



# i-Q350T SL TEMPERATURE TAG

The brand new i-Q350 series of tags combines the features of IDENTEC SOLUTIONS' well-established i-Q and i-B series. In addition the i-Q350 series tags provide an even larger communication range of up to 500 m



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

- identification
- tracking and tracing
- localization and
- temperature monitoring.

Using advanced UHF radio frequency technology, i-Q350T SL tags transmit and receive data at distances of up to 250 m (800 feet). In addition they can be configure

to beacon data at a configurable range of up to 500 m (1600 ft).

The i-Q350T SL tag contains an internal sensor for temperature monitoring in order to measure and log the temperature of goods in definable intervals. It is also available with external sensors.

With its LED, the tag supports visual recognition, such as, for example, for "pick by light" applications.

## BENEFITS

Tag operates in beacon mode - In this configurable operation mode the tag can automatically transmit data over a range of up to 500 m (1600 ft).

Tag operates in response mode - In this standard operation mode data can be written onto or read from the tag over a range of up to 250 m (800 ft).

2000-tag simultaneous identification - Large numbers of tags can be identified virtually simultaneously.

LED - Provides visual identification of an addressed tag ("pick by light").

Temperature logging - Measures and logs the temperature of goods in definable intervals.

10,000 Bytes memory - Stores user and process information as well as temperature data onto the tag to provide real-time tracking and tracing. Can be used as an electronic packing slip or as an electronic shop traveler.

## FEATURES

- Tag operates in beacon mode
- Tag operates in response mode
- 2000-tag simultaneous identification
- LED
- Industrial housing
- Temperature logging
- 10,000 Bytes memory
- UHF operating frequencies
- 6 year battery lifetime
- Non-line-of-sight data transmission
- European and North American versions

Information in this document is subject to change without notice and becomes contractual only after written confirmation by IDENTEC SOLUTIONS. "IDENTEC SOLUTIONS", "Intelligent Long Range", "ILR", "I-LINKS", "i-Q", "i-D", "i-B", "i-CARD", "i-PORT", "Solutions. It's in our name.", "Smarten up your assets." and the stylized "i" are trademarks or registered trademarks of IDENTEC SOLUTIONS, Inc. and/or IDENTEC SOLUTIONS AG.

Copyright © 2010 by IDENTEC SOLUTIONS. All rights reserved. Version 1.8 4/12/2010

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. 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.



# i-Q350T SL TEMPERATURE TAG

IDENTEC SOLUTIONS delivers innovative wireless sensor technology and systems that are helping transform the way business manages industrial processes and safeguards lives.

Committed to developing industry-leading, low power and long-range sensor based solutions, IDENTEC SOLUTIONS' SensorSMART networks have been setting the industry standard since 1999. Currently deployed on every continent throughout the globe in the Marine, Intermodal & Logistics, Oil, Gas & Mining, Construction industries as well as sought out by the world's leading system integrators and governments; IDENTEC SOLUTIONS patented technology is helping to optimize productivity in some of the continent's most challenging situations. Robust, flexible and powerful IDENTEC SOLUTIONS technology delivers when others cannot.

IDENTEC SOLUTIONS is privately held, with its corporate office located in Lustenau, Austria, and North American headquarters in Dallas, Texas, along with service centers in Germany, Australia and Norway. For more information, please visit [www.identecsolutions.com](http://www.identecsolutions.com).

WARNING: Changes or modifications not expressly approved by manufacturer could void the user's authority to operate the equipment. Contents subject to change without notice.

## TECHNICAL SPECIFICATIONS

### Operating Data

Operating frequency ILR-RFID	868 MHz (EU) or 920 MHz (NA), further frequencies on request
Maximum transmission power	0.75mW (EU / NA)
Compatibility	i-PORT M 350, i-CARD CF-350
Standards/Certification	FCC Part 15 (US), ETSI EN 300 220 (EU)

### Communication Data Long-Range RFID (Response Technology)

Multiple tag handling	Up to 2,000 tags in the read zone
Read/write range response mode	Up to 250 m (800 feet), free air*
Data rate response	19.2 to 115.2 kbits/s

### Communication Data Long-Range RFID (Beacon Technology)

Read range broadcast	Up to 500 m (1600 feet) free air*
Operation mode	Transmits marker information in at regular intervals
Repetition rate (ping rate)	0,5 – 300 seconds, adjustable in steps of 0,5 seconds
Data rate broadcast	115.2 kbits/s

\*The communication range depends on the antenna type, the antenna cable runs and the environmental conditions.

### Electrical

Power source	Lithium battery (not replaceable)
Battery monitoring	Yes

### Temperature Logging

Number of samples	10,000
Logging interval	User definable in intervals from 1 to 255 min
Measuring interval	User definable in intervals from 0 s to 255 min
Metering range	-40 °C to +85 °C (-40 °F to +176 °F) with std. internal sensor -80 °C to 100 °C (-112 °F to +212 °F) with std. external sensor Other metering ranges are available on request
Resolution	0.1 °C (0.2 °F)
Accuracy	±0.5 °C (1 °F) from -20 °C up to +50 °C, ±1 °C (2 °F) in the remaining temperature range

### Data

Data retention	> 10 years without power
Write cycles	100,000 writes to a tag
Memory size	10,000 Bytes user definable
Identification code	48 bit fixed ID

### Environmental Conditions

Operating temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Humidity	10 % to 95 % relative humidity @ 30 °C
Shock	50 G, 3 times DIN IEC 68-2-27 Multiple drops to concrete from 1 m (3 ft)
Vibration	3 G, 20 sine wave cycles, 5 Hz to 150 Hz, DIN IEC 68-2-6 5 G, noise 5 Hz to 1000 Hz, 30 minutes, DIN IEC 68-2-64

### Physical

Dimensions	131 mm x 28 mm x 21 mm (5.2 in. x 1.1 in. x 0.85 in.)
Enclosure	Plastic (Qinnacryl)
Weight	50 g (1.75 ounces)
Enclosure rating	IP 65

### US Patent Technology

United States Patent No. 6,563,417 No. 7,053,777

## CONTACT US

**EUROPE**  
+43 5577 87387-0  
[sales@identecsolutions.com](mailto:sales@identecsolutions.com)

**NORTH AMERICA**  
1-866-402-4211 (toll free)  
[sales@identecsolutions.com](mailto:sales@identecsolutions.com)

**HEAD OFFICE**  
IDENTEC SOLUTIONS AG  
Millennium Park 2  
6890 Lustenau  
Austria  
Tel. +43 5577 87387 0  
Fax +49 5577 87387 15

**GERMANY**  
IDENTEC SOLUTIONS  
DEUTSCHLAND GMBH  
Hertzstrasse 10  
69469 Weinheim  
Germany  
Tel.: +49 (0)6201 9957-0  
Fax: +49 (0)6201 9957-99

**USA**  
IDENTEC SOLUTIONS, INC.  
Liberty Plaza II, Suite 375  
5057 Keller Springs Rd,  
Addison, Texas 75001  
USA  
Tel: (972) 535 4144  
Fax: (469) 424-0404

**NORWAY**  
IDENTEC SOLUTIONS AS  
Kartheia 3  
4626 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