



# IDEN TEC SOLUTIONS

Model IDS1002

iPOINT X (ATEX)

## HARDWARE USER MANUAL

Visibility Delivered.



## Proprietary Notice

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## Radio Frequency Compliance Statement

IDENITEC SOLUTIONS is the responsible party for the compliance of the following devices:

MODEL:		IDS1002 iPOINT X
Region/Country	Organization	Marking
EUROPE:	EU	CE
USA:	FCC	FCC ID OO4-IDS1002
CANADA:	IC	3538A-IDS1002

The user(s) of these products are cautioned to only use accessories and peripherals approved, in advance, by IDENITEC SOLUTIONS. The use of accessories and peripherals, other than those approved by IDENITEC SOLUTIONS, or unauthorized changes to approved products, may void the compliance of these products and result in the loss of the user(s) authority to operate the equipment.

## European Declaration of Conformity according to RED Directive

IDENITEC SOLUTIONS AG hereby declares that the device iPOINT X is in conformity with the essential requirements of Directive 2014/53/EU. The declaration of conformity can be found at: [www.identecsolutions.com](http://www.identecsolutions.com)

## Radio Frequency (RF) Exposure Compliance of Radio Communication Apparatus

To satisfy FCC and ISED RF Exposure requirements for mobile devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Conformité à l'exposition aux champs RF des équipements radio

Pour satisfaire aux exigences FCC et ISED concernant l'exposition aux champs RF pour les appareils mobile, une distance de séparation de 20 cm ou plus doit être maintenu entre l'antenne de ce dispositif et les personnes pendant le fonctionnement. Pour assurer la conformité, il est déconseillé d'utiliser cet équipement à une distance inférieure. Cet émetteur ne doit pas être co-situé ou fonctionner conjointement avec une autre antenne ou un autre émetteur.

## Canada Certification

### Licence-Exempt Radio Apparatus (ISED)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- 1.This device may not cause interference.
- 2.This device must accept any interference, including interference that may cause undesired operation of the device.

### Appareils radio exempts de licence (ISDE)



L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
- 2.L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## ATEX Certification

Equipment or protected system intended for use in potentially explosive atmosphere directive 2014/53/EU. Compliance with the essential health and safety Requirements has been assured by compliance with the following standards:


EN 60079-0, EN 60079-11

EPS 19 ATEX 1 019 X	iPOINT X	
	II 2G Ex ib IIC T4 Gb -40°C ≤ Ta ≤ +70°C	Gas
	I M2 Ex ib I Mb -40°C ≤ Ta ≤ +70°C	Mining

## IECEX Certification

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0:2017, IEC 60079-11:2011

IECEX EPS 19.0010X	iPOINT X		
	Type of Protection	Ex i	
	Marking	Ex ib IIC T4 Gb	Gas
		Ex ib I Mb	Mining

## Special conditions for safe use – ATEX and IECEX



**WARNING** – Maintenance under voltage is not permitted.



**WARNING** – **Electrostatic Hazard:** Clean only with a damp cloth.



**WARNING - Electrostatic Hazard:** Do not install in locations with increased electrostatic charge such as close to ventilations systems or electric drives.



**WARNING** - This product should be installed by personnel trained in installation of equipment in Hazardous Locations and meet the representative country's National Electrical Code.



**WARNING** - Not to be connected to equipment that uses or generates more than 250V with respect to earth ground



**WARNING** - This product contains components that are sensitive to electrostatic discharges. Please observe the special instructions for their protection. Incorrect handling can damage the unit and cause the invalidation of the warranty.

### Minimum safety precautions against electrostatic discharge:

- Establish earth contact before you touch the unit. (For example, touch the earthing screw on the unit.) Best practice is to use an antistatic ribbon and earth yourself permanently for the time you handle the unit.
- Avoid unnecessary contact with the unit connectors and assemblies inside the unit.
- Only open the unit if the operational settings (as described in the manual) expressly requires it.
- Use antistatic tools for the setting of the unit. (Warning: Do not touch life-threatening voltages with these tools).
- Do not store unit and components without protective packaging.
- Remove unit and components from the packaging only prior to installation.



**These notes are not sufficient to guarantee complete protection from electrostatic discharges! We recommend the use of suitable protective equipment.**

IDENTEC SOLUTIONS does not accept the return of products where the regulations concerning the ESD precautions and protective packaging materials were not followed.

## Safety Instructions

The equipment can be installed in restricted areas.

The system described in this manual is for exclusive operation of trained employees. Only qualified personnel that have knowledge of the potential dangers involved should perform the installation, settings, maintenance and repair of the units used.

## Operational Safety

The correct and safe use of these systems assumes that operating and service personnel follow the safety measures described in the manual alongside the generally acceptable safety procedures.

If there is a possibility that safe operations cannot be guaranteed, the system must be switched off, secured against accidental use and the service unit responsible immediately informed.

## Safety Documents

The iPOINT X was designed, tested and supplied in perfect condition according to document EN 62368-1:2014 and EN60950-22 Safety Requirements.

## Condensate / Change of Temperature

To avoid condensation in the system, the unit must be allowed to slowly adjust itself to warmer temperatures after removal from cold and cool environments.

## Do not open the Main housing

The Connection Chamber can be opened for required cabling needs, but there is no need to open the main housing (crews from bottom side) in order to set the iPOINT X unit. The unit does not have any internal setting elements or displays.

## Connections / Power Supply

Use shielded cables for the RS422 / RS 485 cables. This is the only way to achieve the prescribed EMC.

During maintenance damage could occur if printed circuit boards or cables are connected or disconnected whilst the power supply is still on. Therefore, only work on the connection and the components when they are not live.

## Spare Parts

We recommend that only personnel, original products, spare and replacement parts authorized by IDENTEC SOLUTIONS be used for installation, service and repair. IDENTEC SOLUTIONS does not accept any responsibility for materials used, work carried out or possible consequences from unauthorized third party vendors.

## Glossary

- EMC Electromagnetic Compatibility
- PoE Power Over Ethernet



## Contents

1. Preface .....	7
2. Introduction .....	8
2.1 iPOINT X and System Description .....	8
2.1.1 UHF Interface .....	9
2.1.2 LF Interface .....	9
2.1.1 LF Limitations for ATEX .....	10
2.1.2 NFC Interface .....	11
2.2 System Components – Tags .....	12
2.3 Ports Overview & Topologies .....	13
2.3.1 RS422 MASTER Connectors & Pinout .....	15
2.3.2 RS485 MASTER Connectors & Pinout .....	15
2.3.3 RS422 HOST Connectors & Pinout .....	15
2.3.4 RS485 HOST Connectors & Pinout .....	15
2.3.5 Connector coding .....	16
2.4 Cabling Hints .....	16
2.5 Lid Open Detection .....	16
3. Initial Operation / Configuration .....	17
3.1 Status LEDs .....	17
4. Mechanical Information & Installation .....	18
4.1 Opening the connection Chamber .....	18
4.2 Mounting Options .....	19
4.2.1 Optional Extra: Pole Mount Bracket Kit .....	20
4.2.2 Optional Extra: Extension Bracket Kit .....	21
5. Troubleshooting .....	23
6. Maintenance .....	23
6.1 Firmware Update .....	23
6.2 Spare Parts .....	24
6.3 Returns .....	24
7. Technical Specifications .....	25



## 1. Preface

This installation manual must be read carefully prior to starting the installation. The described installation works assuming that installation materials like cables, antennas and any mechanical parts are available.

This document is the hardware description of the iPOINT X. This document is intended only for mechanical and electrical installation of these central units.

IDENTEC SOLUTIONS reserves the right to make changes and updates to the content contained herein. It is the user's responsibility to contact the service department for any possible changes or updates to operating and maintenance procedures.

Updates will be provided upon request. The information in this document may be subjected to changes without prior notice.

