

# *iID*<sup>®</sup> contactless

wireless mobile RFID interfaces



**identify • measure • collect • analyze**

# iID<sup>®</sup> contactless mobile devices

for each kind of application

iID<sup>®</sup> wearable



wearable device with Bluetooth<sup>™</sup> LE interface and Qi charge, ON/OFF button, motion and gesture sensors.

iID<sup>®</sup> POCKETwork



Mobile device with Bluetooth<sup>™</sup> and USB interface, OLED display, trigger buttons and clock/memory.

iID<sup>®</sup> PENmotion



EOL

iID<sup>®</sup> PENsolid



Mobile device with Bluetooth<sup>™</sup> and USB interface, LEDs and trigger buttons.

All devices support contactless identification using iID<sup>®</sup> transponders as well as sensing using TELID<sup>®</sup> sensor transponders.

# *Technical overview*



# Technical overview – general parameters

| Feature         | iID® POCKETwork                            | iID® PENsolid  | iID® wearable                             |
|-----------------|--|--|---|
| RF              | HF, HFcc (stump)<br>UHFcc<br>UHF mid range | UHFcc<br>HFcc (mic3 up to chipcard)<br>UHF mid range (monopol) | UHFcc<br>UHF mid range                    |
| Ruggedness      | medium (IP54, 1m)                          | high (IP65)  | high (IP65)                               |
| Interface       | Bluetooth 2.0 SPP/HID, micro USB           | Bluetooth 2.0 SPP/HID, micro USB                               | Bluetooth low energy (BLE) 4.0, Qi charge |
| Output          | OLED display, Buzzer                       | 4 x sign lights (LED), Buzzer                                  | 4 x sign lights (LED), vibration          |
| Trigger         | Trigger key, up/down keys                  | Scan button, ON/OFF button                                     | ON/OFF button, motion sensor, gesture     |
| WakeUp          | Button, RF WakeUp                          | Button, RF WakeUp  | Button                                    |
| Operation Modes | DOC, SPC, MPC                              | DOC, SPC   | DOC, SPC                                  |
| Accessoires     | micro USB cable                            | micro USB cable  | Qi charge device                          |
| Additional      | hand strap                                 | hand strap, touch screen support                               | watch strap, clothing holder              |
| Price           | medium high                                | medium high  | medium high                               |

# Technical overview – electronic & platform

| Feature   | iID® POCKETwork                           | iID® PENsolid                             | iID® wearable                         |
|---|---|---|---------------------------------------|
| Electronic HF                                   | .700                                      | .700                                      | -                                     |
| Electronic UHF                                  | T80 v2                                    | T80 v2                                    | T80 v2                                |
| Electronic LEGIC™                               | SM4500                                    | -   | -                                     |
| Windows 32/64 support                           | ● (iID® driver engine or keyboard mode)   | ● (iID® driver engine or keyboard mode)   | -                                     |
| Windows Phone/RT support                        | ● (HID keyboard mode)                     | ● (HID keyboard mode)                     | -                                     |
| Android platform support                        | ● (iID® Android package or keyboard mode) | ● (iID® Android package or keyboard mode) | ● iID® driver engine Android          |
| iOS support                                     | ● (HID keyboard mode)                     | ● (HID keyboard mode)                     | ● iID® driver engine iOS (on request) |
| space line (firmware update, scripting support) | ●   | ●   | ●                                     |

# TAG compatibility

| Feature                                     | iID®<br>POCKETwork HF  | iID®<br>POCKETwork<br>LEGIC™ | iID® POCKETwork<br>UHFcc | iID® POCKETwork<br>UHF | iID® PENsolid HF | iID® PENsolid<br>UHF |
|---|------------------------|------------------------------|--------------------------|------------------------|------------------|----------------------|
| HF -<br>miniaturized<br>transponders        | (●) not<br>recommended | (●) not<br>recommended       | -                        | -                      | ●                | -                    |
| UHF -<br>miniaturized<br>transponders       | -                      | -                            | ●                        | (●) not recommended    | -                | ●                    |
| HF - ISO14443<br>(NFC, mifare),<br>ISO15693 | ●                      | ●                            | -                        | -                      | ●                | -                    |
| HF - TELID®<br>iID-L                        | ●                      | -                            | -                        | -                      | ●                | -                    |
| HF – LEGIC™                                 | -                      | ●                            | -                        | -                      | -                | -                    |
| UHF<br>transponders                         | -                      | -                            | ●                        | ●                      | -                | ●                    |

