S-Type Spear NFC TECH

Introduction

DSI Micro Matic recently launched the NFC TAG integrated into the DSI S-Type Spear as a possible solution to order. This will help breweries to track & trace kegs by reading the Unique ID frequently and start to build the history and cycles. Further the manufacturing date of the gasket is written to the TAG so that preventive maintenance is given. And the remaining free storage can be used for customized information as an open source of technology.

Use case



Precise sorting by life-time for refurbish of gaskets possible

Possibility to read in

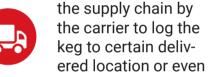
write it to the TAG



Separation of kegs acc. to beverage type possible



The cleaning can be improved by knowing the type of beer from before as well as the cycling time

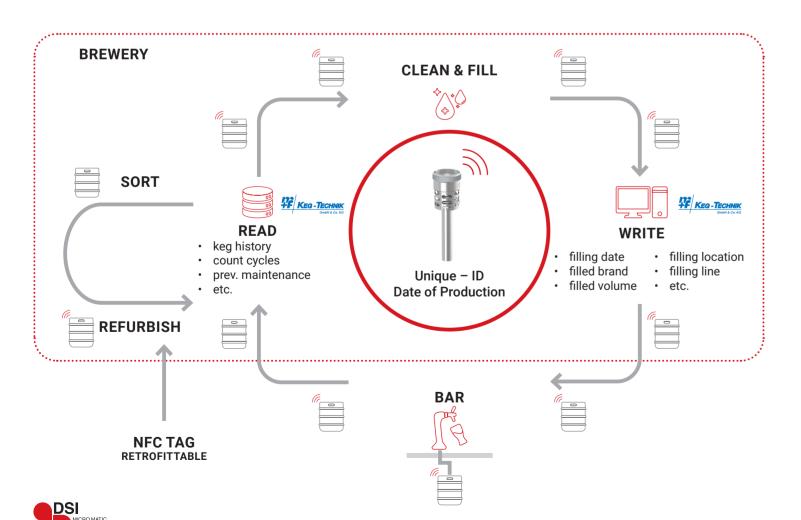




Customer can read information like recommended temperature, CO2-level, BBD, etc.



Cyle and movement profile of a keg can be created in the brewery data base



Views



One piece design:

Technology and data

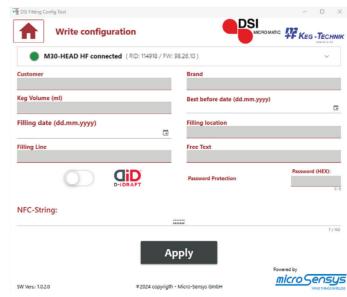
MEANING	CODE (EXAMPLE)
ISO standard:	15693
Frequency:	13.56 MHz
Memory Size:	160 bytes
Security	Password possible to active

Fix data:

- UID (unique identity document)= identification number
- production date of spear/gasket from DSI

Flex data: e.g.

- Brewery
- Brand
- Keg volume
- Filling date
- I lilling date
- Best before date
- Filling line
- Refurbish period
- WeblinksCO₂ level
- etc.
- Filling location



Explosion

Tech info

Material:

- Cover: PA 6 + 50% glass fibre
- Resin: Epoxy, white

Conformity:

- Cover: EU 1935/2004 + FDA 21CFR
- Resin: EU 1935/2004

Resistance:

- Pressure: + 20 bar
- Temp: + 135°C short cycle steaming
- Chemics: ~2% @ 80°C → Caustic soda, phosphoric acid, sulphuric acid

Lifetime testing (from Lab):

- No deformation of the cover: 5 bar @ 60°C
- 10 years of temperature shock cycling (+135°C Steam vs. Cold Water) = no crack of bonding and NFC TAG working



Devices

If the NFC tag is read and written in a filling or cleaning line, the system is supplied by:



The read and write unit is then the machine sensor you see in the picture. It is connected to the machine interface via USB or RS-232 interface. This read and write unit is compatible with the read and write software.



The POCKETwork is a solution for the beginning or small scale breweries.

The same software that is compatible with the machine sensor can also be used here. The data string is simply written via USB to the POCKETwork and then transferred to the tag with the push of the button.

With your mobile device you can read and write the tag as well. But because there are different NFC antennas integrated in the mobile devices it is sometimes harder to get a connection. We have good experience with the iPhone, where the antenna is usually located in the upper edge around the camera. The recommended app is called "NFC Tools". The mobile device is not compatible with the software.







