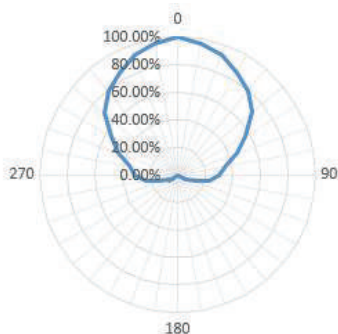




XS WEDGE

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; extensible to 480 bits; 64 bits unique TID; 512 bits user memory
- **Read range fixed**² Up to 3.28 ft (1 m) US; Up to 2.62 ft (0.80 m) EU
- **Read range handheld**² Up to 1.64 ft (0.50 m) US; Up to 1.31 ft (0.40 m) EU
- **Polarization** Linear
- **Radiation pattern in metal**



Key Features

- + **Embeddable:** embedded in metal
- + **250°C:** withstand high temperatures
- + **Small form factor:** fits small asset
- + **Injection molded case:** resistant to liquids, pressure and corrosion

Applications

- Onshore and offshore pipes
- Heavy equipment and tools
- Automotive manufacturing
- Industrial molds

Environmental Specifications

Temperatures



- Operational -40°C to +85°C
- Survival -50°C to +220°C (168 hours)
- Peak 250°C (2 hours)

Chemicals³



- 24h H₂SO₄ (10% sulfuric acid)
- 24h HNO₃ (10% nitric acid)
- 24h H₃PO₄ (20% phosphoric acid)
- 24h H₂O₂ (25% hydrogen peroxide)
- 24h NaOH (10% sodium hydroxide)

- **IP rating** IP68
- **Compression strength** 10,100 psi (70 MPa)
- **Weatherability** UV resistance, sea water
- **Warranty** 1 year

¹ The chip data retention is up to 50 years, based on chip operating under general environment conditions.

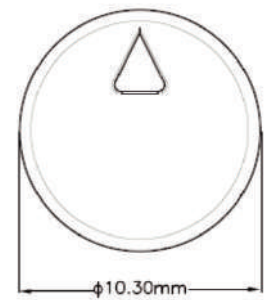
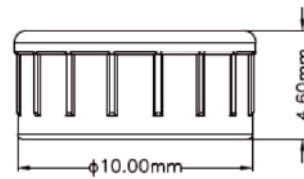
² Embedded in metal read range (2W EPR).

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** Industry grade polymer
- **Dimensions (in)**¹ \varnothing 0.41 x 0.18
- **Dimensions (mm)**¹ \varnothing 10.30x 4.60
- **Weight** 0.28 oz (8 g)



Mounting Systems

- Press fit, embedded

Installation Instructions

Instructions for optimal performances:

1. Preparation - For a spherical or curved surface, first make a plane on the surface (Length \geq 12 mm * Width \geq 12 mm).
2. Drilling - Make a flat bottom groove on the metal surface 10 mm * 5 mm).
3. Position - Put $\frac{1}{3}$ of the XS Dot Wedge into the groove and adjust the tag's direction according to the object size. The Δ mark on the tag indicates the recommended installation direction to ensures the tag's polarization direction is parallel with the length of the metal asset. Read range performance will decrease when the polarization direction forms an angle with the length direction.
4. Insertion - Drive the remaining $\frac{2}{3}$ of the tag into the groove, using a hammer or similar tool.



¹ Tolerance: +/- 0.004; +/- 0.100

Industry Compliance



Order Information

XS Wedge US: X4202-US100-H3

XS Wedge EU: X4202-EU100-H3

Customization Options

Encoding

ATEX Certified Version

Laser Marking

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