| Ordering<br>information | iID®<br>POCKETwork HF | iID®<br>POCKETwork<br>LEGIC™ | iID® POCKETwork<br>UHFcc | iID® POCKETwork<br>UHF | iID® PENsolid HF | iID® PENsolid<br>UHF |
|-------------------------|-----------------------|------------------------------|--------------------------|------------------------|------------------|----------------------|
| Product code            | 72.62.720.00          | 72.62.525.00                 | 41.12.820.00             | 41.22.820.00           | 73.72.750.00     | 43.72.850.00         |

# *iID<sup>®</sup> contactless mobile readers*



# Mobile RFID processes with *iID<sup>®</sup>PENsolid*

## Application / features

- > RFID read/write unit for mobile Data Capture
- > Touch screen support for capacitive displays
- > DOC or SPC mode supported
- > Compact form factor
- > Bluetooth™ class 2 SPP and HID interface
- > USB micro interface (Data, configuration and charge)
- > two programable buttons
- > LED visualization of
  - *RFID communication*
  - *Bluetooth™ connectivity*
  - *Rechargeable battery state*
- > Integrated buzzer
- > support for Android, iOS\* and Microsoft Windows/Windows Phone

\*using Bluetooth HID keyboard profile





# iID<sup>®</sup> PENsolid – More than just a pen



## iID<sup>®</sup> PENsolid

**RFID Bluetooth reader device**  
available as **UHF\*** and **HF\*\*** version

\*supporting **ISO 18000-6C** and **TELID®** UHF sensor transponders

\*\*supporting **ISO14443, ISO15693** and **TELID®** HF sensor transponders

communicates via a **Bluetooth** to a HOST (Smart Phone, Tablet ...)

**sturdy, lightweight** RFID reader with protection class **IP65** and resistant plastic housing

for usage in **harsh industrial environments** with the latest **mobile devices**

# Data Capture with *iID*<sup>®</sup>POCKETwork v2

## Application / features

- > POCKET reader for mobile Data Capture
- > Stand alone (SPC) or in connection with an HOST (DOC)
- > Casing Size appr. 86 x 54 x 10 mm<sup>3</sup>
- > Bluetooth™ class 2 SPP and HID interface
- > USB micro interface (Data, configuration, time sync and charge)
- > three programable buttons
- > OLED with 96 x 64 Matrix-Display
- > Integrated 2 MB Flash-Memory for storage of collected data
  - *iID*<sup>®</sup> MPC DATAload for PC data transfer
- > Buzzer with adjustable frequencies
- > support for Android, iOS\* and Microsoft Windows/Windows Phone
  
- > Programable Menu for choosing functions like:
  - *display/store Productcode / UID of transponders*
  - *display/store temperature of TELID<sup>®</sup> sensor in °C*
  - *display/store switch open / close using TELID<sup>®</sup> sensor functionality*



# iID<sup>®</sup> POCKETwork – for smart mobile data capture



**integrated Bluetooth™ SPP and HID functionality**  
easy connection as a wireless keyboard on any mobile device with the platforms Windows, Android or iOS

directional RF antennae for targeted and **selective communication** with HF or UHF transponders

press **SCAN** button to read transponder/sensor data

**FUNCTION** buttons to navigate through menus

**internal battery** is rechargeable via the Micro-USB interface

**OLED display** to show current device status :  
• Battery level  
• Operation mode  
• RFID activity  
• Bluetooth connectivity  
  
and **user notification**

integrated **RTC** and **2MB** flash memory for RFID/sensor data storage plus additional **E<sup>2</sup>PROM** configuration memory

Integrated **BUZZER** for user notification

**iID<sup>®</sup> POCKETwork**  
**RFID Bluetooth reader device**  
available as **UHFcc\***, **UHF\*** and **HF\*\*** version

\*supporting **ISO 18000-6C** and **TELID<sup>®</sup>** UHF sensor transponders

\*supporting **ISO14443**, **ISO15693** and **TELID<sup>®</sup>** HF sensor transponders

communicates via a **Bluetooth** to a HOST (Smart Phone, Tablet ...) and via **USB** to PC

