Robust, Built-In Protection of Medical RFID Tags

Compliance with the machine-readable requirement of the U.S. FDA’s Unique Device Identifier (UDI) Final Rule can be achieved using Parker’s proven, patented, techniques for embedding RFID tags into molded components during their fabrication.

Using embedded RFID tags for auto identification and data capture (AIDC) offers numerous additional opportunities for product enhancement and/or differentiation, including high level anti-counterfeiting characteristics, damage/tamper resistance and automatic parameter settings.

Product Features:

- Molded-in RFID tags have no labels, adhesives or plugs to fail
- Embedded tags are totally encapsulated in, and fully protected by, the device’s own material
- Completely tamper-resistant identification
- Extremely counterfeit resistant
- Covert in opaque materials
- Embedded tags match the device’s resistance to autoclave and gamma sterilization cycles
- No contaminant-harboring seams or manufacturing marks
- Equipment can automatically recognize components with embedded tags
- On-board tracking of device life cycles
- Available now for embedding into your Class I, II or III devices
Patented Technology for Embedded RFID Tags

Parker Hannifin first embedded RFID tags into its products to stem the counterfeiting of its mission-critical elastomeric O-rings.

Parker has now extended this technology into a variety of shapes and materials, covering many of the elastomers and thermoplastics commonly used in medical devices, including but not limited to:

**Thermoset Elastomers**
- Butyl Rubber
- EPDM
- FFKM
- FKM
- Polyisoprene
- Silicone

**Thermoplastics and Thermoplastic Elastomers (TPEs)**
- ABS
- Polycarbonate
- Polyethylene
- Polypropylene
- PVC
- TPEs and TPU (Thermoplastic Elastomers and Urethanes)

Using proprietary, patented and patent-pending techniques, Parker can embed a variety of RFID tags into a wide range of medical device component configurations.

Parker has been particularly successful integrating RFID tags within thin walls or space-limited molded polymer components, requiring only very small offsets from the part's outer surfaces.

**Why Parker?**

Parker’s Medical Systems Division, part of the Parker Engineered Materials Group, can help you fast track your FDA UDI compliance for molded polymer medical devices:

- **Leverage Parker’s patented polymer fabrication technology for embedding RFID tags directly into your devices’ plastic materials.**
- **Quickly re-engineer existing molded polymer components to include built-in RFID UDI technology.**
- **Jump start new product development by working directly with Parker Medical Systems Division — from device concept to high-volume component production.**
- **Ensure both polymer and RFID performance as you investigate new or modified thermoset elastomers and thermoplastics for your devices.**
- **Improve your medical device lifecycle management: Achieve UDI compliance while offering expanded data utilization opportunities for your planning, production and distribution, as well as for your healthcare customers’ real-time tracking, locating and inventorying of your medical devices.**

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