



infsoft Locator Node 1400

infsoft Locator Nodes 1400 can receive Wi-Fi and Bluetooth Low Energy (BLE) signals from mobile transmitters. This enables positioning of Wi-Fi tags and beacons which can be attached to objects or carried by people, as well as the localization of Bluetooth or Wi-Fi capable mobile devices. In addition, a back channel can be used for bidirectional information exchange between infsoft Locator Nodes 1400 and Bluetooth transmitters such as the infsoft E-Ink Display Beacons.

The integration into the infsoft LocAware platform® enables wide range of application scenarios. These include tracking solutions, analysis functionalities and process automation.

Network Connection for infsoft Locator Node 1400

Option 1) Connection via Ethernet with PoE (recommended by us)

The network connection as well as the power supply of the Locator Node is done via Ethernet cabling. The customer requires a PoE switch. Alternatively, it is also possible to use a PoE injector.

Option 2) Connection via Ethernet and power supply

If no PoE is available, the network connection can be realized via Ethernet. Power supply via regular power supply connector.

Option 3) Connection via Wi-Fi and power plug

The connection via Wi-Fi in connection with a power supply connector is also possible.

In Case of Wi-Fi Connection:

For the connection of the Locator Nodes via Wi-Fi (2.4GHz), we need in advance:

- SSID
- Password
- encryption type

Frontpanel Layout:



Features:

Dimensions:

- Ø 150mm, height: 36mm

Weight:

- 180g

Connections:

- power supply: 802.3af/at PoE or 5V 1A DC Adapter
- Wi-Fi 802.11 b/g/n, 2.4GHz
- 10/100M RJ45 network port
- two USB ports, one TF card slot

Sensors:

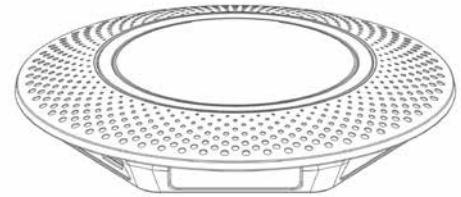
- Wi-Fi, Bluetooth Low Energy (BLE) 4 / 5

Mounting:

- Option A: by means of drill holes
- Option B: by means of magnetic mount

Price:

- 130 €



Option A: Mounting by means of drill hole

The Locator Node has holes in the rear panel for two screws.

Drill spacing: 82mm. Diameter of drill hole: 4mm

A drilling template is included with the component.

Option B: Mounting by means of a magnetic mount

The Locator Node is mounted using the available mounting unit (see infsoft Locator Node 1400 mounting unit).

infsoft Locator Node 1400 Mounting Unit

Dimensions:

- 100mm x 82mm x 10mm

Weight:

- 52g

Material:

- ABS plastic
- Neodymium disc magnet

Magnet:

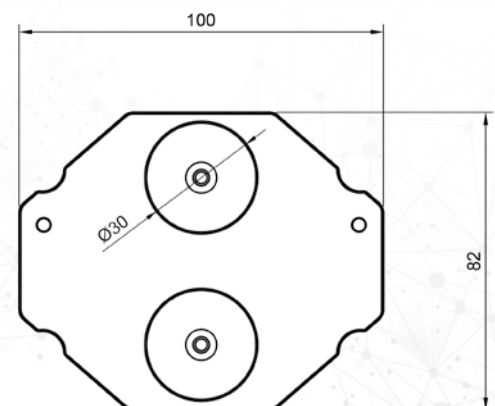
- 2 pcs Ø 30.0 mm x 4.0 mm
- Magnetization: N35
- Holding force: approx. 11kg
- Max. operating temperature: 80°C

Mounting:

- by means of magnet

Price:

- 18 €



Installation

The mounting unit is attached to a metallic surface at the specified installation point by means of a magnet. The Locator Node is inserted into the mounting unit and held by two screws.

Risk Assessment

infsoft Locator Nodes are attached to metallic surfaces using mounting units with magnets. For installations on ceilings, ladders and steps are used (see [Use of Work Equipment](#)). This involves the risks associated with the use of ladders and steps and the resulting obligation to provide instruction.

The maximum total weight of the hardware installed in the overhead area (infsoft Locator Node 1400 at 180g and infsoft Locator Node 1400 mount at 52g) is 232g.

During installation, a fall cannot be completely excluded. Therefore, a working area of 9sqm must be provided in which no persons other than the assembler are present (see [Securing the Working Area](#)).

After installation is complete, the hardware is not expected to separate if the surface is dry and free of dust and solvents. Further securing is not necessary.

Warnings:



Crushing

Magnets have a strong attractive force. If handled carelessly, fingers or skin can be pinched between two magnets. This can lead to bruising and hematoma in the affected areas. Protective gloves are recommended when handling larger magnets.



Cardiac pacemakers

Magnets can affect the function of pacemakers and implanted defibrillators. A pacemaker can be switched to test mode and cause discomfort. Wearers of such devices should keep a sufficient distance from magnets. Wearers of such devices should be warned against approaching magnets.



Heavy objects

Excessive or jarring loads, fatigue, and material defects can cause a magnet to detach from its adhesive base. Falling objects can cause injuries. The specified holding force is only achieved under ideal conditions. A high safety factor must be taken into account.



Metal splinters

Neodymium magnets are brittle. If two magnets collide, they can shatter. The collision of magnets must be avoided.