**sturdy, lightweight** RFID data collector with protection class and resistant plastic housing

for usage in **medium harsh industrial environments** with the latest **mobile devices**

# Smart logistic processes with *iID<sup>®</sup>wearable*

## Application / features

- > UHF RFID read/write unit for smart Data Capture
- > TELID<sup>®</sup> sensor support
- > DOC or SPC mode supported
- > Compact form factor
- > Bluetooth<sup>™</sup> low energy with SPP communication
- > Wireless battery charge (Qi standard)
- > LED visualization of
  - *RFID communication*
  - *Bluetooth<sup>™</sup> connectivity*
  - *Rechargeable battery state*
- > Integrated vibration alarm
- > support for Android, WearOS, iOS and Microsoft Windows/Windows Phone



# iID<sup>®</sup> wearable – scanning while wearing



## iID<sup>®</sup> wearable

**RFID Bluetooth reader device**  
available as **UHF\*** version

\*supporting **ISO 18000-6C** and **TELID<sup>®</sup>** UHF sensor transponders

communicates via **Bluetooth Low energy** to a HOST (Smart Phone, Tablet ...)

**sturdy, lightweight** RFID reader with protection class **IP65** and resistant plastic housing

for usage in **harsh industrial environments** with the latest **mobile devices**

# iID<sup>®</sup> COLLECTit! mobile

Wireless  
RFID  
interface

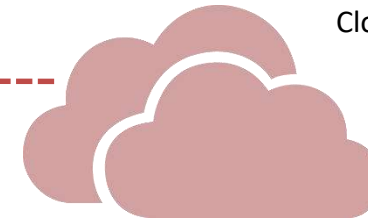
Mobile device (smartphone or  
tablet)

internet

Bluetooth<sup>™</sup> connected or  
integrated iID<sup>®</sup> contactless  
RFID reader

Local area network (Wifi) or  
WAN (GSM)

iID<sup>®</sup>  
COLLECTit!  
Cloud



TAG or sensor (TELID<sup>®</sup>231  
humiditytransponder)

iID<sup>®</sup> PENsolid, iID<sup>®</sup> contactless  
module

iID<sup>®</sup> driver engine for Windows / Android or HID interface  
data transport by wide area networks

Data evaluation

# iID<sup>®</sup> COLLECTit! basic

Wireless  
RFID  
interface

USB or Bluetooth interface to  
personal computer

Local data  
storage

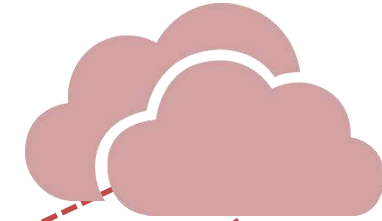
Cloud or  
data evaluation

iID<sup>®</sup> MPC data storage  
of ID, measurement  
data, time stamp

iID<sup>®</sup> MPC data collector /  
iID<sup>®</sup> MPC data converter



Local storage  
XML data files



TAG or sensor (TELID<sup>®</sup>243 pressure transponder)

