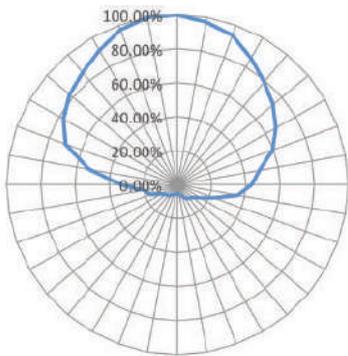# AUTOCLAVABLE ROSWELL

## Technical Specifications

- **RF protocol** EPC global Class 1 Gen 2
- **Frequency** 902-928 MHz (US); 865-868 MHz (EU)
- **IC type** (chip)[1] Alien Higgs-3
- **Chip memory** 96 bits EPC; 64 bits unique TID; 512 bits user memory
- **Read range** fixed[2] Up to 16.40 ft (5 m)
- **Read range** handheld[2] Up to 11.48 ft (3.50 m)
- **Polarization** Linear
- **Radiation pattern on metal**



## Key Features

+ **250°C:** withstand high temperatures

+ **180° readable:** wider read angles

+ **Stainless steel case:** withstand high pressures, compression, chemicals

+ **Backplate:** secure mounting options

+ **IP69K rating:** for autoclaves

## Applications

- **Sterilizable surgical trays**
- **Medical devices**
- **Oil & Gas valve/wellhead management**
- **Food processing plants**
- **Automotive manufacturing**

## Environmental Specifications

### Temperatures
- Operational -40°C to +85°C
- Survival -40°C to +250°C

### Chemicals[3]
- 24h $H_2SO_4$ (10% sulfuric acid)
- 24h $HNO_3$ (10% nitric acid)
- 24h $H_3PO_4$ (20% phosphoric acid)
- 24h $H_2O_2$ (25% hydrogen peroxide)
- 24h NaOH (10% sodium hydroxide)

- **IP rating** IP68, IP69K
- **Compression strength** 1145 psi (7900 kPa)
- **Shock** 3ft (1 m) to concrete/granite

- **Vibration** MIL-STD-810G
- **Warranty** 1 year

[1] The chip data retention is up to 50 years, based on chip operating under general environment conditions.
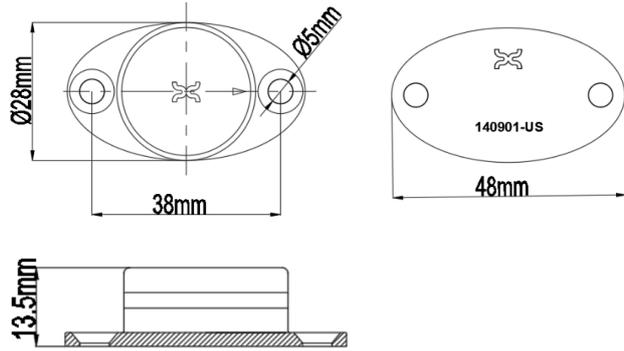[2] Performance based on standard testing methodologies. Performance may vary depending on environmental factors and reader output power.
[3] The chemical resistance is based on the concentration of solutions and application environment. Please contact Xerafy for further details on chemical resistance.

# Physical Specifications

- **Material** Stainless steel, High-performance engineered polymer
- **Dimensions (in)[1]** 1.89 x 1.10 x 0.53
- **Dimensions (mm)[1]** 48 x 28 x 13.50
- **Weight** 1.55 oz (44 g)

## Mounting Systems

- Welding
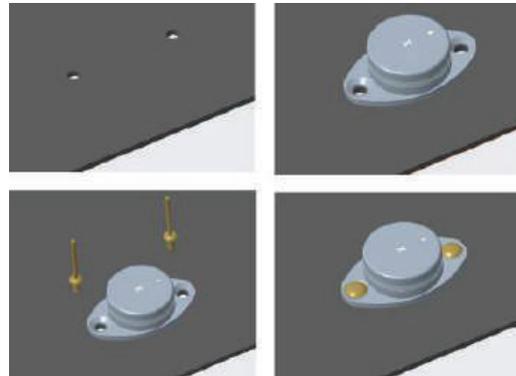- Rivets
- Screws
- Cable ties

## Installation Instructions

1. Position the tag in alignment with the metal surface's length, ensuring that the "X" symbol is parallel to the same direction.
2. Use M4 rivets for attachment:
·Drill two holes (ø 5) in the metal surface, pitch: 38 mm.
· Utilize M4 rivets in conjunction with a rivet gun to securely fasten the tag onto the metal surface.
3. Use M4 screws for attachment:
·Drill two holes (ø 3.20) in the metal surface, pitch: 38 mm.
· Perform a M4 thread tapping procedure.
· Utilize M4 screws to securely attach the tag to the metal surface.

[1] Tolerance: +/- 0.02; +/- 0.50

# Industry Compliance

# Order Information

| Autoclavable Roswell US: X1114-US143-H3 | Autoclavable Roswell EU: X1114-EU143-H3 |
|---|---|

## Customization Options

| Encoding | Printing |
|---|---|
| Laser Marking | ATEX Certified Version |