**Check whether delivery is complete and for any damages. If the delivery is not complete or damaged immediately inform the carrier. The dispatch and service organization of IDENTEC SOLUTIONS should also be informed to facilitate the repair or exchange of the system.**

### **Product Contents (deliverables):**

- iPOINT X Device
- Mounting Plate
- Cable glands and blind plugs
- Hardware User Manual

### **Associated Documents**

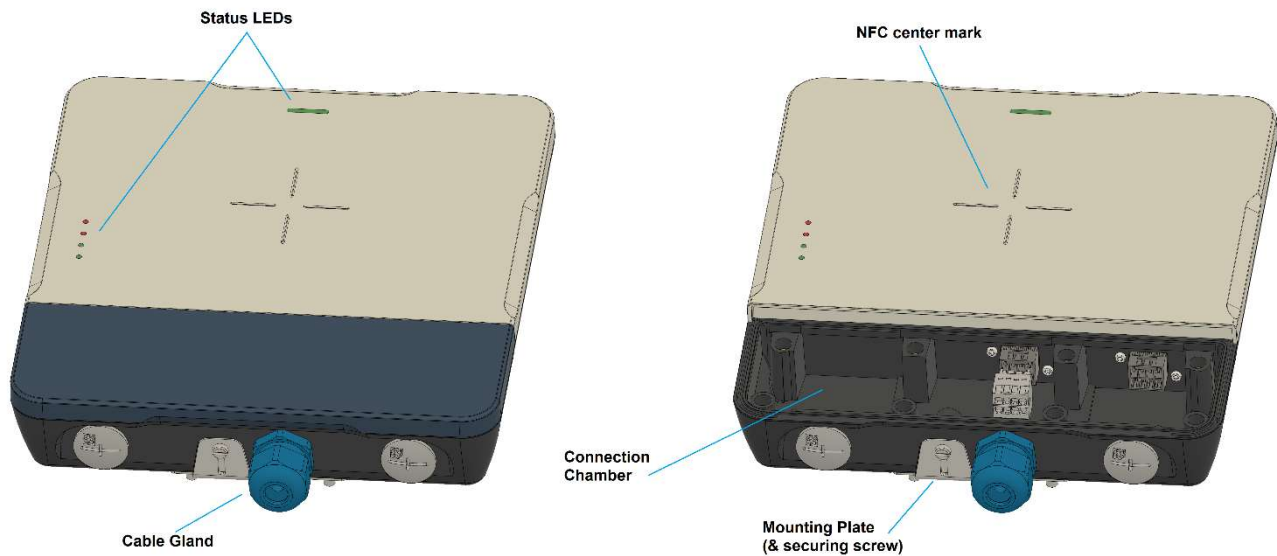
- SDK Online Help
- i-SHARE Manual
- Specific tag manuals



## 2. Introduction

### 2.1 iPOINT X and System Description

The iPOINT X device provides a functional ATEX/IECEX certified combination of: The “zone location” system of an i-MARK, the long-range Reader functionality of an i-PORT as well as close proximity NFC functionality, encased in an attractive, rugged, IP67 housing.



The Housing contains:

- 5 Status LEDs (see Section 3.1)
- a Connection Chamber where the wired interfaces can be accessed
- Relevant cable glands, as wired access points, depending on the device setup
- Mounting Plate and securing screw (see Section 4)

For a detailed description of how to correctly open the connection chamber and other mechanical information, please refer to Section 4.1.

The iPOINT X can be used as a standalone device or with an interface to an access controller. See Section 2.3 for more details.

Following is a description of the wireless technologies that are available within the iPOINT X Device.

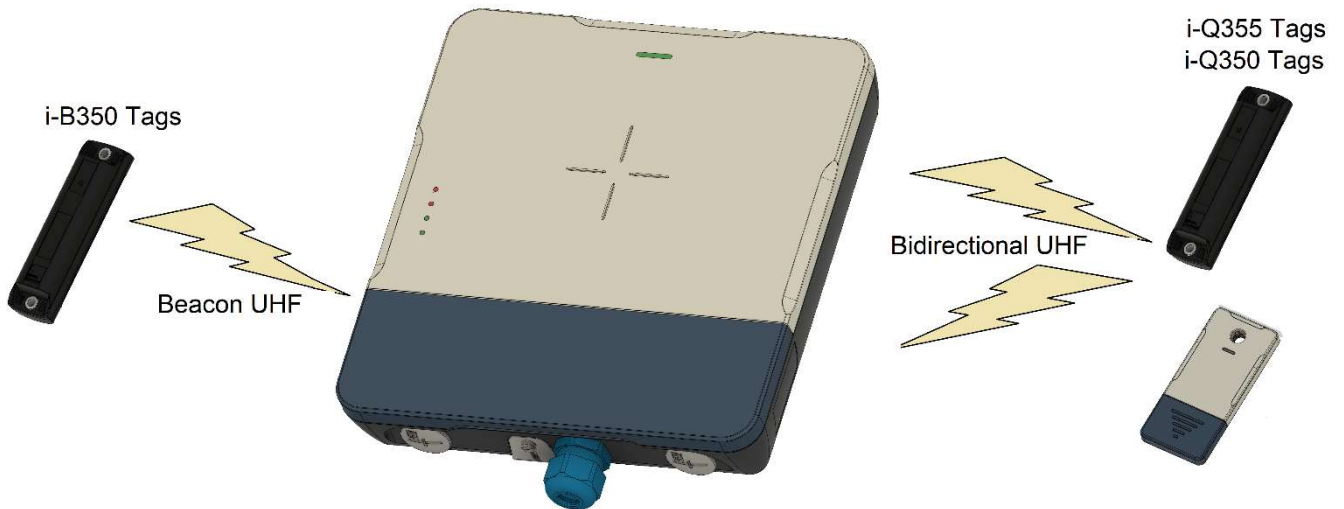


### 2.1.1 UHF Interface

The UHF interface is a wireless communication interface using the UHF ISM frequency band and IDENTEC's protocols.

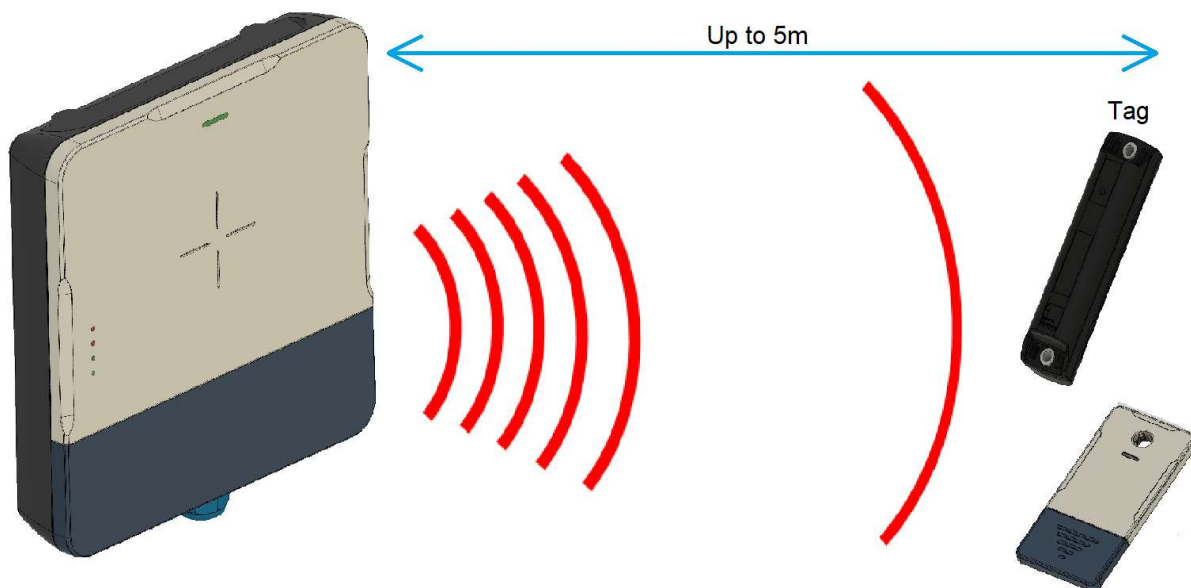
The iPOINT X has two internal UHF antennas built in and can communicate up to a range of 500 meters with its Tags.

The main benefit of two antennas is the elimination of RF dead spots in static systems.



### 2.1.2 LF Interface

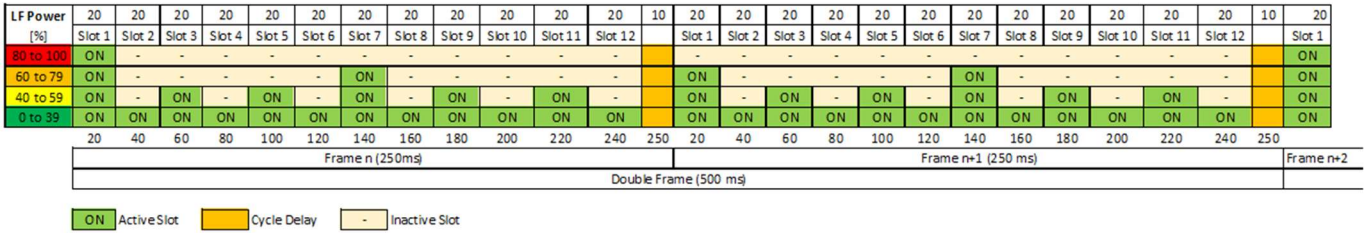
The LF Interface uses IDENTEC's LF<sup>BOOST</sup> Marker technology. Zone location at Low Frequency can be achieved with a configurable field range up to 5 Meters. This allows Tag detection in a specific area.