iID<sup>®</sup> POCKETwork

iID<sup>®</sup> MPC software for PC

Data export to CSV or XML

Data evaluation

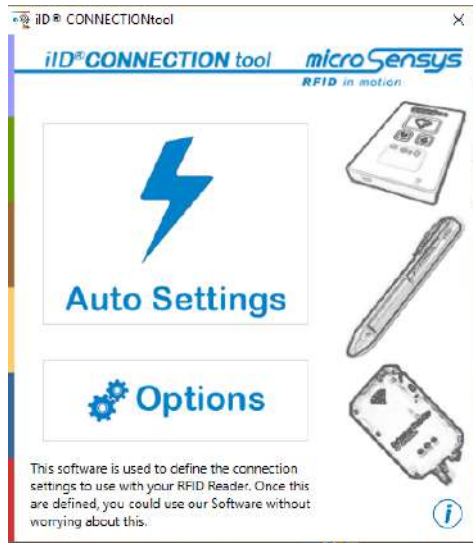


# Setup

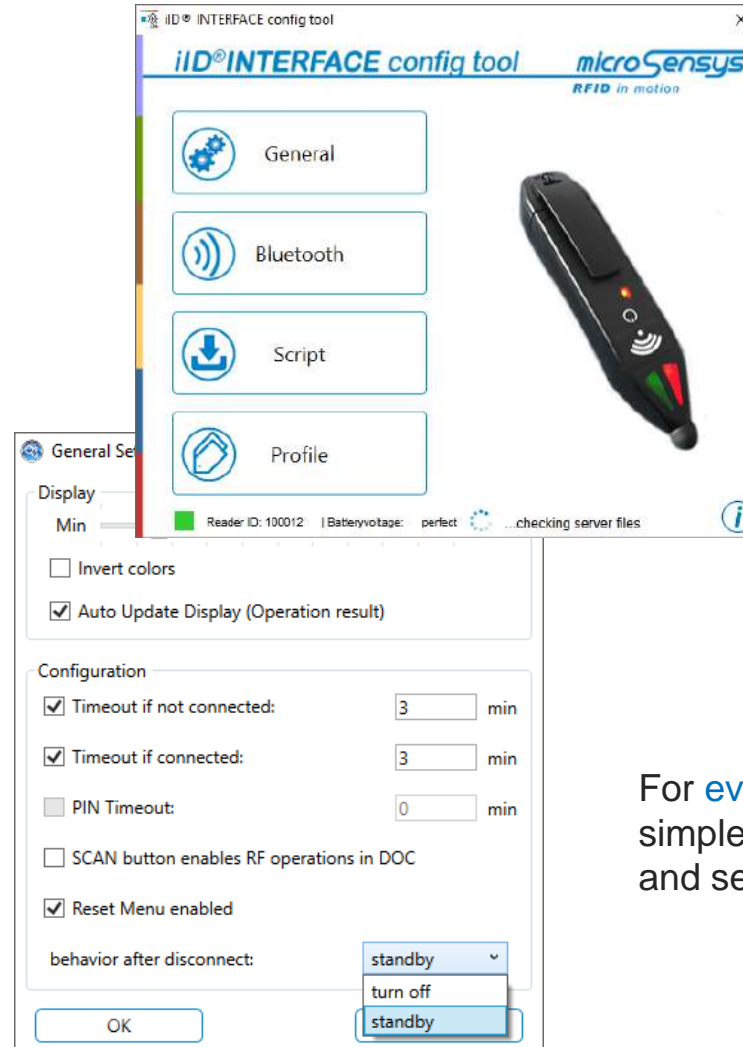




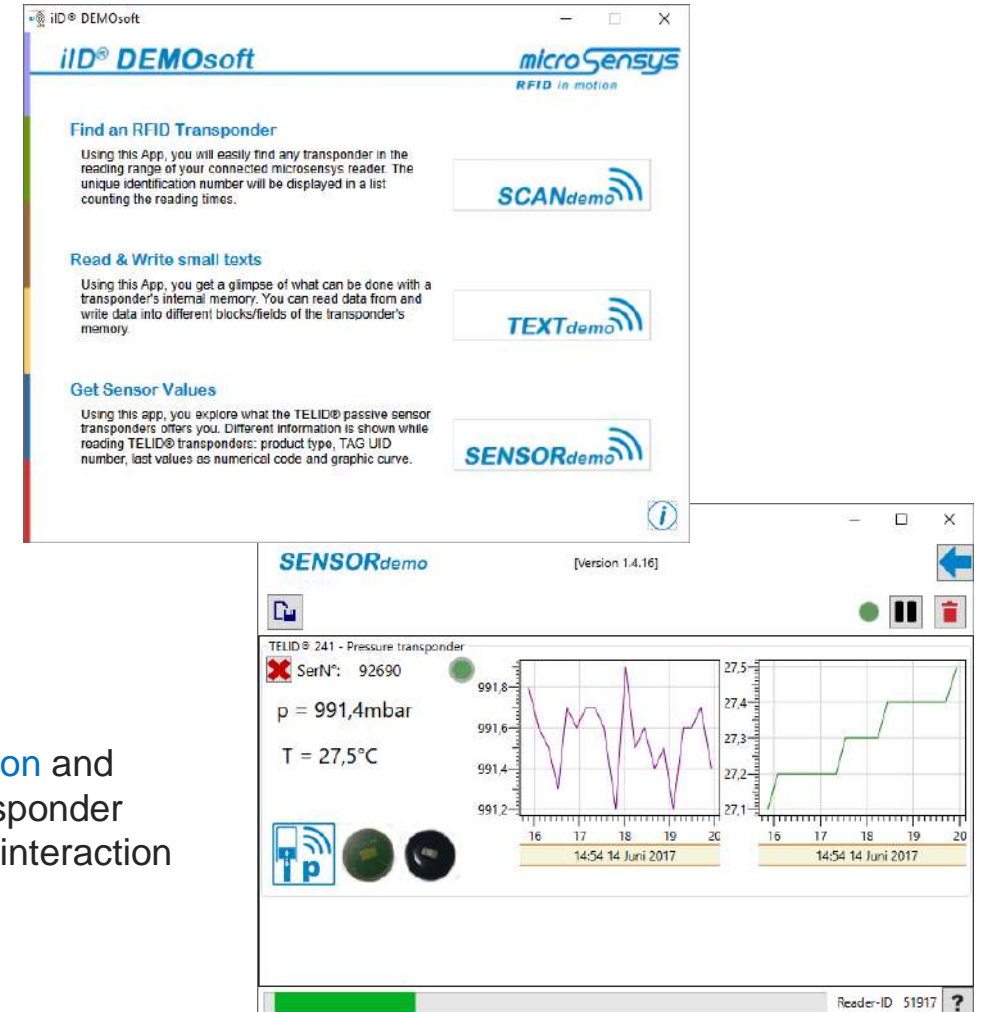
# iID<sup>®</sup> software tools



For initial **setup** and  
reader **configuration**



For **evaluation** and  
simple transponder  
and sensor interaction



# Reader operation modes

| Mode  | Target   | Host communication  | Remark  |
|---|--|---|---|
| <b>DOC</b><br>Direct online communication                       | <ul style="list-style-type: none"><li>• read/write applications</li><li>• full host based reader &amp; transponder control</li></ul> | <ul style="list-style-type: none"><li>• bi-directional protocol based serial host communication</li><li>• iID® driver engine, iID® interface protocol</li></ul> | <ul style="list-style-type: none"><li>• host based transponder search</li><li>• limited reader trigger support</li></ul>  |
| <b>SPC</b><br>Script programmed communication<br>- SCANNER mode | <ul style="list-style-type: none"><li>• scan applications, reader based transponder control</li></ul>                                | <ul style="list-style-type: none"><li>• uni-directional serial communication</li><li>• keyboard / HID emulation</li></ul>                                       | <ul style="list-style-type: none"><li>• script based trigger</li><li>• LED and display control</li><li>• mainly used for HID profile based scan applications</li></ul>  |
| <b>MPC</b><br>Memory packet communication                       | <ul style="list-style-type: none"><li>• data collector applications</li></ul>  | <ul style="list-style-type: none"><li>• iID® MPC library</li><li>• iID® MPC DataLoad for data download</li></ul>  | <ul style="list-style-type: none"><li>• script based data collection on device for later PC download</li><li>• available for MPC enabled devices with RTC and non-volatile memory (iID® POCKETwork)</li></ul> |

