

FIT Ceramic Tag

Miniature tags that can be mounted or embedded discreetly onto tools, equipment, medical instruments and more.



HID Global FIT Ceramic Tag passive contactless transponders easily integrate into RFID applications requiring discreet placement of small, featherweight tags that deliver sustainable performance.

FIT Ceramic units are optimized for placement on metal assets, such as tools, weaponry and surgical instrumentation. The hard shells encasing these tiny UHF transponders shield them from exposure to autoclave sterilization and demanding industrial environments.

Options in this range boast the highest size to performance ratio in the industry and are some of the smallest, lowest profile RFID tags on the market. The range offers the flexibility of on/off metal performance and the ability to embed at the point of manufacture while surviving cycling applications at temperatures of up to 235°C (455°F).

With a read range of up to 13.1 ft (4m), these tags deliver an excellent size / performance ratio when placed on metallic objects.

The FIT ceramic tags are typically embedded or affixed with industrial glue or Epoxy glob top. Alternative tag options include versions with sticker (up to 85°C) or ATEX/IECEX, / C1D1 certification.

These tags are an ideal, cost-effective solution for consistency during the rigors of auto and other types of manufacturing, specifically through paint shops and processes.

A range of tags that allow you to identify and track individual vehicles, tools or small items of equipment through a variety of manufacturing processes from assembly to painting, welding or molding and in a range of industries including healthcare or even covert surveillance.

For the special case of long-thin metallic objects like surgical instruments, the ~~the~~ sleek (2x2x12, 15 or 27mm) Sentry Instrument Tags may be an alternative option to suit your needs. See separate datasheet for the HID Sentry Family.



KEY BENEFITS

- **Small footprints** – Embeddable in space-restricted applications.
- **Exceptional durability** – Withstand physical stress, are dust tight, and resistant to water, chemicals, acids and temperature extremes.
- **Versatility** – May be customized to fit special application requirements.

TECHNOLOGY HIGHLIGHTS:

- Resistant to chemicals, shock and vibration
- Tiny footprints
- Heat resistant
- Waterproof

APPLICATION AREAS:

Asset tracking and logistics

- Tool or weapon inventory and management
- Cable identification

Medical and health

- Surgical instrumentation tracking
- Medical equipment status and utilization

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Base Model Number	FIT Tag Ceramic	
	220HT	400HT
		
	CP16350 (EU) CP16351 (US)	CP16360 (EU) CP16361 (US)
ELECTRONIC		
Operating Frequency	865-868 MHz (ETSI) / 902-928 MHz (FCC)	
Chip Type	Monza R6-P	
Memory	28/96 bit EPC, 32/64 bit UM	
Anti-Collision	Yes	
Reading Distance	7.2 ft (2.2 m)	13.1 ft (4 m)
PHYSICAL		
Dimensions	0.3 × 0.3 × 0.1 in (7.8 × 6.8 × 2.7 mm)	0.5 × 0.3 × 0.1 in (13.1 × 7.8 × 3.1 mm)
Mounting Method	Adhesive or enclosure	
Affixes to	Metal surfaces	
Housing Material	Ceramic painted	
Color	Black	
Weight	0.02 oz (0.6 g)	0.05 oz (1.5 g)
CHEMICAL AND MECHANICAL RESISTANCE		
Water	IP68, 68° F (20° C), 1 m × 24 h	
Withstands Exposure To	Mineral oil, 5% caustic soda, 10% salt water, vegetable oil	
Environmental Test Conditions	68° F (20° C), 100 h	
Vibration & Shock	MIL STD 810-G	
THERMAL		
Storage	-4° to +185° F (-20° to +85° C)	
Operating	-4° to +185° F (-20° to +85° C)	
Shock/Fatigue	-40° to +185° F (-40° to +85° C), 100 x 5 min with 30 sec transition	
Peak Temperature	437° F (225° C), 700 h	
OTHER		
Standards	EPC C1G1, ISO 18000-6C, RAIN	
Options	Self-adhesive sticker (for placement only in applications exceeding +85°C), ATEX/IECEx, C1D1	
Quantity Per Box	11,200 pcs	8,400 pcs
Warranty	1 year	



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