### 2.1.1 LF Limitations for ATEX

Due to Barrier (VCL1520) and cable series resistance, it is not possible to operate LF with full power and 12 slots all the time. Therefore, LF operation is limited by firmware according to the slot scheme and the restrictions below.



LF slot settings depending on configured LF power:

Configured LF power	Minimum Delay between LF telegram	Minimum Cycle delay	Description
0 to 39%	0 ms	10 ms	All slots active
40% to 59%	40 ms	10 ms	Only 6 slots per frame are active (1 slot inactive between 2 actives slots)
60% to 79%	100ms	10 ms	Only 2 slots actives per frame (5 slots inactive between 2 actives slots)
80% to 100%	500 ms	250 ms	Only 1 slot per double frame is active

ATTENTION: This is just an example. If you have other parameters, additional cable length or other voltage drops between the Barrier and the iPOINT X the settings mentioned above will differ and can end in improper operation of LF or even the whole device.

## 2.1.2 NFC Interface

The NFC Interface is a Near Field Communication interface. The iPOINT X can be used as an entry terminal or for other NFC communication. The range to the Tag is around 10-15cm and is compatible with the i-Q355 Series of Tags as well as standard NFC cards.





## 2.2 System Components – Tags

Identec offers a wide range of tags that can be used with the iPOINT X. The tags provide long range communication with the readers of up to 500 m (1640 ft), using advanced UHF radio frequency technology.

### i-Q355 Tags



Using advanced UHF radio frequency technology, i-Q355 tags transmit and receive data at distances of up to 250 m (820 feet). In addition, they can be configured to beacon data at a configurable ping rate to a range of up to 500 m (1640 ft).

These active RFID tags are particularly suited for:

- Access Control
- Identification
- Tracking and Tracing
- Zone localization

### i-Q350 Tags



Using advanced UHF radio frequency technology, i-Q350 tags transmit and receive data at distances of up to 250 m (820 feet). In addition, they can be configured to beacon data at a configurable ping rate to a range of up to 500 m (1640 ft).

These active RFID tags are particularly suited for:

- Identification
- Tracking and Tracing
- Localization
- Environmental Data Sensing

### i-B350 Tags



IDENTEC SOLUTIONS' i-B350 tags are designed to be cost effective and easy to implement, while offering maximum flexibility. The beacon ILR® Tags continually send out their ID at pre-programmed intervals. They do not need to be interrogated in order for them to send their information—they do it automatically.

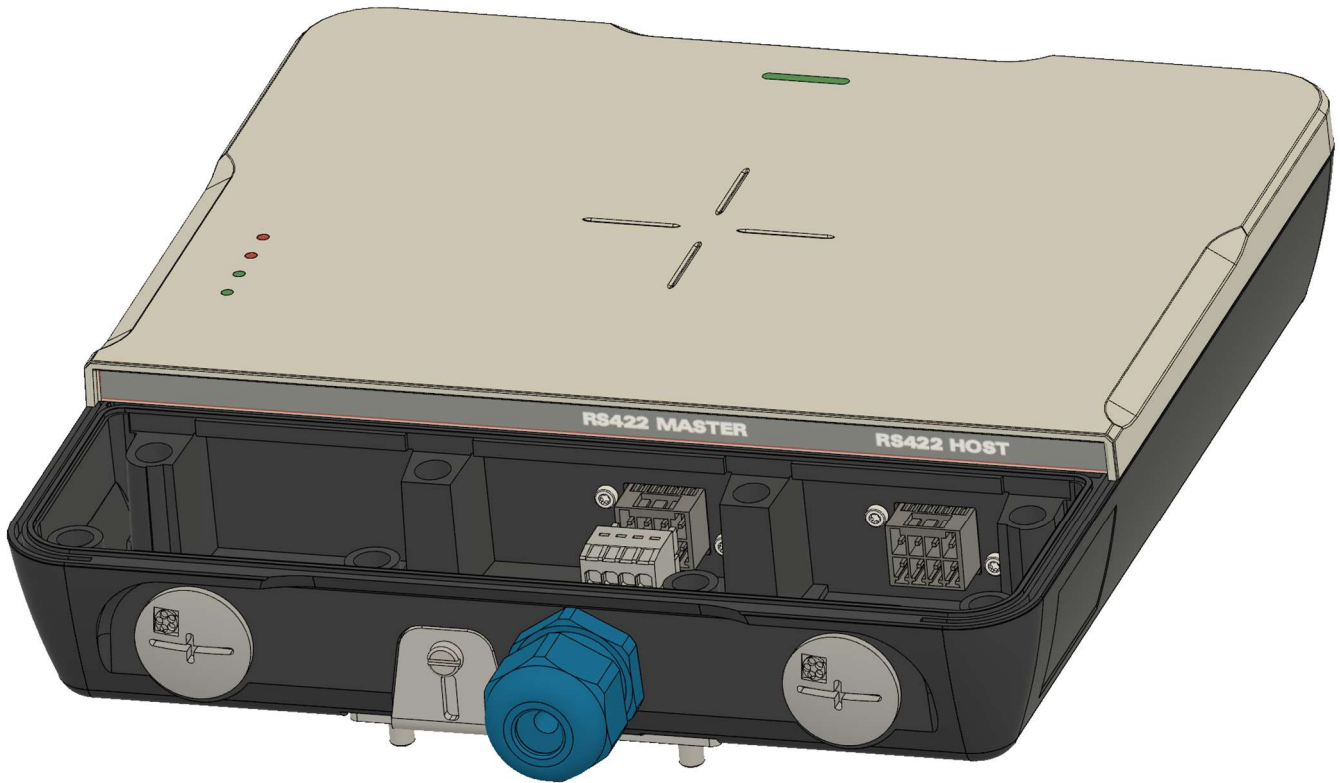
These active RFID tags are particularly suited for:

- Access control
- Tracking of Vehicles and Containers
- Online inventory
- Localization of assets at specific areas

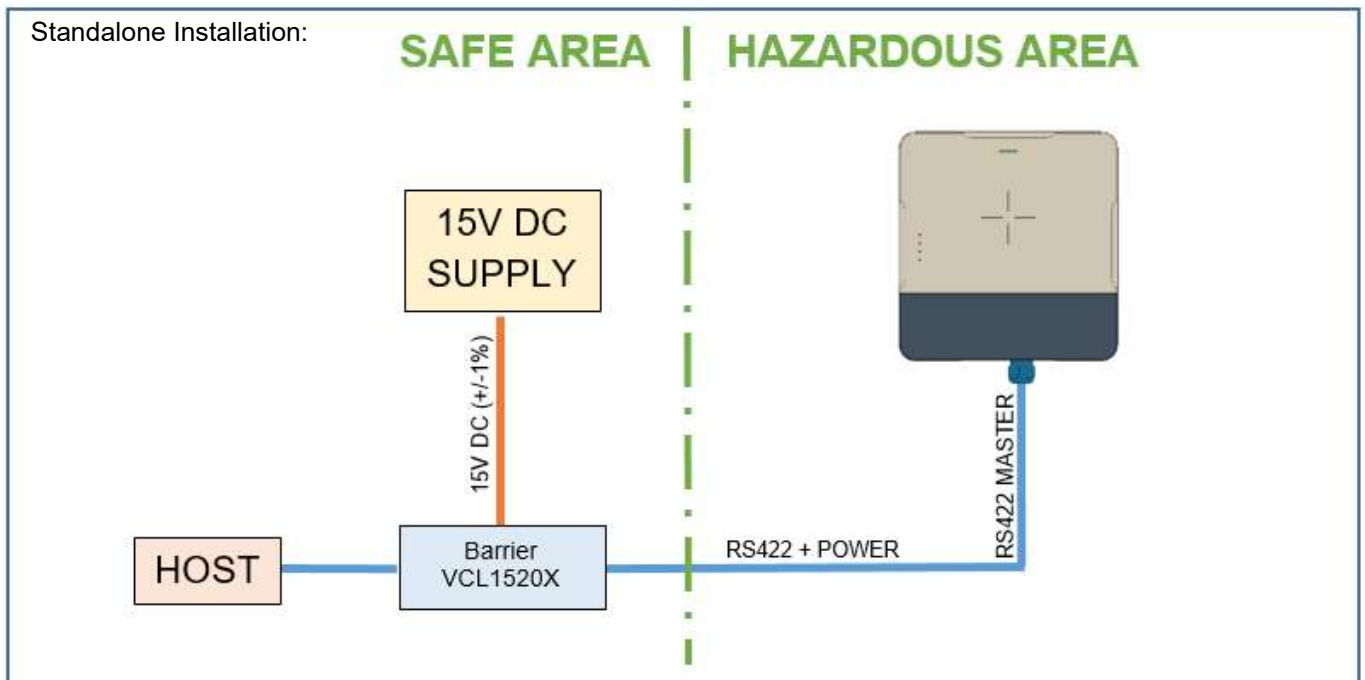
All Tag types are available with the following options:

