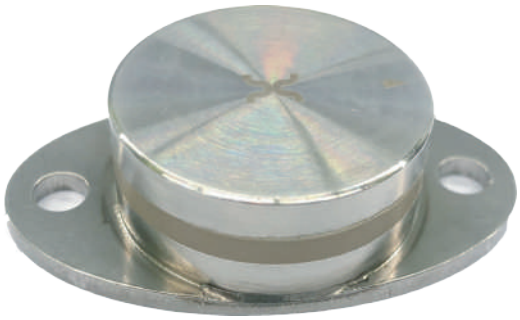
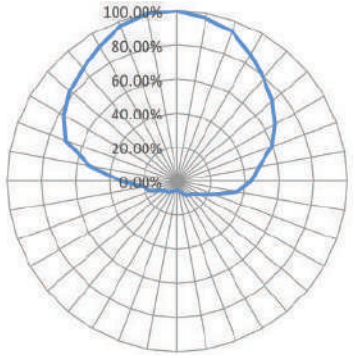


ROSWELL AUTOCLAVABLE

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 9
- **Chip memory** 96 bits EPC; 96 bits TID; 688 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
  -40°F to +185°F
- Survival -40°C to +250°C
  -40°F to +482°F

Chemicals[3]

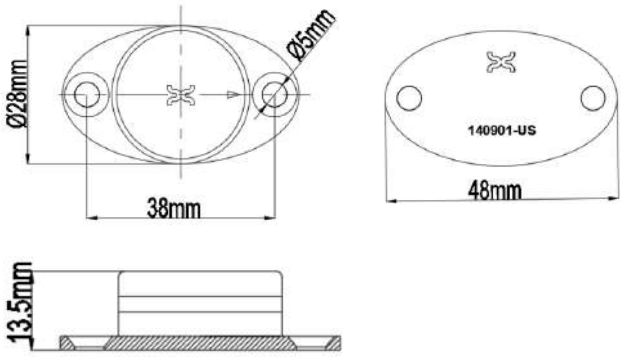
- 24h H_2SO_4 (10% sulfuric acid)
- 24h HNO_3 (10% nitric acid)
- 24h H_3PO_4 (20% phosphoric acid)
- 24h H_2O_2 (25% hydrogen peroxide)
- 24h NaOH (10% sodium hydroxide)

- **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)

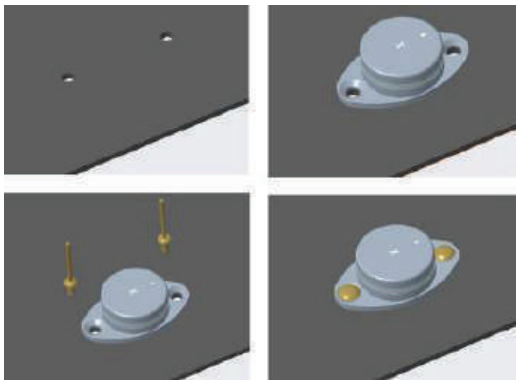


Mounting Systems

- 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

ROSWELL Autoclavable US: X1114-US143-H9	ROSWELL Autoclavable EU: X1114-EU143-H9

Customization Options

Encoding	Printing
Laser Marking	ATEX Certified Version

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