnetic Contact.

Installation Mounting

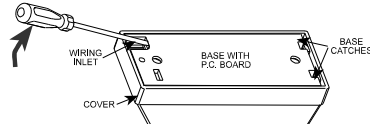
Attach the Magnetic Contact to the fixed frame and the magnet to the movable part (door or window), as shown below. Make sure that the magnet is located not more than 6mm (0.25 in) from the transmitter's marked side .



Step 1: Remove the case closure screw

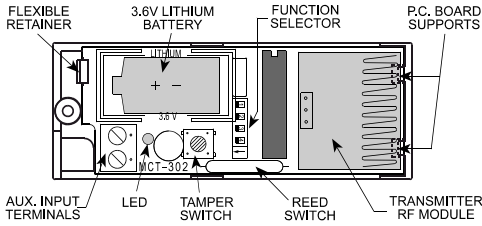


Step 2: Remove the unit's cover

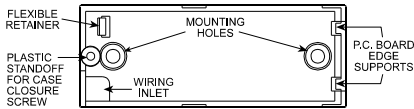


Step 3: Flex out the circuit board retainer and detach the circuit board from the base.

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Step 4: Hold the base against the mounting surface and mark the drilling points through the mounting holes



Step 5: Drill the holes and fix the base to the wall using the 2 screws with countersunk heads supplied in the package.

Step 6: Mount the magnet near the marked side of reed switch.

Step 7: Insert the edge of the circuit board with the RF module into the edge supports and press the other edge against the flexible retainer until it snaps home with a click

Preparation for Use

The Magnetic Contact is equipped with a 4-position DIP switch. Each switch lever enables selecting 1 of 2 options.

B. Setting the Switches

Set the function switches as desired prior to applying power.

Use a ball point pen or another pointed object to shift the switch levers. The ON position is indicated by the arrow on the switch body.



Table 1. Getting acquainted with the function selector

Switch	Function		Selector	Selected Option	Default
SW1	Reed switch input	Determines whether the reed switch input will be active or inactive Note: With SW-1 set to OFF, the auxiliary input will not initiate periodic supervision transmissions.	ON OFF	Reed switch input is enabled Reed switch input is disabled	ON
SW2	Aux. input type selector	Determines whether the auxiliary input will behave as a 47k Ω end-of-line (E.O.L.) input or as a normally closed (N.C.) input.	ON OFF	Aux. input is E.O.L. (47 k Ω) Aux. input is N.C.	OFF
SW3	Restore reports	Determines whether the transmitter will report a restore event when an input restores from an alarm condition. Selecting the ON position enables you to find out whether the door or window under surveillance are open or closed.	ON OFF	Restore events reported Restore events not reported	ON
SW4	Transmit Mode	In non-supervised systems, it is sometimes required to report an alarm repeatedly at short intervals, until the disturbed input reverts to its normal (undisturbed) state. SW-4 is used to select between repetitive and one-shot transmission. Note: Transmissions initiated by "tamper" events will be repeated once every 3 minutes, regardless of SW-4 setting. When done, install the battery as directed in Para. 4.2.	ON OFF	Reports alarms every 3 min. Reports alarms only once	OFF

EU Declaration of Conformity

This equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC

FCC & IC Compliance Standards

This device (FCC ID#: O4X5-MAG00433 and IC ID#: 1467G-5MAG00433) complies with FCC Rules Part 15 and with Industry Canada license-exempt RSS standard(s). Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

For Industry Canada: Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates; uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Elpas Solutions Ltd.) could void the user's authority to operate the equipment.

This equipment complies with FCC and IC RF radiation exposure limits set forth for an uncontrolled environment.

Company Contact

Elpas, Inc.
Westford, Massachusetts (USA)
Tel: 1-800-223-0020

Product Warranty

Elpas Solutions, Ltd. (the Company), and its affiliates, warrants its products (hereinafter referred to as "the Product") to be free of defects in materials and workmanship under normal operating conditions and use for a period of one year from the date of shipment by Elpas. The Company's obligations shall be limited within the warranty period, at its option, to repair or to replace the defective Product or any defective component or part thereof. To exercise this warranty, the product must be returned to the manufacturer freight prepaid and insured.