- *Marker technology* for locating goods, vehicles, etc. The Marker technology allows selective locating of a transponder, for example in adjacent car tracks or gate applications. Here the inductive Marker field informs the ILR® Tag about its current location.
- *Temperature sensor and logging*: These types contain an internal sensor for temperature monitoring in order to measure and log the temperature of goods in definable intervals. They are also available with external sensors.
- *LED* for visual recognition, such as, for example, for "pick by light" applications. The light is visible from almost every direction.

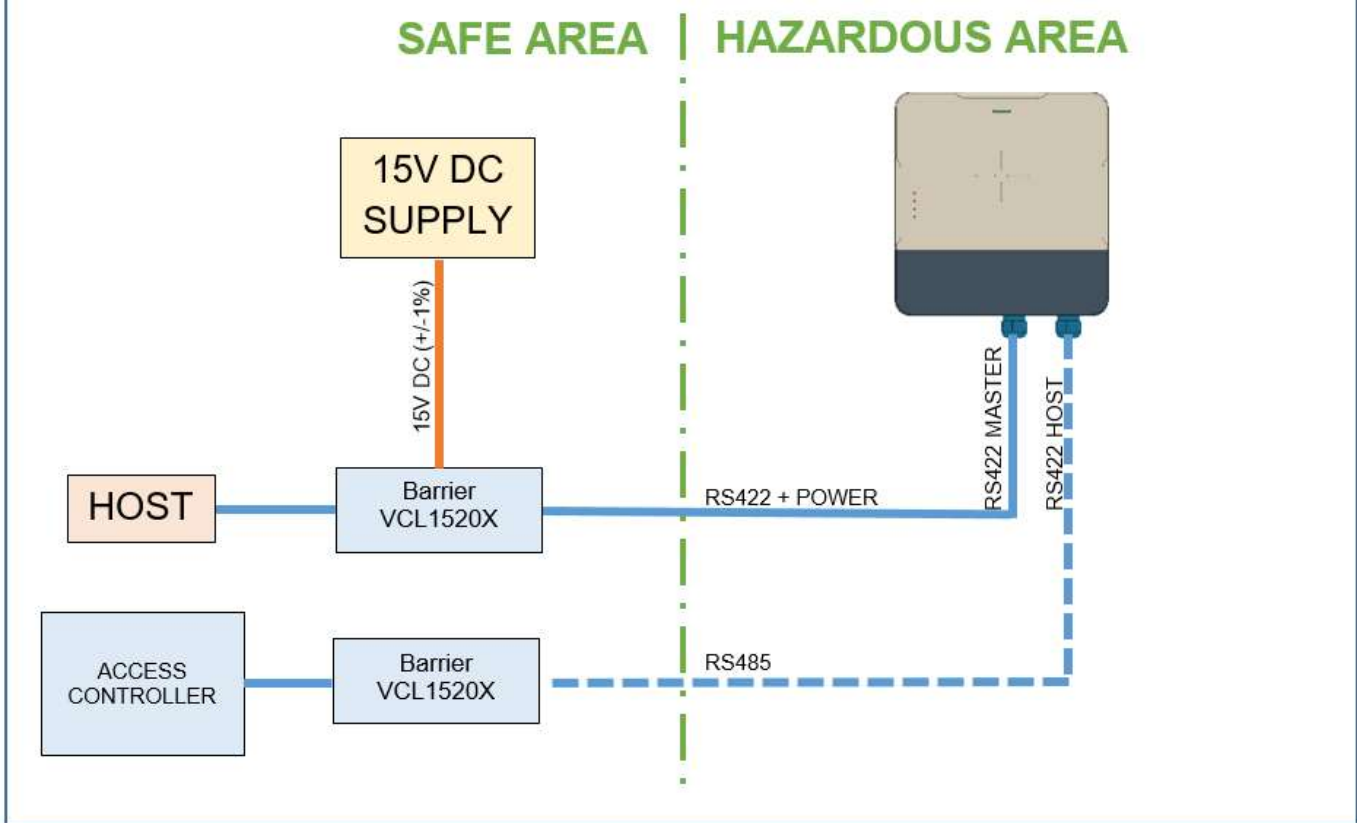
### 2.3 Ports Overview & Topologies



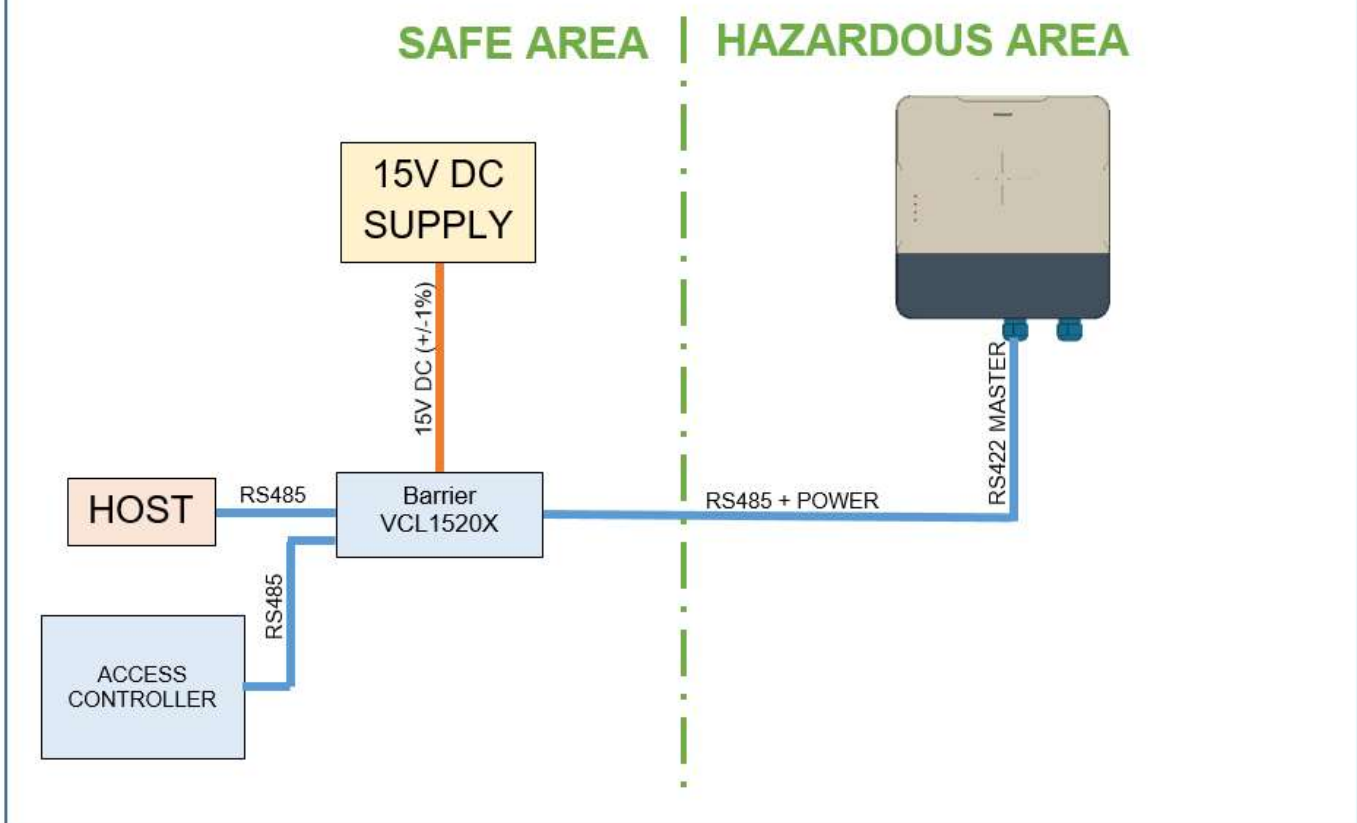
<b>RS422 MASTER</b>	RS422 or RS485 cable connector to the host computer (for connector details see section 2.3.1)
<b>RS422 HOST</b>	This can be used as a communication interface to an access controller (for connector details see section 2.3.1) (RS422 or RS485) <b>ATTENTION:</b> No Daisychaining allowed!