# Operation –

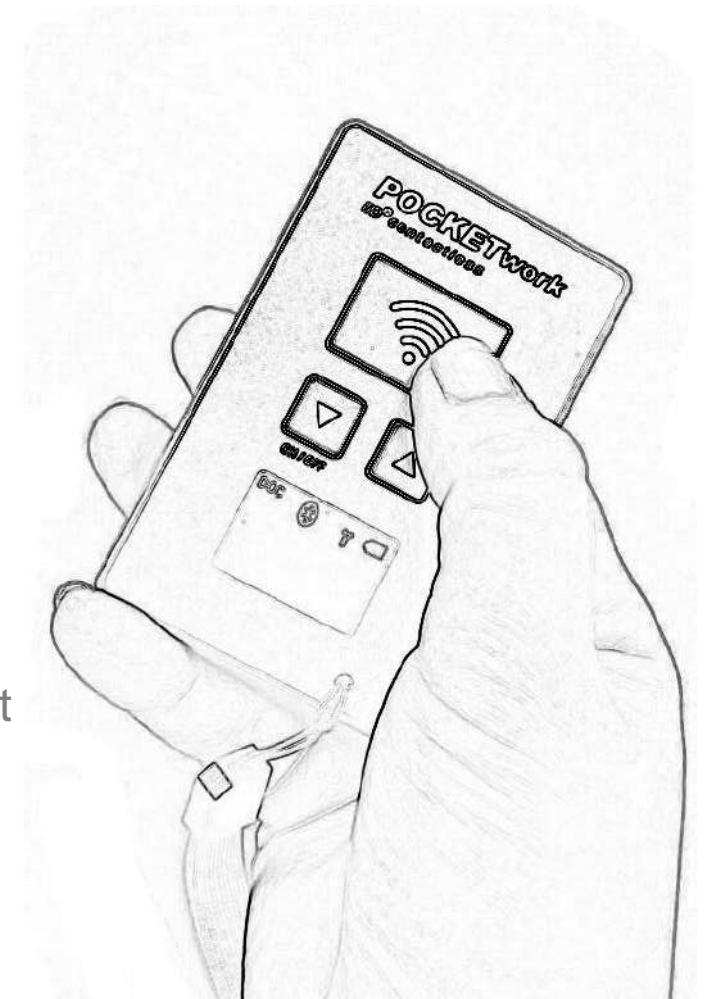
iID® POCKETwork datacollector bundle



# Introduction

## iID® POCKETwork DATAcollector bundle

- is a system solution for mobile RFID based data capture
- may be used for
  - Mobile maintenance processes
  - Faster inventory control
  - Inspection supervision
- can be extended by additional ID & sensor transponders
- comes with MPC DATAload software for data download and export to third party software



# Application

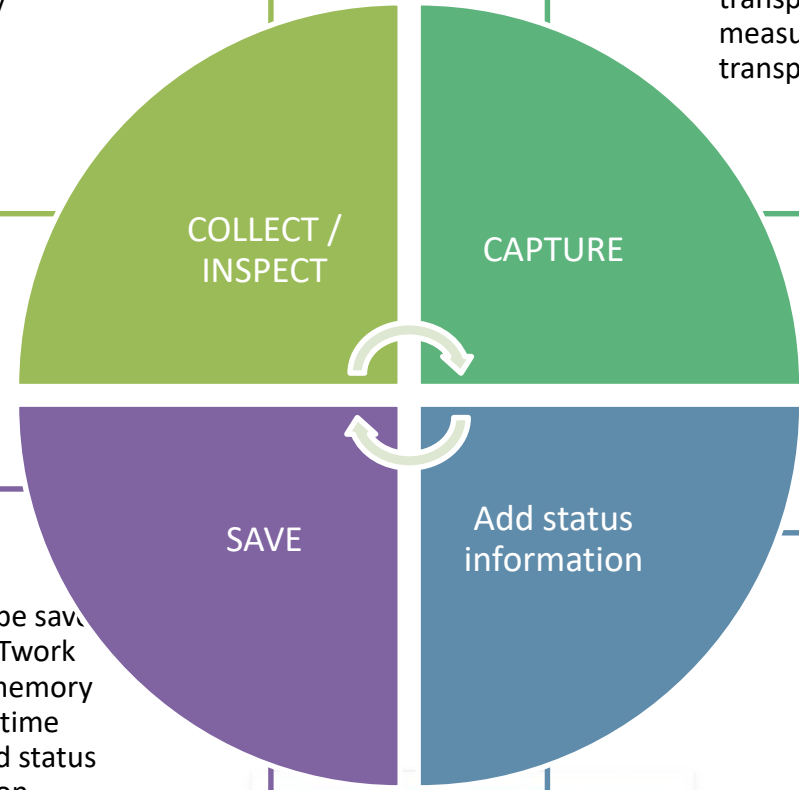


• Visit object to be collected / inspected

• Scan object transponder / measure sensor transponder



**SIGN** Stick transponders / sensor transponders to objects to be collected / inspected



**EVALUATE** Connect device to PC, download data to PC for further evaluation

• Data will be saved to POCKETwork internal memory including time stamp and status information

