



# Epoxy Tag



## MICRO THIN RFID TAGS THAT WITHSTAND EXTREME ENVIRONMENTS

- **Durable** - resists moisture, oils, petroleum; tolerates mechanical vibration and shock
- **Thermally stable** - withstands exposure to temperatures from -40° F to 360° F (-40° to 160° C)
- **Surface printable** - enables tags scannable by both RFID and visual ID readers

HID Global Epoxy Tag RFID transponders are constructed for optimal performance under harsh conditions.

Epoxy housings protect advanced integrated chips, enabling the use of RFID technology to accelerate logistics speed while improving data accuracy in a broad spectrum of rugged industrial applications.

Epoxy Tag units are resistant to fuels, mineral oils, petroleum and salt mist. They repel moisture - even in high temperature, high pressure washes.

Unrelenting performance despite temperature fluctuations allows Epoxy Tag transponders to adapt to demanding applications. These tags can tolerate repeated autoclaving in medical applications, and plastic injection molding processes for permanent embedding into industrial components, equipment or containers.

Each micro thin Epoxy Tag device has a smooth surface, which may be imprinted with customized visual codes or artwork.

Epoxy Tag transponders are available in a variety of shapes and sizes, and may be adhered with glue, secured with screws, or embedded in a custom housing, depending on the application.

The Epoxy Tag Keyfob features a unique chip that optimizes NFC program security, utility, and ease-of-implementation when deployed with HID Trusted Tag® Services, a cloud-based authentication platform that adds a non-replicable identity to each interaction.

In addition, HID Global can create a custom Epoxy Tag solution to fit any application requirements for chip type, dimensions or programming.

**TECHNOLOGY HIGHLIGHTS:**

- Operating frequencies
  - LF 125 kHz
  - HF 13.56 MHz (NFC)
  - RAIN® UHF 865-956 MHz worldwide
- Withstands peak temperatures up to 360° F (160° C)
- Large, read-write memory
- Chemical and moisture resistant
- Printable surface

### APPLICATION AREAS:

- **Automation and manufacturing**
  - Item/box tracking through production process
  - Electronic tool identification
- **Medical and health**
  - Sterilization validation
  - Equipment identification
- **Waste management/RTI**
  - Usage-based invoicing
  - Recycling incentive programs
  - Returnable transport items
  - Asset tracking and logistics
- **Marketing**
  - Loyalty programs
  - Promotions
  - Stored-value
  - Proof of presence

## SPECIFICATIONS



HID Global can create a custom tag solution to fit your application requirements for chip type, dimensions, programming and materials.

	Epoxy Tag			
	LF Disc		HF	UHF
	20 mm	30 mm	Keyfob	
<b>Base Model Number</b>	624112	601143	6D6140-101	698970
<b>ELECTRONIC</b>				
<b>Operating Frequency</b>	125 kHz		13.56 MHz	865-956 MHz (Worldwide)
<b>Chip Type</b>	Hitag S	Unique	HID Trusted Tag*	Higgs 3
<b>Memory</b>	2048 bit EEPROM	64 bit read-only	8 KB	96 bit EPC + 64 bit TID + 512 bit user memory
<b>Anti-collision</b>	Yes			Yes
<b>Reading Distance</b>	Dependent upon reader, environment and application		Proximity (NFC Tap)	Up to 26.3 ft (8 m)
<b>PHYSICAL</b>				
<b>Dimensions</b>	Ø 0.79 x 0.04 in (Ø 20 x 1 mm)	Ø 1.18 x 0.04 in (Ø 30 x 1 mm)	1.2 x 1.8 x 0.06 in (30 x 45 x 1.6 mm)	3.3 x 1.0 x 0.04 in (83 x 25 x 1 mm)
<b>Mounting Method</b>	Glue, screw-on, or encapsulate			
<b>Fixation Hole Size</b>	None	Ø 0.13 in (Ø 3.2 mm)	Ø 0.2 in (Ø 5 mm)	Ø 0.12 in (Ø 3.0 mm)
<b>Affixes To</b>	Glass, plastic, wood			
<b>Housing Material</b>	Epoxy			
<b>Color</b>	Black			
<b>CHEMICAL AND MECHANICAL</b>				
<b>Water</b>	IP68, IP69K, 176° F (80° C), 100 bar x 30 sec			
<b>Withstands Exposure To</b>	Fuel B, mineral oil, petroleum, salt mist, vegetable oil			
<b>Environmental Test Conditions</b>	68° F (20° C), 100 h			
<b>Vibration</b>	IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]			
<b>Shock</b>	IEC 68.2.29 [40 g, 18 ms, 6 axis, 2000 times]			
<b>THERMAL</b>				
<b>Storage</b>	-40° to +185° F (-40° to +85° C), 1000 h			
<b>Operating</b>	-13° to +185° F (-25° to +85° C)	-40° to +185° F (-40° to +85° C)		
<b>Shock/Fatigue</b>	-40° to +212° F (-40° to +100° C), 100 x 5 min with 30 sec transition			-40° to +284° F (-40° to +140° C), 100 x 5 min with 30 sec transition
<b>Peak</b>	284° F (140° C), 24 h			320° F (160° C), 24 h
<b>OTHER</b>				
<b>Standards</b>			ISO 14443A - NFC Tag Type 4	ISO/IEC 18000-6C; EPC Global Class 1 Gen 2
<b>Options</b>	Custom printing or laser engraving; custom sizes; self-adhesive; or alternative chips e.g. MIFARE, NTAG			
<b>Box Size</b>	1,000 pcs.	500 pcs.	250 pcs.	1,000 pcs.
<b>Warranty</b>	2 Years			

\* Encoded by HID with your unique Trusted Tag® Services identity.



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