Installation (RS422) with Access control:



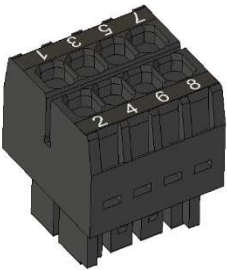
Installation (RS485) with access control:



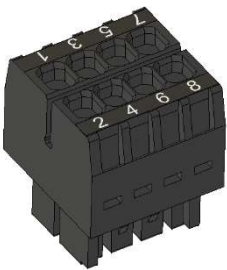
- RS422, RS485 and Power supplies, must go through *Barrier VCL1520X* outside of the Hazardous Area
- Please see Barrier „*VCL1520X User Manual.pdf*“, for more information on the barrier.



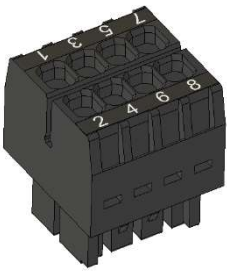
### 2.3.1 RS422 MASTER Connectors & Pinout

Wago: 713-1404	Pin Number	Designator	Comment
	1	V+	Supply Voltage from the Barrier: <b>+15V DC (+/-1%)</b>
	2	V+	Supply Voltage from the Barrier: <b>+15V DC (+/-1%)</b>
	3	GND	Ground Supply from the barrier
	4	GND	Ground Supply from the barrier
	5	RX-	RS422 communication from the barrier
	6	TX-	RS422 communication from the barrier
	7	RX+	RS422 communication from the barrier
	8	TX+	RS422 communication from the barrier

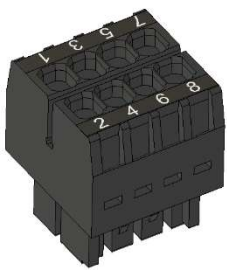
### 2.3.2 RS485 MASTER Connectors & Pinout

Wago: 713-1404	Pin Number	Designator	Comment
	1	V+	Supply Voltage from the Barrier: <b>+15V DC (+/-1%)</b>
	2	V+	Supply Voltage from the Barrier: <b>+15V DC (+/-1%)</b>
	3	GND	Ground Supply from the barrier
	4	GND	Ground Supply from the barrier
	5	DATA-	RS485 Data communication from the barrier
	6	DATA-	<b>*pin 6 bridged to pin 5*</b>
	7	DATA+	RS485 Data communication from the barrier
	8	DATA+	<b>*pin 8 bridged to pin 7*</b>

### 2.3.3 RS422 HOST Connectors & Pinout

Wago: 713-1404	Pin Number	Designator	Comment
	1	-	<i>Not Connected</i>
	2	-	<i>Not Connected</i>
	3	-	<i>Not Connected</i>
	4	-	<i>Not Connected</i>
	5	RX-	RS422 communication from the barrier
	6	TX-	RS422 communication from the barrier
	7	RX+	RS422 communication from the barrier
	8	TX+	RS422 communication from the barrier

### 2.3.4 RS485 HOST Connectors & Pinout

Wago: 713-1404	Pin Number	Designator	Comment
	1	-	<i>Not Connected</i>
	2	-	<i>Not Connected</i>
	3	-	<i>Not Connected</i>
	4	-	<i>Not Connected</i>
	5	DATA-	RS485 Data communication from the barrier
	6	DATA-	<b>*pin 6 bridged to pin 5*</b>
	7	DATA+	RS485 Data communication from the barrier
	8	DATA+	<b>*pin 8 bridged to pin 7*</b>

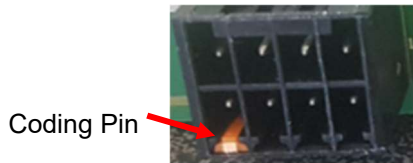


### 2.3.5 Connector coding

Important Note: Please check to use the correct coded plug before connecting wires!

Both Master and Host connector are the same type, but each one is individually coded so that they cannot be exchanged.

The RS 422 Master is coded, according to connector manufacturer recommendation, on pin 1. Nose on pin 1 removed on external connector, coding pin added on PCB part.



The RS 422 Host is coded, according to connector manufacturer recommendation, on pin 7. Nose on pin 7 removed on external connector, coding pin added on PCB part.



## 2.4 Cabling Hints

There are limitations on the RS422/RS485 Master/Host cabling:

- Shielded cables must be used to achieve the prescribed EMC
  - Shield connected to Earth on barrier side
- Cabling according to ATEX requirements (please see Ex entity data)
- 

The following table assumes that 2 wires of the cable are used for power supply connection. For the Lapp Ölflex EB CY 7 x (0,75 ...1,50) the shield shall also be used for GND connection.

Cable	Maximum Cable Length [m]	
	Cross section	Gas Group
<b>Cable Type</b>	[mm <sup>2</sup> ]	IIC IIB
IE_ToughCat7_S_FTP_e1	0,2582	40 40
Lapp Ölflex EB CY	0,75	60 125
	1,00	80 170
	1,50	100 250

ATTENTION: These are only rough cabling estimations. The cabling shall be according EN / IEC 60079-14 and, if applicable, other official national and international standards.

In special use cases the cable length can be extended depending on cable itself and iPOINT configuration.

Please contact Identec solutions.

## 2.5 Lid Open Detection

There is a feature in the iPOINT X where automatic detection of the housing being opened can be communicated to the Host system. This can be used as a safety feature or as a tamper alert.

It works via a hall sensor on the PCB and a magnet in the connection chamber lid. When the magnet moves from the vicinity of the hall sensor, an alert is triggered and sent to the microcontroller.



## 3. Initial Operation / Configuration

The configuration of the iPOINT X is managed via the host software.

### Available Identec Solutions Software

- Setup Scout
- i-Share
- Crew Companion

Please refer to the relevant software User Manuals for details.

### 3.1 Status LEDs



#### UHF

This is the UHF Communication LED. LED blinks green when a valid command has been sent to Tag. It blinks Orange when a response or a broadcast is received.

#### LF

This is the LF Communication LED. LED blinks green when Marker Loop ID is sent. It blinks red if LF is not working properly (e.g. loop broken or loop current too low).

#### COM

This is the wired interface LED. It blinks green when a command is received and orange when responding over RS422 or RS485.

Note: Because of short communication you can see just the orange blink.

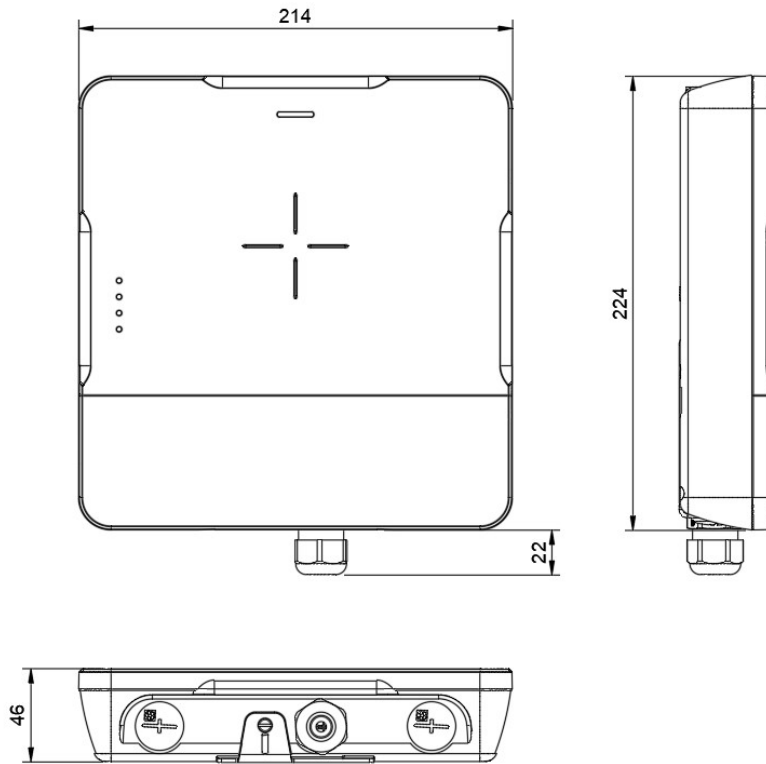
#### RUN

This is the general Device run LED. It blinks Green if everything is OK. Blinks red if the voltage is too low or a Hardware issue is detected

