

# Xplorer



The Xplorer tag has been validated by tests simulating simultaneous high temperature, high pressure stresses as well as in an actual live well site for survivability and performance under the extreme conditions of pressure, vibration, temperature and chemicals of a well.

It's designed for quick "snap in" attachment that is secure and will not become loose during the downhole operation.



Withstands high pressure and vibration



Quick snap in attachment



Unique RF design



IP68, IP69K



Hi-Temp and chemicals resistance



## Performance Characteristics

Read range (handheld) <sup>1</sup>	Up to 3.28 ft (1.0 m)
Read range (fixed) <sup>1</sup>	Up to 4.92 ft (1.5 m)
Polarization	Linear
Mounting system	Snap in, embedded

<sup>1</sup>. Performance based on standard testing methodologies. Performance may vary depending on environmental factors and reader output power.

## Functional Specifications

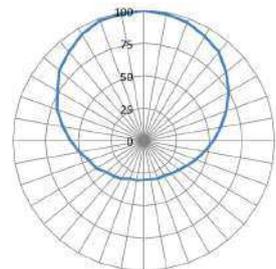
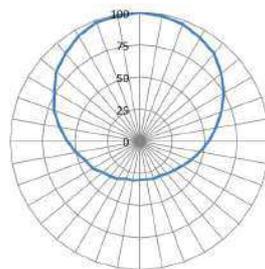
RF protocol	EPC global Class 1 Gen2
Frequency	902-928 (US) ; 865-868 (EU)
IC type (chip) <sup>1</sup>	Alien Higgs-3
Memory	96-EPC bits, 64-bit unique TID, 512-bit user memory
Material	Stainless steel 304

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

## Radiation Pattern

Horizontal

Vertical



- Onshore and Offshore Oil Pipes Management
- Downhole Assets Tracking

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### Environmental Specifications

Operational temperature	-40°C to +85°C
Survival temperature	-50°C to +250°C
Chemical resistance	Withstands drilling fluids and hydraulic fluids including hydrogen sulphide.
IP rating	IP68, IP69K
Compression strength	30,000 psi (206 MPa)
Shock (drop)	3 ft (1 m) to concrete/granite
Vibration	MIL-STD-810G

### Industry Compliance

RoHS	EU Directive 2011/65/EU
CE	Yes
ATEX/IECEX	Compliant
Warranty	1 year

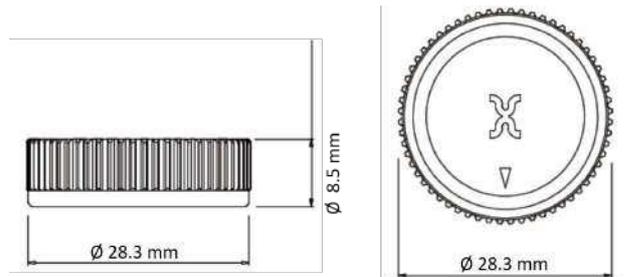
### Order Information

X1115-US101-H3	Xplorer US
X1115-EU101-H3	Xplorer EU
Optional service	Encoding / Printing / Laser etching



### Product Dimensions and Weight

Dimensions (in)	ø 1.11 x 0.33
Tolerance	+/- 0.004
Dimensions (mm)	ø 28.3 x 8.5
Tolerance	+/- 0.1
Weight	0.89 oz (25.4 g)



### Installation Instructions

1. Create a flat surface sized to the recommended dimensions on the connect part of the drill pipe by using the milling machine.
2. Chamfer the length edge of the flat surface. This could help to reduce the wear during pipe drilling.
3. Drill a blind hole in the center of the flat surface at the recommended diameter and depth by drilling machine.
4. Clean the hole.
5. Place the Xplorer tag onto the asset near the hole with the side facing up. For maximum reading range, the mark on Xplorer surface need to face to longer free metal surface side
6. Use a press, such as an arbor press or a drill-press, and chuck the driver tool in the press
7. Visually align the asset and nested Xplorer with the driver tool.
8. Use the press to install the Xplorer until it is 0.5 mm below the pipe surface (Step not shown).

#### About Xerafy

Xerafy designs and manufactures the world's toughest RFID tags to power Industrial IoT applications in Aerospace, Oil & Gas, Automotive, Healthcare and Manufacturing.