This warranty does not apply to repairs or replacement caused by improper installation, Product misuse, failure to follow installation or operating instructions, alteration, abuse, accident, tampering, repair by anyone other than Elpas, external causes, and failure to perform required preventive maintenance. This warranty also does not apply to any products, accessories, or attachments used in conjunction with the Product, including batteries, which shall be covered solely by their own warranties, if any. Elpas shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, resulting from a malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Product.

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Elpas shall have no liability for any death, personal injury, property damage, or other loss whether direct, indirect, incidental, consequential, or otherwise, based on a claim that the Product failed to function. However, if Elpas is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, the company's maximum liability shall be limited to the purchase price of the Product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive liability of Elpas.

Elpas shall not, under any circumstances whatsoever, be liable for any inaccuracy, error of judgment, default, or negligence of Elpas, its employees, officers, agents, or any other party, or of the purchaser or user, arising from any assistance or communication of any kind regarding the configuration, design, installation, or creation of security system involving the Product, that being the responsibility of the purchaser or user. If Elpas is unable to make such repair or replacement, the company's entire liability shall be limited to the cost of a reasonable substitute product. Elpas shall not be responsible for any dismantling, installation, reinstallation, purchasing, shipping, insurance, or any similar charges.

Elpas shall have no liability for any damages, including without limitation, any direct, indirect, incidental, special, or consequential damages, expenses, costs, profits, lost savings or earnings, or other damages arising out of the use of the Product or the removal, installation, reinstallation, repair or replacement of the Product or any related events. In the event that there is any liability against Elpas, such liability shall be limited to the purchase price of the Product which amount shall be fixed as liquidated damages.

The purchaser and user understand that this Product may be compromised or circumvented by intentional acts; that the Product will not in all cases prevent death, personal injury, property damage, or other loss resulting from burglary, robbery, fire or other causes; and that the Product will not in all cases provide adequate warning or protection. The purchaser and user also understand that a properly installed and maintained alarm may reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such events will not occur or that there will be no death, personal injury, property damage, or other loss as a result of such events.

By purchasing the Product, the purchaser and user shall defend, indemnify and hold Elpas, its officers, directors, affiliates, subsidiaries, agents, servants, employees, and authorized representatives harmless from and against any and all claims, suits, costs, damages, and judgments incurred, claimed, or sustained whether for death, personal injury, property damage, or otherwise, because of or in any way related to the configuration, design, installation, or creation of a security system involving the Product, and the use, sale, distribution, and installation of the Product, including payment of any and all attorney's fees, costs, and expenses incurred as a result of any such events.

The purchaser or user should follow the Product installation and operation instructions and test the Product and the entire system at least once each week. For various reasons, including but not limited to changes in environmental conditions, electric, electronic, or electromagnetic disruptions, and tampering, the Product may not perform as expected. The purchaser and user are advised to take all necessary precautions for the protection and safety of persons and property.

This statement provides certain legal rights. Other rights may vary by state or country. Under certain circumstances, some states or countries may not allow exclusion or limitation of incidental or consequential damages or implied warranties, so the above exclusions may not apply under those circumstances and in those states or countries.

Elpas reserves the right to modify this statement at any time, in its sole discretion without notice to any purchaser or user. However, this statement shall not be modified or varied except by Elpas in writing, and Elpas does not authorize any single individual to act on its behalf to modify or vary this statement. Any questions about this statement should be directed to Elpas.



W.E.E. Product Recycling Declaration

For information regarding the recycling of this product you must contact the company from which you originally purchased it. If you are discarding this product and not returning it for repair then you must ensure that it is returned as identified by your supplier. This product is not to be thrown away with everyday waste - Directive 2002/96/EC Waste Electrical and Electronic Equipment.