#### NFC (top)

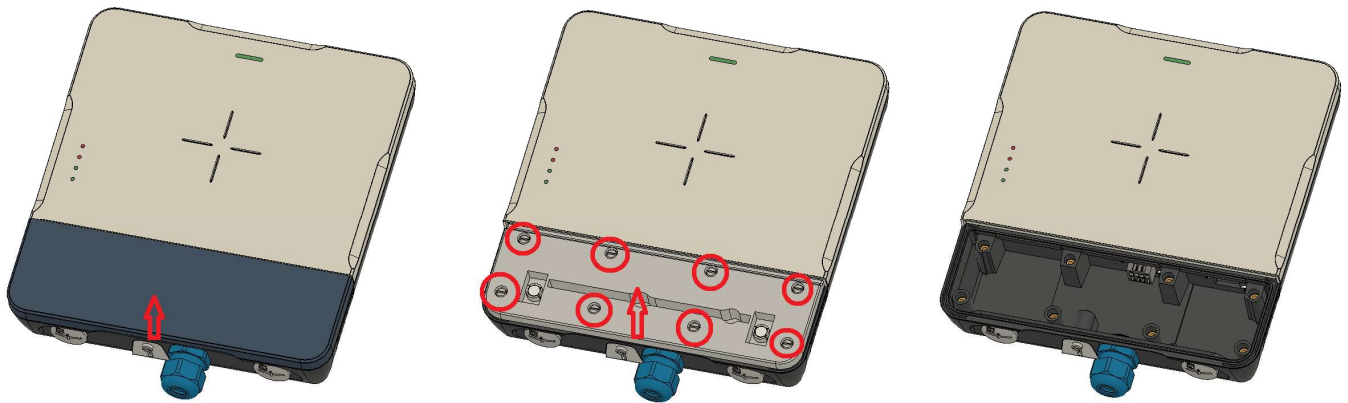
This is the NFC Card read LED. Is green when access is granted, red when access is denied.

## 4. Mechanical Information & Installation



*Housing Dimensions*

### 4.1 Opening the connection Chamber

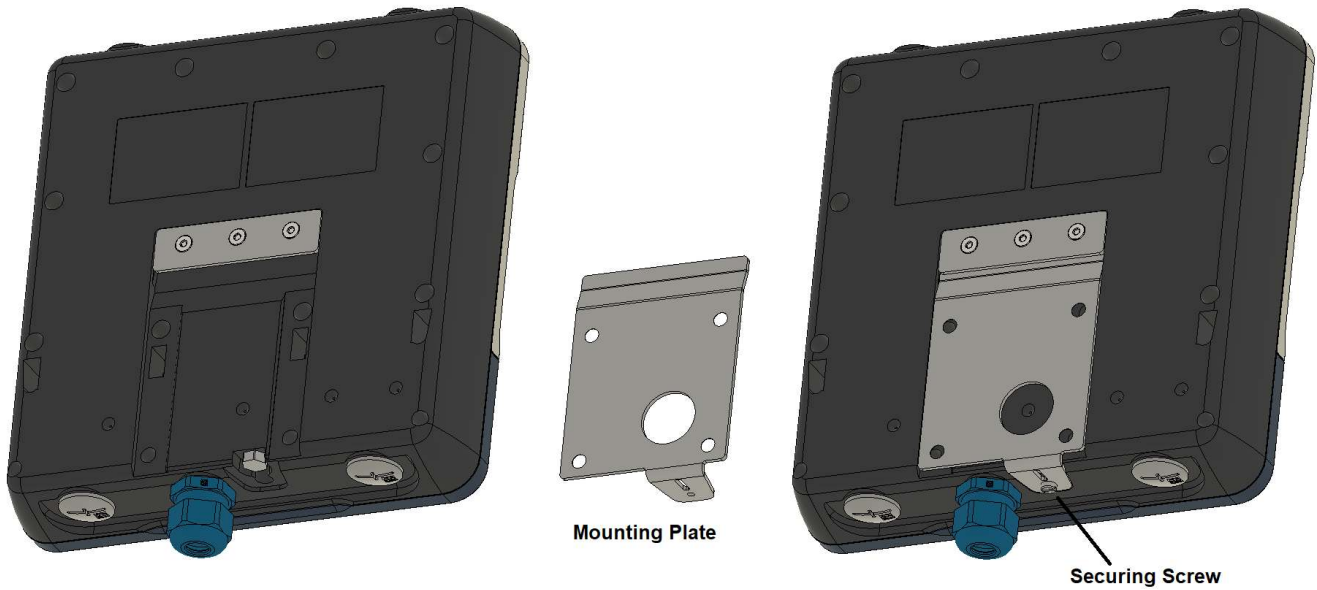


1. Lift up the cover using thumbs from the front side until magnetic connection is released, lift off.
2. Loosen the 8x screws, be aware, DO NOT pull out the screws completely, the gasket can be damaged.
3. Lift off the lid.
4. Now you have access to the Connection Chamber

*Note:* when replacing the lid, be sure that the sealing gasket is correctly in place.

*Note:* The rest of the housing cannot be accessed. There is no settings or modifications to be made there.

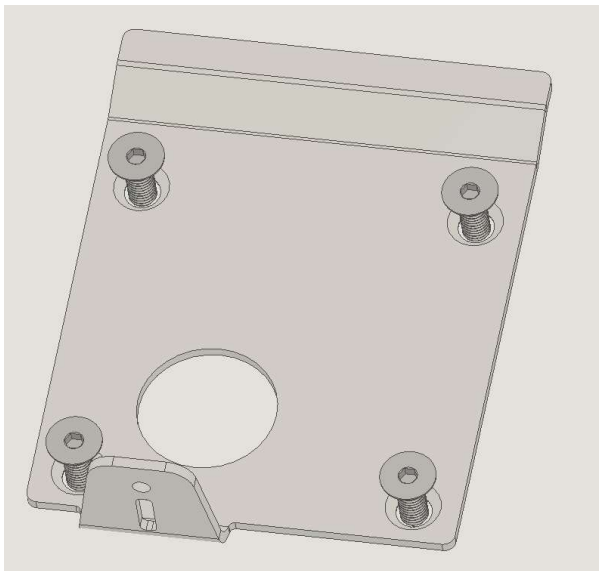
## 4.2 Mounting Options



The mounting plate can be attached to a wall, pole mount bracket, extension bracket or DIN rail. There are 4 fixing holes for attaching the relevant bracket or screwing to a wall.

For mounting with a pole mount bracket or extension bracket, please see relevant Installation guides provided with the kits.

For Direct wall mounting, using the mounting plate only, 4x countersunk screws are required with a maximum diameter of 5mm or M5 screws. Length and type shall be chosen depending on wall material.



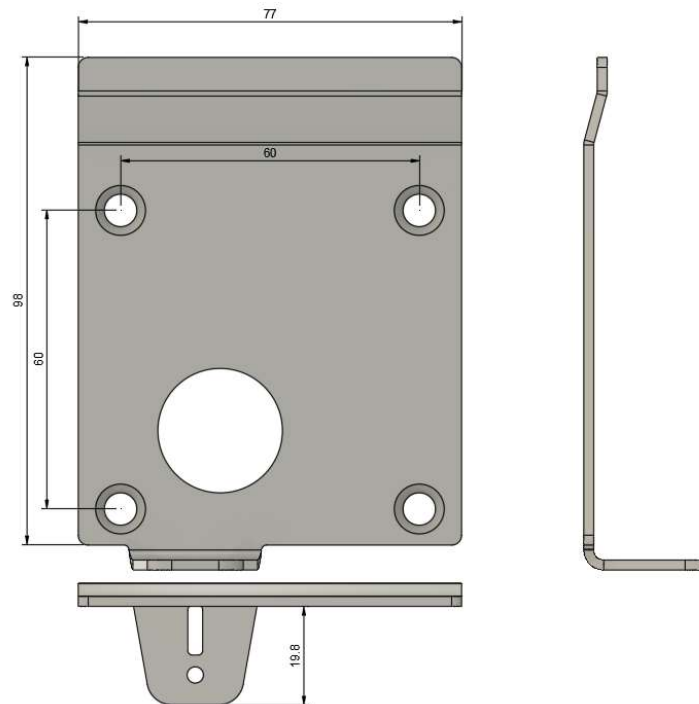
Wall

- 4x countersunk screws
- Choose screw type and length depending on wall material
- Maximum diameter of 5mm
- Screw plate securely to the wall using all 4 screws
- the iPOINT X device can then be clipped onto the plate and secured with the securing screw

**Warning:** Don't screw the mounting plate directly to a metal surface that extends the size of the whole device. This will have an influence on the UHF and LF performance. If a metal fixing surface is required, please use the extension bracket as a standoff.