• Select OKAY, MARK, UNKARK on POCKETwork menu



| Sample              | Type | ReaderID | UID              | Status | Temp      |
|---------------------|------|----------|------------------|--------|-----------|
| 18-16-16-07         | 10   | 57965    | 3A33CA1C0001040D | OKAY   | 'no data' |
| 18-16-16-31         | 10   | 57965    | 3A33CA1C0001040D | mark   | 'no data' |
| 18-16-16-54         | 10   | 57965    | 8A98CA1C0001040D | unmark | 'no data' |
| 2017-06-28 16:16:07 | 10   | 57965    | 3A33CA1C0001040D | unmark | 'no data' |
| 2017-06-28 16:19:12 | 10   | 57965    | 0113DC4480000000 | OKAY   | 26.75     |
| 2017-06-28 16:16:18 | 10   | 57965    | 0113DC4480000000 | mark   | 26.75     |
| 2017-06-28 16:16:23 | 10   | 57965    | 0113DC4480000000 | unmark | 26.75     |

## iID<sup>®</sup> POCKETwork:

- Connect device to your PC/laptop using USB cable
- install USB driver if requested (provided by Windows update)
- See device quick start guide:

[http://microsensys.de/downloads/Additional%20Content/QuickStartGuides\\_A4/QSG-iID%20POCKETwork%20v2-001E.pdf](http://microsensys.de/downloads/Additional%20Content/QuickStartGuides_A4/QSG-iID%20POCKETwork%20v2-001E.pdf)

## iID<sup>®</sup> transponder sample package:

- Stick transponders to the objects to be collected/inspected
- Note, that transponders of type “special” are to be used in metal environment

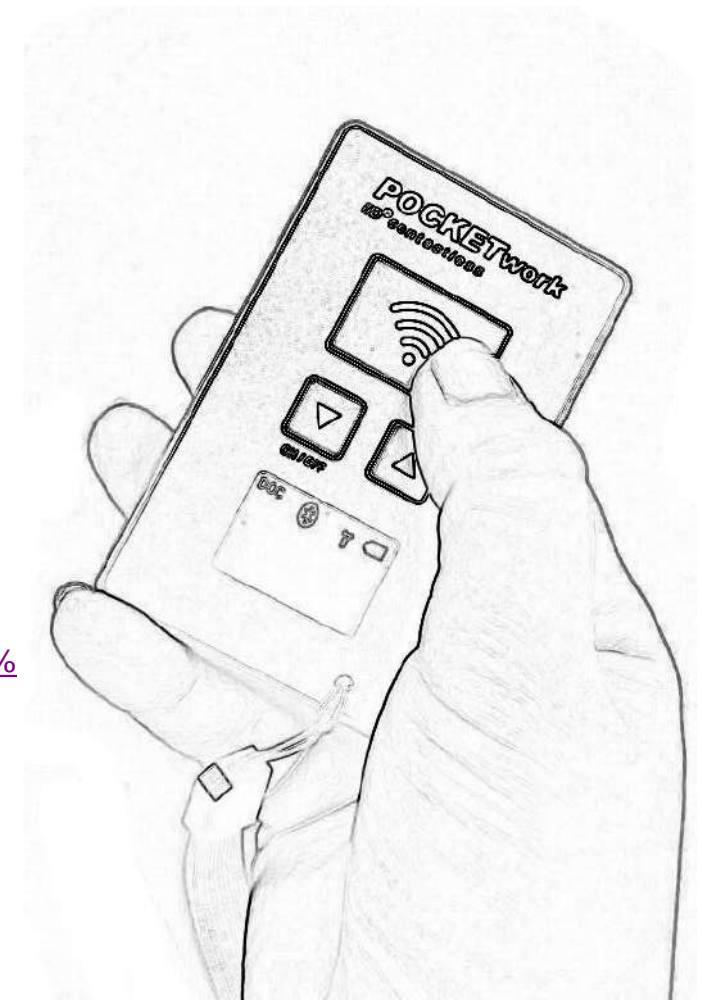
## iID<sup>®</sup> MPC software:

- install iID<sup>®</sup> MPC software:

<http://microsensys.de/downloads/CDCContent/Install/iID%c2%ae%20POCKET/Setup%20iID%c2%ae%20MPC%20Software.msi>

- See quick start guide:

<http://microsensys.de/downloads/CDCContent/Documents/iID%c2%ae%20SPC/Quick-iID%20MPC%2001D.pdf>





# Questions?

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