

PERSONNEL TAG

RFID-TAG/NA-350

Smart Tag RFID tags can be used to reliably track the location and movement of resources, including personnel and goods for underground mines and tunnels. Tags broadcast their data at a configurable rate to nearby tag readers. This data is then sent to a central computer system which facilitates system control and monitoring through the Smart Tag software.



RFID-TAG/NA-350

Product Specifications

Part Number	RFID-TAG/NA-350
Physical	
Tag Pouch	Nylon
Tag Enclosure	Plastic, IP65
Tag Dimensions (L x W x H)	137 x 37.5 x 26.5 mm (5.4 x 1.48 x 1.04 in)
Weight (nominal)	50 g (1.75 ounces)
Environmental	
Operating Temperature	-40 to +85°C (-40 to +185 °F)
Humidity	10% to 95% relative humidity @ 30°C (86°F)
Electrical	
Power Source	Lithium battery (not replaceable), **Tags with replaceable battery available on request
Battery Monitoring	Yes
RF Characteristics	
Frequency	920 MHz
Maximum Transmit Power	0.75 mW
Read Range Broadcast	Up to 500 m (1640 ft), free air
Data	
Identification Code	48 bit fixed ID
Approvals	
Intrinsic Safety	No
CE Certification	Yes

Installation

Use the following guidelines to ensure proper installation of Smart Tag RFID tags:

- It's advisable to set the tag broadcast rate to accommodate the needs of a faster moving area. However, the rate should also be set conservatively to maximize the tag battery life. The faster the broadcast rate, the shorter the battery lifetime.

- Some estimates of tag battery life are shown below:

Broadcast Rate	Tag Life
1 second	> 3.8 years
3 seconds	> 5.0 years
10 seconds	> 5.6 years

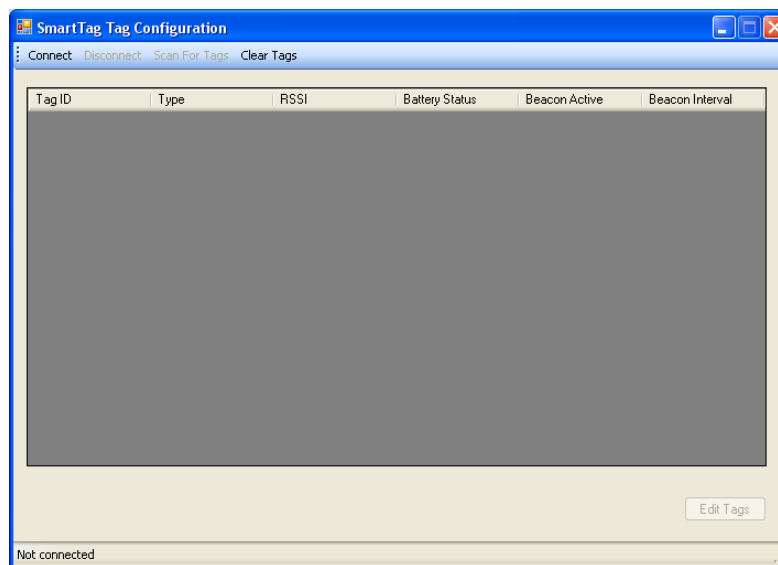
- Tags are shipped in a deactivated state to preserve battery life and therefore need to be configured before use.
- Default tag settings:

Active:	Yes
Broadcast Interval:	0.0 (no broadcast)
Broadcast Message Options:	<i>Not used</i>
User Data length:	<i>Not used</i>
Userdata:	<i>Not used</i>

Tag Activation/Configuration

During tag activation or configuration, the tag reader transmit level should be set to -10 dBm to ensure that transmit power regulations for the United States and Canada are not exceeded.

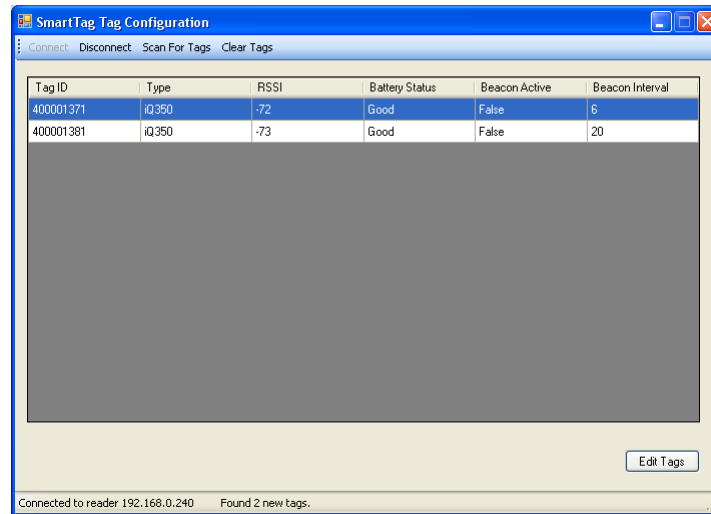
- Open the *Tag Configuration Utility*.



- Click on *Connect*.
- Enter the tag reader *IP address*, the number of *Expected Tags* and set the *Tx Power* to -10 dBm. Click *OK*.



4. Click on *Scan for Tags*.
5. Select the tag(s) you want to configure and click *Edit Tags*.



6. Ensure the tags are *Active* and set to the required *Broadcast Interval(s)*. Save settings. Note that setting the Broadcast Interval to 0.0 s will set the tag to not broadcast at all.