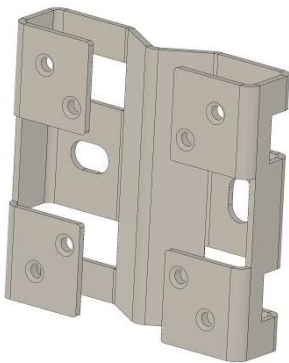


**Warning:** when unmounting device from the mounting plate, first lift the device up, then out; do not pull device directly or there's a risk of damage.



#### 4.2.1 Optional Extra: Pole Mount Bracket Kit

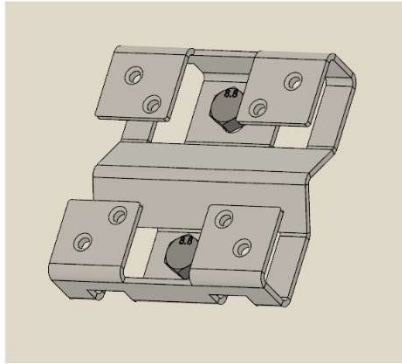
A *Pole Mount Bracket Kit* is available.



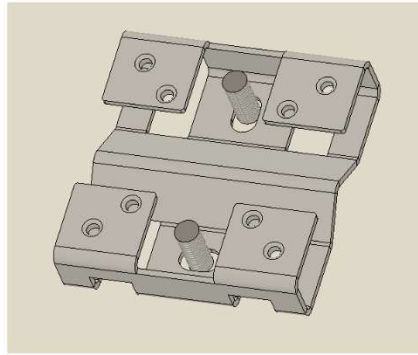
- Pole Mount Bracket Kit:
  - o Contains the bracket and accessories
  - o The bracket can be mounted to a wall with M8 Bolts or via threaded rods (e.g. wall anchors)
  - o The bracket can also be mounted onto vertical or horizontal poles
  - o Refer to "*Pole Mount Bracket Kit – Quick Installation Guide*" documentation for more details.



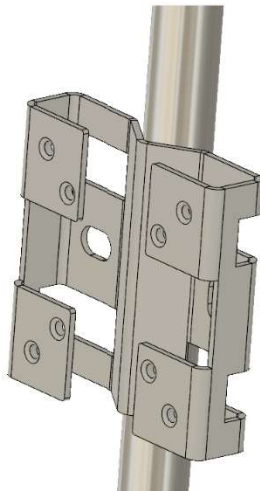
**Wall Mounted (bolts)**



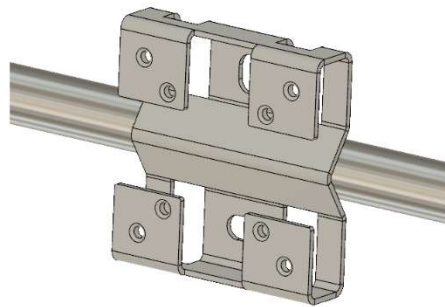
**Wall Mounted (threaded Rods)**



**Vertical Pole Mounted**

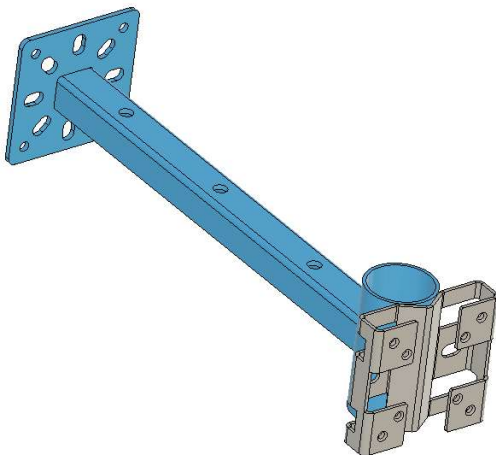


**Horizontal Pole Mounted**



#### 4.2.2 Optional Extra: Extension Bracket Kit

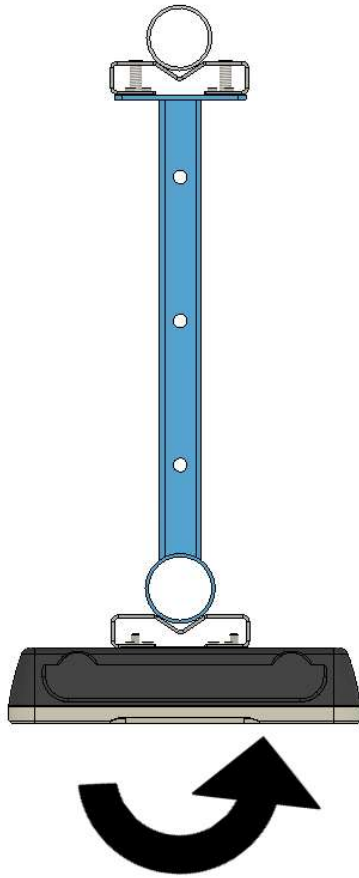
An *Extension Bracket Kit* is available



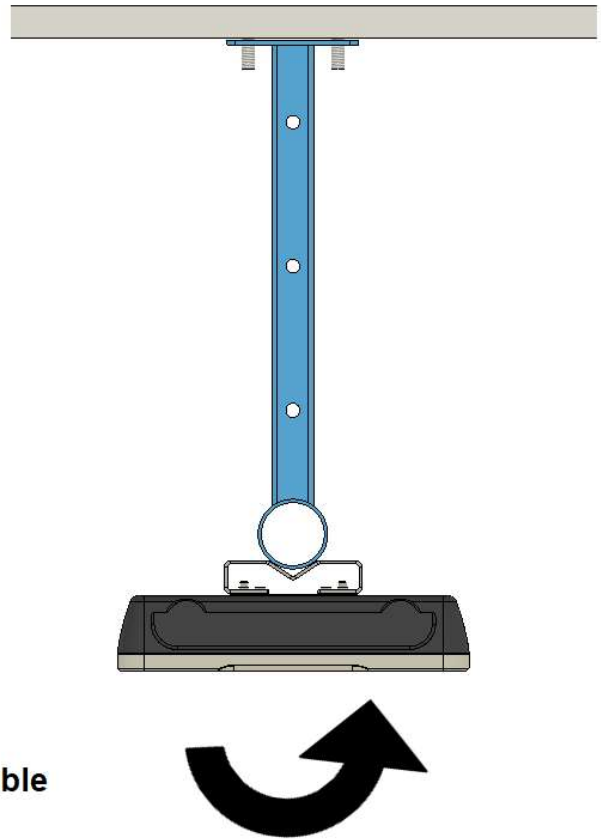
- Extension Bracket Kit:
  - Contains the bracket and accessories
  - The bracket can be mounted to a wall with M8 Bolts or via threaded rods (e.g. wall anchors)
  - Multiple mounting options, including use of the pole mount bracket
  - Refer to “*Extension Bracket Kit – Quick Installation Guide*” documentation for more details.



**Pole mounted  
(via additional pole mount bracket)**



**Wall mounted (direct)**



**Rotatable**





## 5. Troubleshooting

This chapter covers how faults can be recognized and rectified. There are potentially four main problem sources:

- The user control system, including task requirements, communication cables, peripheral units with possible object recognition switches.
- The Crew Companion platform including peripheral units and their cables, also potential object recognition switches.
- The environment including large objects between antenna and ILR® Tags, electrical disturbance sources, intervention by persons, etc.
- The quality of the technical design, including alignment between antenna, data, ratio of task requirements/available communication time etc. The information about system performance is contained in the relevant datasheets.

When planning the total system, not overlook the problem sources and “Fault finding procedures on system level” should be included in the host system. How this could look in detail depends on the relevant system concept and very likely varies from one system to another.

