



# I-Q310 SERIES USER MANUAL

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Reg.-No. IM.0780.EN

Order code:

Issue 0 / February 2009

– 29. June 2009 –

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Printed in Germany

## Radio Frequency Compliance Statement

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

MODEL:	i-Q310 SET, i-Q310 ATR, i-Q310 DTR,i-Q310 LPT
EUROPE:	CE
USA	FCC ID 004-IQ310
Canada	IC:3538A-IQ310

The user(s) of these products are cautioned to only use accessories and peripherals approved, in advance, by IDENTEC SOLUTIONS. The use of accessories and peripherals, other than those approved by IDENTEC SOLUTIONS, or any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

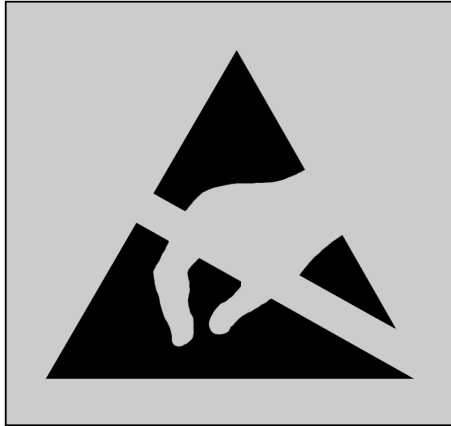
Operation is subject to the following conditions: (1) these devices may not cause harmful interference, and (2) these devices must accept any interference, including interference that may cause undesired operation of the device.

### European Notification according R&TTE Directive

This equipment complies to Art. 6.4 of R&TTE Directive (1999/5/EC). It is tested for compliance with the following standards: EN 300 220, EN301489, EN60950

### USA Notification

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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. Even better: 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 require this.
- 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.
- Only remove unit and components from the packaging immediately prior to installation.

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

## Sensor Tag i-Q310 SET



The i-Q310 series of tags is IDENTEC SOLUTIONS' well-established generation of Intelligent Long Range® (ILR®) active RFID tags based on the ISO 18000-7 standard.

ILR provides highly accurate, real-time data collection without human intervention in wireless applications such as:

- identification
- tracking and tracing
- sensor logging.

Using advanced UHF radio frequency technology, i-Q310 SET tags transmit and receive data at distances of up to 100 meters (300 feet).

These tags include also hardware interface for fast and secure data upload and a database based memory of up to 128 kBytes, as well as 32 kBytes of memory for sensor logging.

The Sensor Tag offers sensors for door breach, light intrusion, temperature, humidity and shock. The thresholds for the breach condition can be specified by the user.

The standardized anti-collision multi-tag-handling algorithm allows communication to tags even when thousands of tags are within the interrogator's read zone.

Because of its very low power consumption, the tag can operate effectively for over 3 years. Integrated speaker supports acoustic signalization during search, locate and alarms.

The i-Q310 tag line can withstand the abuse expected from work processes; the tags come in various form factors and with various features and memory sizes and are ideal fit for high volume tracking of assets.

**FEATURES**   **BENEFITS**

- |  |   |
|--|---|
| ■ 100-meters (300 ft) read/write range | Allows automated identification, tracking and tracing of assets without human intervention.   |
| ■ 128 kBytes user memory               | Stores up to 128 kBytes of user data.   |
| ■ 32 kBytes memory for sensors         | Additional 32 kBytes of memory is available for sensor logging.   |
| ■ 433 MHz operating frequency          | Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions.                                |
| ■ ISO/IEC 18000-7 compatible           | Manufacturer independent interoperation. US DoD and NATO ITV compatible.  |
| ■ USB 2.0 Hardwire Interface           | Fast and secure data transfer with USB connection with mini-B connector.  |
| ■ Speaker                              | Acoustic signalization during search, locate, alarms.   |
| ■ 3-year battery lifetime and more     | Delivers long-time maintenance-free operation, without battery replacement.   |
| ■ Replaceable battery                  | Battery is replaceable to extend the tag's lifetime, tag provides battery status to the reader.   |
| ■ Easy attachment to assets            | Using easy on/off mounting bracket, the tag is easily and securely attached to any asset.   |
| ■ Security sensors                     | The tag utilizes a door breach sensor as well as light, temperature, humidity and shock sensors.  |
| ■ Sensor indication and labeling       | Features "sensor on/off" indication and also provides the type of sensor(s) selected indicator labeling.  |
| ■ User access to tag functions         | The tag provides user selectable method to access the sensor activation, alarm status, and low battery state of the tag without the need for an interrogator. |
| ■ Status reporting                     | The tag sends sensor activation state and alarm status to the reader during collections.  |
| ■ Communication on demand only         | Eliminates RF flooding through software-controlled read/write operations.   |
| ■ Non-line-of-sight data transmission  | Allows tags to be buried while transmitting for improved tracking/locating efficiency.  |

## Asset Tag i-Q310 ATR



The i-Q310 series of tags is IDENTEC SOLUTIONS' well-established generation of Intelligent Long Range® (ILR®) active RFID tags based on the ISO 18000-7 standard.

ILR provides highly accurate, real-time data collection without human intervention in wireless applications such as:

- identification
- tracking and tracing.

Using advanced UHF radio frequency technology, i-Q310 ATR tags transmit and receive data at distances of up to 100 meters (300 feet).

The standardized anti-collision multi-tag-handling algorithm allows communication to tags even when thousands of tags are within the interrogator's read zone.

