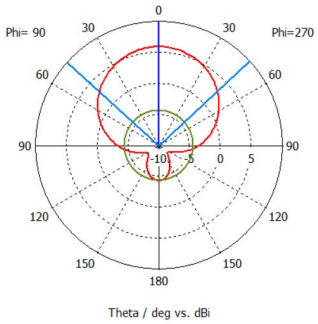
XPLORER SCREW

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
- **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 220°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
- Survival -40°C to +220°C

Chemicals[3]

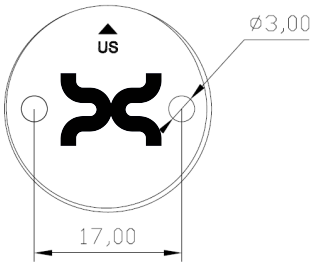
- 168h H_2SO_4 (10% sulfuric acid)
- 168h NaOH (10% sodium hydroxide)

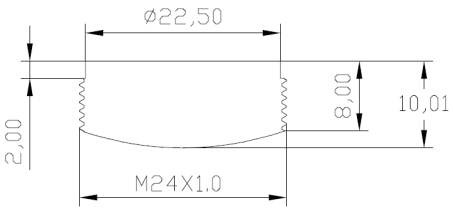
- **IP rating** IP68, IP69K
- **Liquid Pressure** 22,000 psi (150 MPa)
- **Shock** 3 ft (1 m) to concrete/granite
- **Vibration** MIL-STD-810G
- **Warranty** 1 year

[1] The chip data retention is up to 50 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)



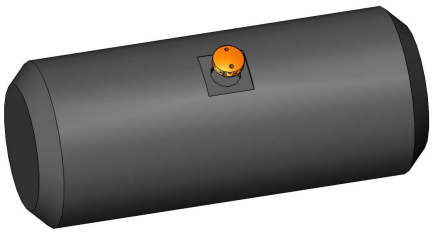


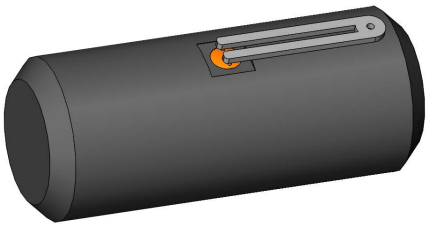
Mounting Systems

- Screw in, embedded

Installation Instructions

1. Drill a M24 hole in the asset surface. The hole size should be controlled in ø 21 mm × 8 mm ± 0.30 mm. Suggest to use the drill bit with 21 mm diameter.
2. Use a thread tapping wrench to perform a M24 x 1 mm thread tapping procedure.
3. Put the tag in the hole and use an adjustable face spanner wrench to screw the tag in.
4. Adjust the tag's direction according to the object size. The ▵ mark on the tag indicates the recommended installation direction to ensure the tag's polarization direction is 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	