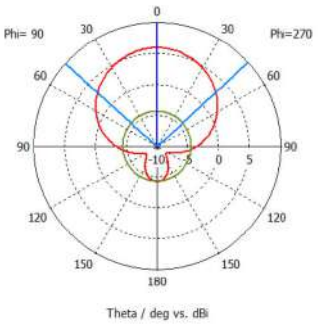
XPLORER SCREW

Technical Specifications

- **RF protocol** EPC global Class 1 Gen 2
- **Frequency** 902-928 MHz (US); 865-868 MHz (EU)
- **IC type** (chip)[1] NXP UCODE 9
- **Chip memory** 96 bits EPC; 96 bits TID
- **Write cycles** 100,000 times
- **Data retention** 20 years
- **Read range** fixed[2] Up to 16.40 ft (5 m)
- **Read range** handheld[2] Up to 9.84 ft (3 m)
- **Polarization** Linear
- **Radiation pattern in metal**



Key Features

+ **Embeddable:** designed to be embedded in metal
+ **HT or HP:** withstand up to 250°C, or 22,000 psi pressure
+ **Screw-in:** easy installation and replacement
+ **5m:** superior read range when embedded in metal
+ **IP69K:** waterproof and dust-tight

Applications

- **Workover rigs**
- **OCTG tubulars**
- **LNG**
- **Offshore wind farms**
- **Dredging pipes**
- **Seabed/deepwater equipment**
- **Manufacturing autoclave**
- **Construction and civil engineering**

Environmental Specifications

Temperatures

- Operational -40°C to +85°C
  -40°F to +185°F
- Survival -40°C to +250°C (100 hours)
  -40°F to +482°F

Chemicals[3]

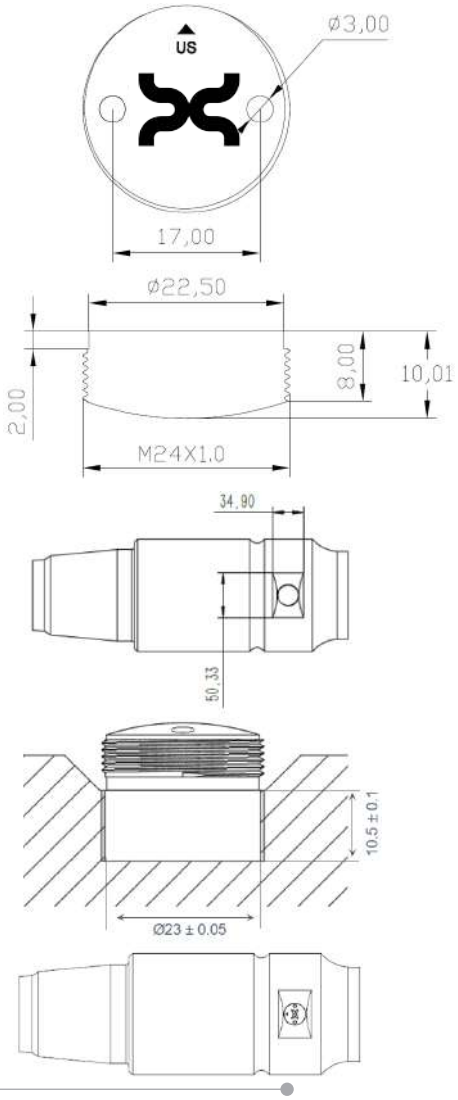
- 168h H_2SO_4 (10% sulfuric acid)
- 168h NaOH (10% sodium hydroxide)

- **IP rating** IP68, IP69K
- **Liquid Pressure** 22,000 psi (150 MPa)
- **Shock** 3 ft (1 m) to concrete/granite
- **Vibration** MIL-STD-810G
- **Warranty** 1 year

[1] The chip data retention is up to 20 years, based on chip operating under general environment conditions.
[2] In metal. 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** High-performance engineered polymer
- **Dimensions (in)**[1] ø 0.94 x 0.39, hole: ø 0.12
- **Dimensions (mm)**[1] ø 24 x 10.01, hole: ø 3
- **Weight** 0.23 oz (6.60 g)



Mounting Systems

- Screw in, embedded

Installation Instructions

1. Create a flat platform on asset metal surface, The size is around 50mm*35mm.
2. Drill a ø23mm±0.05 width hole in the center of flat platform. The depth is 10.5mm ±0.1mm. Suggest to use the drill bit with 23mm diameter.
3. Use a thread tapping wrench to perform a M24 x 1 mm thread tapping procedure.
4. Put the tag in the hole and use an adjustable 2-hole wrench to screw the tag in, make the top of tag flush with the flat platform.
5. Adjust the tag's direction, keep the ▵ mark direction on the tag parallel with the length of the metal asset , in order to get the best read range performance.

[1] Tolerance: +/- 0.004; +/- 0.100

Industry Compliance

Order Information

XPLORER Screw US: X1116-US120-U9	XPLORER Screw EU: X1116-EU120-U9

Customization Options

Encoding	Laser Marking
ATEX Certified Version	