Caution:



Magnetic field

Magnets generate a far-reaching, strong magnetic field. Among other things, they can damage televisions and laptops, computer hard drives, credit cards and EC cards, data carriers, mechanical watches, hearing aids and loudspeakers.

Recommended safety distances of neodymium magnets:

Item	Magnetic field harmful from	S-45-30-N Adgesion 69 kg	S-20-10-N Adhesion 11 kg	S-15-08-N Adhesion 6,2 kg	S-10-03-N Adhesion 1,8 kg	S-06-02-N Adhesion 740 g
high-quality magnetic card (credit card, EC card, bank card)	40 mT (=400 G)	46 mm	19 mm	15 mm	9 mm	6 mm
cheap magnetic card (parking garage, fair entrance)	3 mT (=30 G)	134 mm	55 mm	42 mm	24 mm	15 mm
Cardiac pacemaker new	1 mT (=10 G)	201 mm	82 mm	62 mm	35 mm	22 mm
Cardiac pacemaker old	0,5 mT (=5 G)	257 mm	104 mm	80 mm	43 mm	28 mm
Mechanical watch, anti-magnetic according to ISO 764	6 mT (=60 G)	103 mm	42 mm	32 mm	18 mm	12 mm
Mechanical watch, not anti-magnetic	0,05 mT (= 0,5 G)	571 mm	230 mm	176 mm	98 mm	61 mm
Hearing aid	20 mT (= 200 G)	63 mm	26 mm	20 mm	12 mm	7 mm
Hard disk	unclear					



Nickel allergy

Most magnets contain nickel, even those without nickel plating. Some people have allergic reactions to contact with nickel. Nickel allergies can develop with continuous contact with objects that contain nickel. Permanent skin contact with magnets should be avoided. Handling magnets without protective equipment should be avoided if a nickel allergy is already present.

Notes:



Effect on humans

Magnetic fields from permanent magnets have no measurable positive or negative effect on humans according to current knowledge. A health hazard due to the magnetic field of a permanent magnet is unlikely but cannot be completely ruled out. For safety reasons, permanent contact with the magnets should be avoided. Large magnets should be kept at least one meter away from the body.



Temperature resistance

Neodymium magnets have a maximum operating temperature of 80 to 200 °C. Most neodymium magnets permanently lose some of their adhesive force at temperatures above 80 °C. Magnets must not be used in places where they are exposed to high heat. When using adhesives, these must not be cured by means of hot air.

Summary

Risk: Injury to persons during assembly due to falling hardware components in the work area when installing components on the ceiling.

Measure: Securing of the work area to prevent access by persons at risk.

Use of personal protective equipment by assembly personnel.

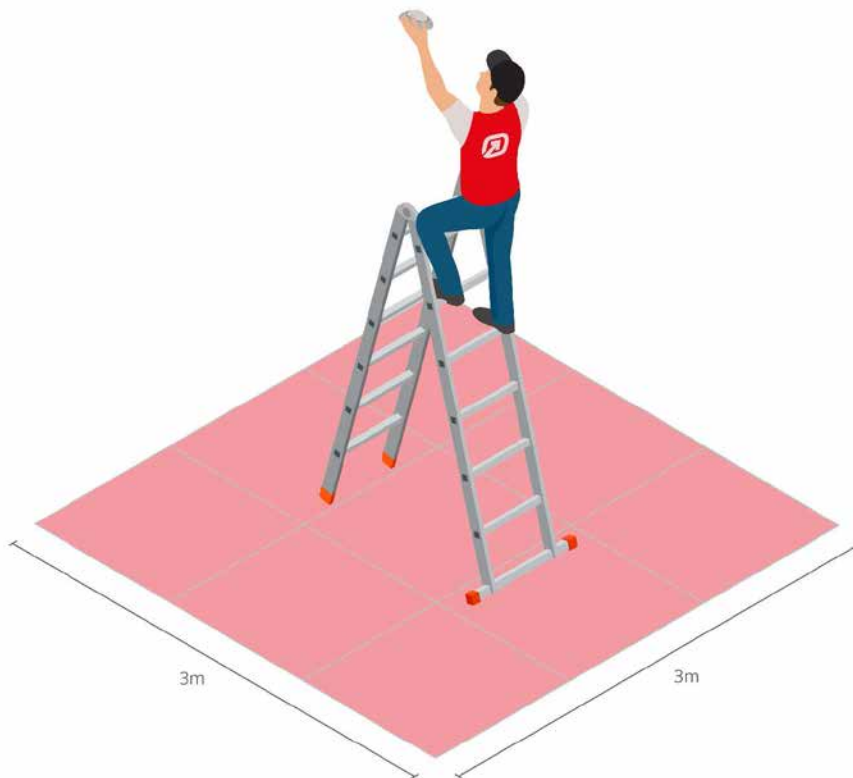
Use of Work Equipment

The installation is carried out typically on the ceiling at a maximum height of up to 6m ladders/steps. The employees used need to be instructed in the use of ladders and steps. Work equipment need to be appropriate to the type and scope of the activity and need to be subjected to regular visual and functional inspections.

Securing the Working Area

The installation of the hardware shall be carried out by teams of two people.

A security guard monitors the work area in which the installation of the hardware is carried out by the installer. The work area covers an area of approx. 9sqm per installation point.



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