Because of its very low power consumption, the tag can operate effectively for over 3 years.

Integrated speaker supports acoustic signalization during search, locate and alarms.

The i-Q310 tag line can withstand the abuse expected from work processes; the tags are very economical and an ideal fit for high volume tracking of assets.

### **FEATURES**   **BENEFITS**

- |  |  |
|--|--|
| ■ 100-meters (300 ft) read/write range | Allows automated identification, tracking and tracing of assets without human intervention.                                    |
| ■ 2 kBytes memory                      | Stores 2 kBytes of user data.  |
| ■ 433 MHz operating frequency          | Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions. |
| ■ ISO/IEC 18000-7 compatible           | Manufacturer independent interoperation. US DoD and NATO ITV compatible.   |
| ■ Speaker                              | Acoustic signalization during search, locate, alarms.  |
| ■ 3-year battery lifetime and more     | Delivers long-time maintenance-free operation, without battery replacement.  |
| ■ Replaceable battery                  | Battery is replaceable to extend the tag's lifetime.   |
| ■ Communication on demand only         | Eliminates RF flooding through software-controlled read/write operations.  |
| ■ Non-line-of-sight data transmission  | Allows tags to be buried while transmitting for improved tracking/locating efficiency.   |
| ■ Low cost                             | Economical tracking of large quantities of assets using high-performance active technology.                                    |

## Data Rich Tag i-Q310 DRT



The i-Q310 series of tags is IDENTEC SOLUTIONS' well-established generation of Intelligent Long Range® (ILR®) active RFID tags based on the ISO 18000-7 standard.

ILR provides highly accurate, real-time data collection without human intervention in wireless applications such as:

- identification
- tracking and tracing.

Using advanced UHF radio frequency technology, i-Q310 DRT tags transmit and receive data at distances of up to 100 meters (300 feet).

These tags include also hardware interface for fast and secure data upload and download with memory of up to 128 kBytes.

The standardized anti-collision multi-tag-handling algorithm allows communication to tags even when thousands of tags are within the interrogator's read zone.

Because of its very low power consumption, the tag can operate effectively for over 3 years.

Integrated speaker supports acoustic signalization during search, locate and alarms.

The i-Q310 tag line can withstand the abuse expected from work processes; the tags come in various form factors and with various features and memory sizes and are ideal fit for high volume tracking of assets.

### **FEATURES**   **BENEFITS**

- |  |  |
|--|--|
| ■ 100-meters (300 ft) read/write range | Allows automated identification, tracking and tracing of assets without human intervention.                                    |
| ■ 128 kBytes memory                    | Stores up to 128 kBytes of user data.  |
| ■ 433 MHz operating frequency          | Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions. |
| ■ ISO/IEC 18000-7 compatible           | Manufacturer independent interoperation. US DoD and NATO ITV compatible.   |
| ■ Speaker                              | Acoustic signalization during search, locate, alarms.  |
| ■ USB 2.0 Hardwire Interface           | Fast and secure data transfer with USB connection with mini-B connector.   |
| ■ 3-year battery lifetime and more     | Delivers long-time maintenance-free operation, without battery replacement.  |
| ■ Replaceable battery                  | Battery is replaceable to extend the tag's lifetime.   |
| ■ Communication on demand only         | Eliminates RF flooding through software-controlled read/write operations.  |
| ■ Non-line-of-sight data transmission  | Allows tags to be buried while transmitting for improved tracking/locating efficiency.   |



## License Plate Tag i-Q310 LPT



The i-Q310 series of tags is IDENTEC SOLUTIONS' well-established generation of Intelligent Long Range® (ILR®) active RFID tags based on the ISO 18000-7 standard.

ILR provides highly accurate, real-time data collection without human intervention in wireless applications such as:

- identification
- tracking and tracing.

Using advanced UHF radio frequency technology, i-Q310 LPT tags transmit and receive data at distances of up to 100 meters (300 feet).

The standardized anti-collision multi-tag-handling algorithm allows communication to tags even when thousands of tags are within the interrogator's read zone.

Because of its very low power consumption, the tag can operate effectively for over 3 years.

Integrated speaker supports acoustic signalization during search, locate and alarms.

The i-Q310 tag line can withstand the abuse expected from work processes; the tags are very economical and an ideal fit for high volume tracking of assets.

### **FEATURES**   **BENEFITS**

- |  |  |
|--|--|
| ■ 100-meters (300 ft) read/write range | Allows automated identification, tracking and tracing of assets without human intervention.                                    |
| ■ Memory for user routing code         | Stores user definable routing code information and read-only tag ID.   |
| ■ 433 MHz operating frequency          | Allows low-power, long communication range and high data transmission rates with minimal interference due to local conditions. |
| ■ ISO / IEC 18000-7 compatible         | Manufacturer independent interoperation. US DoD and NATO ITV compatible.   |
| ■ Speaker                              | Acoustic signalization during search, locate, alarms.  |
| ■ 3-year battery lifetime and more     | Delivers long-time maintenance-free operation, without battery replacement.  |
| ■ Replaceable battery                  | Battery is replaceable to extend the tag's lifetime.   |
| ■ Communication on demand only         | Eliminates RF flooding through software-controlled read/write operations.  |
| ■ Non-line-of-sight data transmission  | Allows tags to be buried while transmitting for improved tracking/locating efficiency.   |
| ■ Low cost                             | Economical tracking of large quantities of assets using high-performance active technology.                                    |