

Armor 120

The Armor 120 UHF RFID tag are designed for harsh outdoor and industrial environments where assets are exposed to high temperature, high pressure and chemical solutions. The Armor 120 is IP69K rated and it can resist and work well in the harsh environment of Seawater, Engine oil, Petroleum, Salt mist and Gasoline, etc.

APPLICATIONS

- Industrial Assets
- Industrial Washing
- Oil-gas assets Tracking

FEATURES

- Performs under repeated exposure to caustic fluids
- Survive high temperatures up to 248°F (120°C)
- Anti-impact, vibration resist, IP69K rated
- Inserted holes for reliable attachment



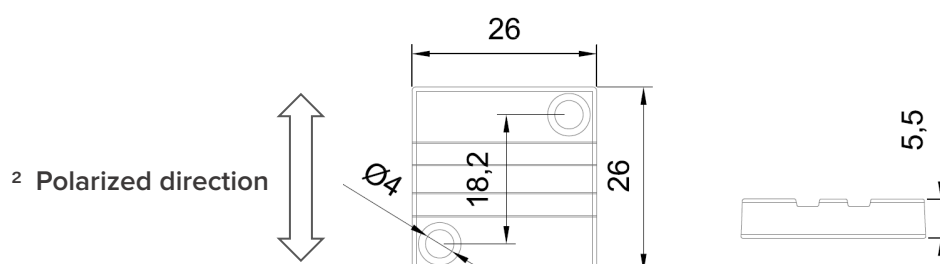
RF Specifications

RF protocol	ISO18000-6C, EPC Class 1 Gen2
Operating frequency	865-868MHz (EU); 902-928MHz (US)
Chip type	Higgs 3
Memory configuration	96-Bits EPC (extensible to 480b) 512-Bits User 64-Bits Unique TID
Data retention	50 years at operation temperature
Read range on metal (2W ERP) ¹	Up to 150 CM
Read range off metal (2W ERP) ¹	Up to 100 CM
Polarization	Linear ²

¹Read ranges are achieved by lab testing methodology, the read range will vary with output power of reader and applications.

Physical Specifications

Material	High performance Engineering polymer
Color	Black
Dimensions	26 x 26 x 5.5mm (±0.5mm)
Weight	6.6 g



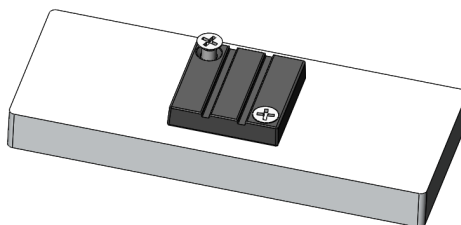
Operational and Environmental Specifications

Operational temperature	-40°F (-40°C) to +185°F (+85°C)
Survivability temperature	-40°F (-40°C) to +248°F (+120°C)
Operational humidity	5% to 95% non-condensing
IP Rating	IP69K
Shock and Vibration	MIL STD 810-G
Drop spec	Multiple drops to concrete: 4 ft./1.2 m across the operating temperature range
Compression strength	Up to 12 MPa (1740 psi)
Chemical resistance ³ :	No significant changes after ³ :
• Salt water (15% salinity) exposure • Sodium Hydroxide (10% pH 14) exposure • Sulfuric acid (10%, pH 2) exposure • Engine oil exposure • Isopropyl exposure • alcohol Industrial cleaner exposure • Epoxy resin coolant exposure • Industrial rust lubricant exposure • Acetone exposure • Gasoline exposure • Diesel fuel exposure • Soap solution (30%) exposure • Carboxylic acids exposure	• 168 hours • 168 hours • 168 hours • 168 hours • 48 hours • 48 hours • 48 hours • 48 hours • 48 hours • 48 hours • 48 hours • 48 hours

³The chemical resistance is based on the concentration of solutions and application environment, please contact us for further details on chemical.

Mounting System

Mechanical fixings	• Screws (M3) • Cable tie
Adhesive fixings	• VHB Adhesive • Glue



Order Information

WJT-C0810-1	Armor 120 EU
WJT-C0810-2	Armor 120 US

Others

Options	Laser engraving, Per-Encoding, Printing
Warranty	1 year

The performance of the product should always be tested in the actual application conditions. Our recommendations are based on our most current knowledge and experience and the pictures and illustrations presented in this document are for illustration purposes only. As our products are used in conditions beyond our control, we cannot assume any liability for damage caused through their use.