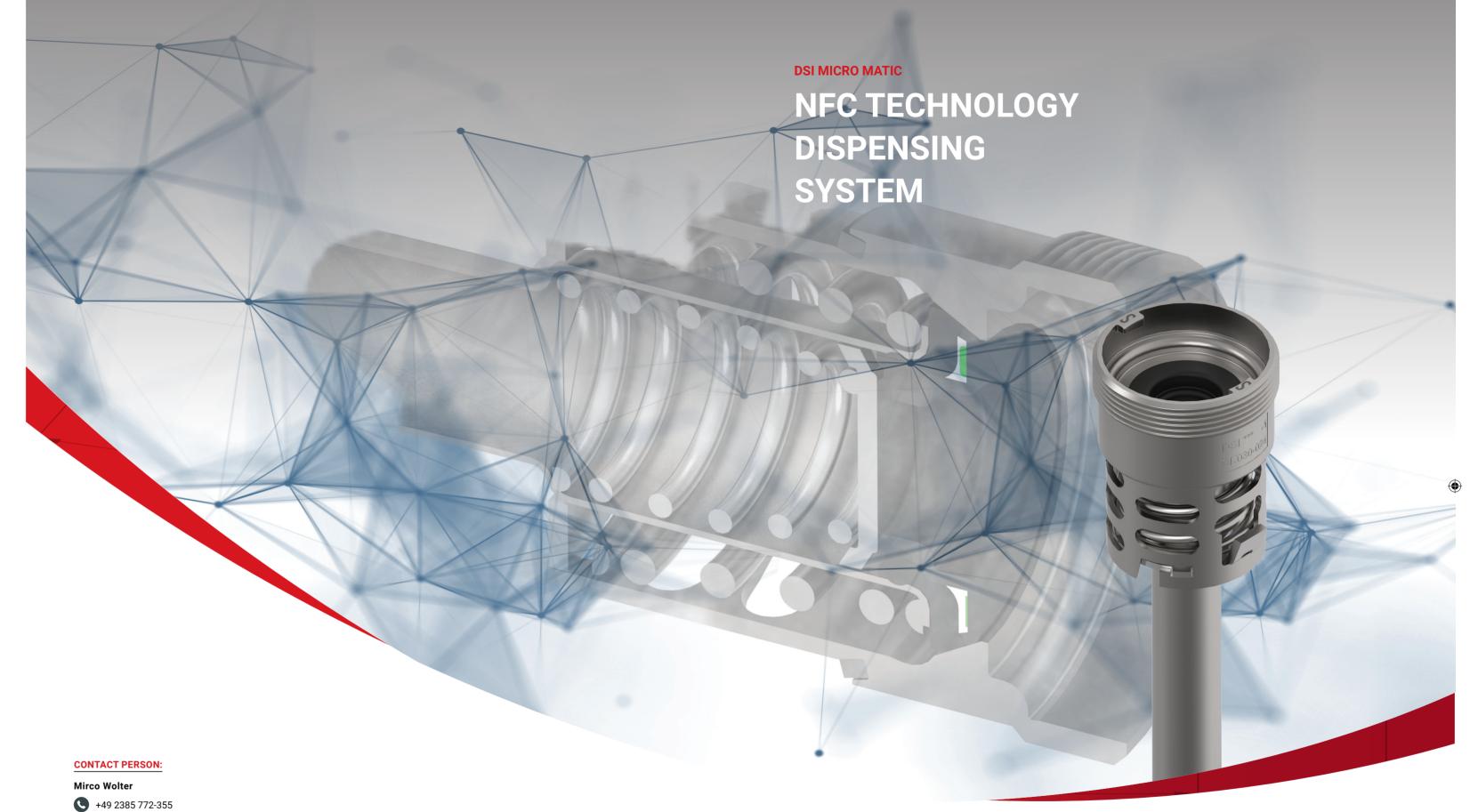


DSI MICRO MATIC

Your manufacturer and supplier for couplers, beer keg valves (spears) and taps

DSI is a part of the Micro Matic family and stands for "Made in Germany" quality. We operate in the beer and soft drink industry and deal with everything needed to tap a beverage from a beverage container or keg. As a competent manufacturer of couplers, spears, and taps, we supply many international companies in the beverage industry. We have more than 100 years of experience with beverage products at our DSI Micro Matic GmbH location in Hamm, Westphalia. There are several other locations worldwide and our employees are united by their focus on technology, innovation, sustainable solutions, and customer service. In addition, our locations are united by the quality standards of our products and the high priority of customer satisfaction. Together we combine experience, professionalism, and innovation to excel in the production of beverage dispensing equipment. We can supply all components from the beverage container to the glass, which enables the customer to have a "one-stop-shop" experience. For us, innovation is driven by increasingly sustainable products, digital technologies, and greater connectivity. These are indispensable factors that shape the future of beverage dispensing and meet the needs of a multi-sector customer base.







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