



## Volcano Tag™



### DURABLE LOW FREQUENCY RFID TAGS THAT PERFORM IN HIGH TEMPERATURE ENVIRONMENTS

- **High heat tolerance** – during storage, industrial processing, transportation and outdoor use
- **Durable housing** – withstands rigors of chemical and mechanical exposure
- **Versatile** – screw-mounts securely anywhere without compromising performance: glass, metal, plastic, or wood

Volcano Tag™ passive contactless radio frequency identification (RFID) transponders are built for reliable performance in high-heat conditions. For RFID applications where tags must perform before, amidst or following extreme heat exposure, Volcano Tag discs withstand peak temperatures up to 392° F (200° C).

Volcano Tag housings are composed of field-proven, temperature-stable polyphthalamide (PPA). This thermoplastic shell holds its shape despite high or fluctuating temperatures, protecting the electronics within. Exceptional toughness, chemical resistance and abrasion resistance assure consistent communications with RFID readers, and reliable performance in automation and manufacturing applications.

Low frequency (LF) Volcano Tag discs perform well affixed to virtually any surface – glass, metal, plastic or wood. They offer reliable, cost-effective tagging for near-proximity reader applications, with available data storage from a 64-bit user ID up to 2048-bit read-write capability.

For additional disc-tag options, the HID Global IN Tag™ and Poly Tag families also include heavy-duty tags in low frequency, high frequency and UHF configurations. For lighter-duty applications, consider HID Epoxy Disc or World Tag™ RFID tags.

#### TECHNOLOGY HIGHLIGHTS:

- Peak temperature up to 392° F (200° C)
- Operating frequency 125 kHz
- Up to 2048 EEPROM
- Waterproof
- Mount-ready, via central screw hole

### APPLICATION AREAS:

- **Automation and manufacturing**
  - High temperature production processes
  - Machinery



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

### SPECIFICATIONS

| Volcano Tag™                   |   |                 |                |                  |
|--------------------------------|---|-----------------|----------------|------------------|
| 231                            |   |                 |                |                  |
| <b>Base Model Number</b>       | 623170  | 624170          | 612170         | 601170           |
| <b>ELECTRONIC</b>              |   |                 |                |                  |
| <b>Operating Frequency</b>     | 125 kHz   |                 |                |                  |
| <b>Chip Type</b>               | Hitag S   |                 | Q5             | Unique           |
| <b>Memory</b>                  | 256 bit EEPROM  | 2048 bit EEPROM | 264 bit EEPROM | 64 bit read-only |
| <b>Anti-Collision</b>          | Yes   |                 |                |                  |
| <b>Reading Distance</b>        | Dependent upon reader, environment and application                  |                 |                |                  |
| <b>PHYSICAL</b>                |   |                 |                |                  |
| <b>Dimensions</b>              | Ø 1.02 x 0.16 in (Ø 26 x 4 mm)                                      |                 |                |                  |
| <b>Mounting Method</b>         | Screw   |                 |                |                  |
| <b>Fixation Hole Size</b>      | Ø 0.18 in (4.5 mm)  |                 |                |                  |
| <b>Affixes To</b>              | Glass, metal, plastic, wood   |                 |                |                  |
| <b>Housing Material</b>        | PPA   |                 |                |                  |
| <b>Color</b>                   | Black   |                 |                |                  |
| <b>Weight</b>                  | 0.12 oz (3.5 g)   |                 |                |                  |
| <b>CHEMICAL AND MECHANICAL</b> |   |                 |                |                  |
| <b>Water</b>                   | IP68, 68° F (20° C), 3.3 ft (1 m) x 24 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>                 | -13° to +284° F (-25° to +140° C), 1000 h                           |                 |                |                  |
| <b>Operating</b>               | -13° to +185° F (-25° to +85° C)                                    |                 |                |                  |
| <b>Shock/Fatigue</b>           | 68° to +320° F (20° to +160° C), 100 x 5 min with 20 sec transition |                 |                |                  |
| <b>Peak</b>                    | +320° F (+160° C) 100 h; 392° F (+200° C) 10 min                    |                 |                |                  |
| <b>OTHER</b>                   |   |                 |                |                  |
| <b>Warranty</b>                | 2 Years   |                 |                |                  |

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