

## Micro-Sensys GmbH – Applying RFID for monitoring of medical replacement parts and disposables

As a result of demographic change, the need for high-quality solutions for medical technology is growing. At first glance inconspicuous small components offer a clear added value. For this reason, RFID solutions from the medical and pharmaceutical industry have become indispensable. How RFID products manufactured, many know, how to develop correctly and functionally, we know.

Thanks to years of experience results a solid expertise in developing a low risk technology. As a medium-sized company we can approach and react flexibly and quickly to customers' specific requirements. The process support by Micro-Sensys is strongly oriented towards result and end-product.

A brief overview of the benefits in which the application with the appropriate RFID system solution from Micro-Sensys has already achieved, will be summarized as follow:

### 1. Minimizing Risk and Data Management

Through contactless communication between the RFID reader modules which built into the medical devices and the transponder on the additional accessories, the RFID has proven to be a very reliable technology for contactless, unambiguous detection and data transmission. This technology is characterized i.a. by the following advantages over other identification technology:

- Contactless, bidirectional data transmission
- Possible data communication without visual contact
- Read and write any data in data memory of the transponder
- Possibility of data encryption, and cryptographically
- Hermetic encapsulation in plastic housing allows the use of transponders even in harsh environmental conditions
- Cost-efficient Transponder availability

So only successfully identified devices can be connected to each other (such as Plugs, tubing, and etc.) which can minimize the human error rate. Through integrated space available, the unit data as well as the latest data or the application time or life duration of the transponders will be stored. Automatic generated reports can provide more information about which accessories that require to be repaired or worn.

### 2. Brand Protection and Quality Guarantee with RFID Technology

The approval of a medical device is very important so that the components of the medical devices can also be clearly recognized as such and their present condition can be evaluated properly. It must be ensured that the component actually belongs to the approved medical device and not from another manufacturer. This requirement is from the perspective of risk management particularly crucial for the components of the medical device which may come non-invasively or invasively in contact with the patient or the objective for even using this treatment part.

The benefits of using RFID technology in the medical and pharmaceutical sector are immense: risk reduction, enormous time savings, cost reduction through optimized processes and improvements in quality management.

### RFID-Application: microsensys – RFID in motion!

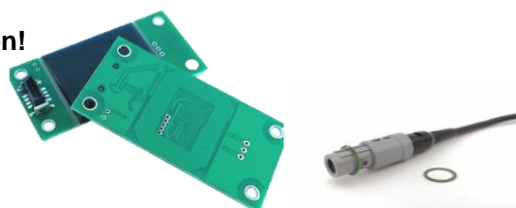


Image: RFID Module & RFID TAG for Plug Identification