### A Brief Checklist

- Are all housings intact?
- Are all cables intact?
- Are all connectors intact?
- Are all connectors securely fastened?
- Are all screws still tight?
- Is there a sudden malfunction at a specific unit?
- What are the status of the LEDs? is the ‘RUN’ LED flashing?

## 6. Maintenance

When installed correctly the iPOINT X system will operate virtually maintenance free for many years. However, in the event maintenance is required, only trained and authorized personnel are permitted to perform the updates, changes and necessary maintenance.

### Regular Cleaning of the Surface

If the device needs cleaning, use a soft cloth moistened with a mild rinsing agent. Do not use cleaning products containing chemical additives.

### Precautionary Maintenance

A regular check of the system is recommended. Unstable connections could lead to damage and malfunctions of the system and should therefore be repaired as soon as possible.

### 6.1 Firmware Update

The firmware is stored in a FLASH memory and can be updated if needed.



## 6.2 Spare Parts

### Recommended spare parts stock

In order to minimize the downtime in the event of a malfunction, it is recommended to have certain spare parts on stock. For larger systems with more than 15 iPOINT Xs, doubling of the recommended stock quantity is recommended.

Furthermore, it is advised to have several spare ILR® Tags in stock, corresponding to approx. 0.5 – 1 % of the total number of ILR® Tags.

### Preparing the spare parts

In general, all spare parts can be used immediately upon delivery from IDENTEC SOLUTIONS. However, for the iPOINT X there are various settings of the communication parameters.

In order to keep down times short it is recommended that these parameters are set before the component is entered into the spare part stock system. In most cases all units within an identification system are used in the same way so that only one setting is required.

### Examination and repair of exchanged parts

The data ILR® Tags and iPOINT X devices are complex electronic power units on which the customer can carry out only very limited repairs. Normally the repairs are carried out at IDENTEC SOLUTIONS or possibly at a distributor. Before a part is sent in for repair a short examination should be conducted.

## 6.3 Returns

Parts or main components returned for repair or exchange must be handled with great care. All returns should include an error description and a short application overview and be sent to the local distributor or to:

IDENTEC SOLUTIONS AG  
Service Department  
Millennium Park 2  
6890 Lustenau  
AUSTRIA

*For full details, refer to our “Return and Repair Policy” on our website.*



## 7. Technical Specifications

### Communication ILR<sup>350</sup> technology

Operation Mode	UHF Broadcast or response communication
Read Range	up to 500 m <sup>1</sup>
Compatibility	i-B350, i-Q350, iQ355 Tags
Operating Frequency	UHF ISM Band: 868 MHz (EU) or 920 MHz (NA) <sup>2</sup>
Antenna / Transmit Power	2x Internal Antennas / <1mW

### Communication LF<sup>boost</sup> Marker

Operation Mode	Sends Marker ID at a predefined interval
Exciter Range	up to 5m (adjustable) <sup>1</sup>
Compatibility	LF <sup>boost</sup> enabled tags
Operating Frequency	125kHz

### Communication NFC

Antenna	Integrated 13.56MHz coil (read/write)
Standards	ISO/IEC 15693, ISO/IEC 14443A&B, Sony FeliCa
Status Notification	NFC detection notification via Buzzer and LED

### Performance

Multiple Tag handling	Up to 1000 ILR Tags per read zone
Marker ID	16bit programmable

### Interfaces

Data Interface Master	RS422 / RS485 (Optional)
Data Interface Host	RS422 / RS485 (Optional)
Status Display	5 LEDs (UHF, LF, COM, RUN & NFC)

### Electrical

Power Source	+15 VDC (+/-1%) - over Barrier VCL1520X
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### Environmental Conditions

Operating Temperature	-40°C to +70°C (-40°F to +158 °F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	Up to 50%, non-condensing (open), 100% (closed)
Shock:	EN 60068-2-32: Multiple drops to concrete from 1m (3ft), 5 times EN 60068-2-29: 50G on all 3 axis, 3 times per axis
Vibrations	EN 60068-2-64: noise 5 to 1000Hz, 90 minutes per axis EN 60068-2-6: 5G, 20 sin wave cycles per axis, 5-500Hz

### Standard/Certification

Europe	<b>CE</b> (EN 300 220-1, -2, -3; EN 301 489-1,-3; EN 62368-1, EN60950-22)
North America	<b>FCC</b> Part 15 (US); <b>IC</b> RSS210
Hazardous Area (Gas)	ATEX: II 2G iB IIC T4 Gb, IECEX: Ex ib IIC T4 Gb
(Mining)	ATEX: I M2 Ex ib I Mb IECEX: Ex ib I Mb

### Mechanical Data

Dimensions	(L) 224 x (W) 214 x (T) 46 mm
Housing Colours	<i>Front:</i> RAL 9002 Gray-White, <i>Back:</i> RAL 7024 Graphite-Grey <i>Lid:</i> RAL 5003 Sapphire-Blue
Enclosure Material	Plastic (PC-ASA)
Enclosure Rating	IP67
Weight	~2kg

### Order Code

iPOINT X (IDS1002)	455990
Pole Mount Bracket (kit)	456001

<sup>1</sup> The communication range depends on environmental conditions and national regulation limits

<sup>2</sup> Other country frequencies are available, please contact IDENTEC SOLUTIONS

Front View of the Connectors:



**Ex Electrical Parameters**

Tamb = -40°C to +70°C

Connector Name (Designator)		RS422 MASTER (P1)		RS422 MASTER (P1) RS422 HOST (P1)		Radio	P <sub>TXMAX</sub> (mW)
		Supply Lines		Data Lines		All antennas internal	
	Group	P1 - Pin	Value	P1 - Pin	Value	Frequency	Value
U <sub>i</sub> (V)	IIB	P1.1 P1.2	<b>16,065</b>	P1.5 P1.7	<b>6,135</b>	UHF	868 MHz 920 MHz
I <sub>i</sub> (A)	IIC		<b>0,474</b>	P1.6 P1.8	<b>0,196</b>		
P <sub>i</sub> (W)			<b>1,904</b>		<b>0,301</b>		
U <sub>o</sub> (V)	IIB			P1.6 P1.8	<b>4,935</b>	NFC	13,56 MHz
I <sub>o</sub> (A)	IIC				<b>0,088</b>		
P <sub>o</sub> (W)					<b>0,109</b>		
C <sub>i</sub> (µF)	IIB	P1.1 P1.2	<b>0,000</b>	P1.5 P1.7	<b>0,000</b>	LF	125 kHz
L <sub>i</sub> (mH)	IIC		<b>0,000</b>	P1.6 P1.8	<b>0,000</b>		
C <sub>o</sub> (µF)	IIB			P1.5 P1.7	<b>7,300</b>		
L <sub>o</sub> (mH)				P1.6 P1.8	<b>8,800</b>		
C <sub>o</sub> (µF)	IIC			P1.5 P1.7	<b>1,200</b>		
L <sub>o</sub> (mH)				P1.6 P1.8	<b>1,900</b>		
C <sub>o</sub> (µF)	I (Mining)			P1.5 P1.7	<b>34,000</b>		
L <sub>o</sub> (mH)				P1.6 P1.8	<b>100,000</b>		



# Visibility Delivered.

## Contact us

### EUROPE

+43 5577 87387-0  
sales@identecsolutions.com

### NORTH AMERICA

+1 972 535-4144  
sales@identecsolutions.com

### HEAD OFFICE

IDENTEC SOLUTIONS AG  
Millennium Park 2  
6890 Lustenau  
Austria

Tel. +43 5577 87387 0  
Fax +43 5577 87387 15

### GERMANY

IDENTEC SOLUTIONS  
DEUTSCHLAND GMBH  
Hongkongstraße 3  
20457 Hamburg  
Germany

Tel. +43 5577 87387 0  
Fax +43 5577 87387 15

### USA

IDENTEC SOLUTIONS, INC.  
5057 Keller Springs Rd.  
Suite 300  
Addison, Texas 75001  
USA

Tel: +1 972 535 4144

### NORWAY

IDENTEC SOLUTIONS  
NORWAY AS  
Andøyfaret 15  
4623 Kristiansand  
Norway

Tel. +47 38 00 35 30  
Fax +47 38 00 35 31

### AUSTRALIA

IDENTEC SOLUTIONS  
AUSTRALIA AND NEW  
ZEALAND P/L  
Riverview Business Park 72  
Maribyrnong St, Footscray,  
3011 Australia

Tel. +61 3 9396 8900  
Fax +61 3 9689 2493