



## HxGN SmartFixture

Product presentation

2023-07-14 Customer Solutions Wetzlar

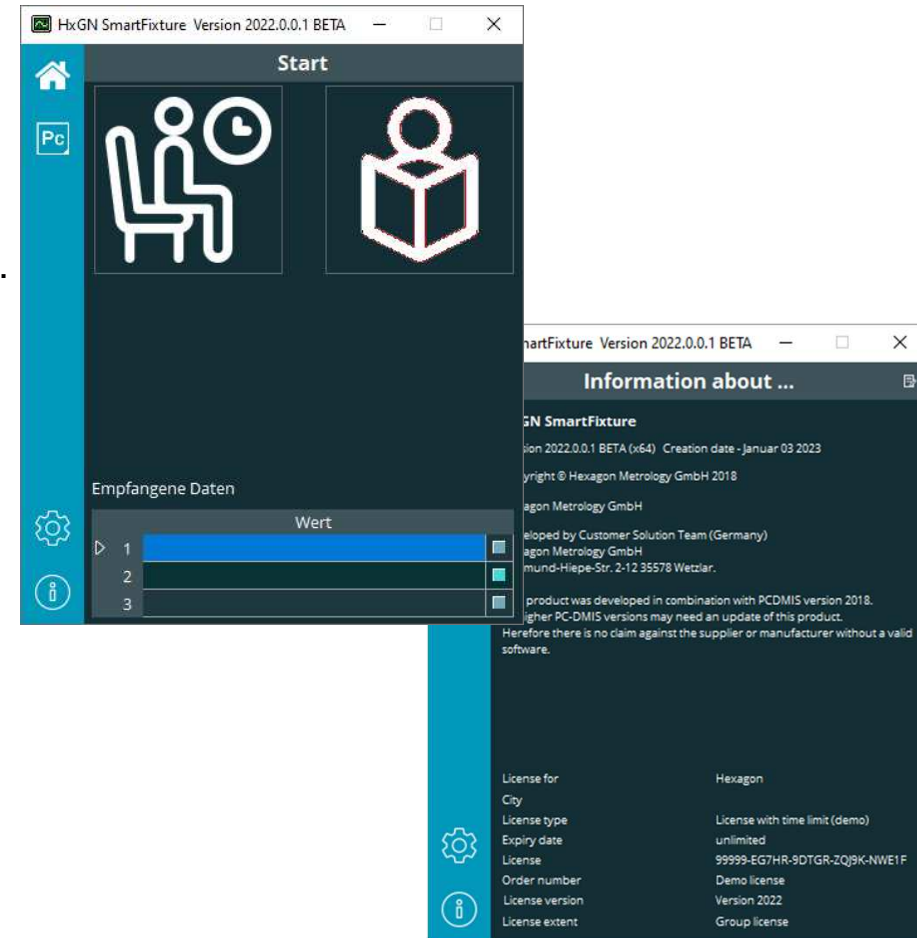
# Integration of TESA measuring probes into the PC-DMIS measuring routine

Aim of the software:

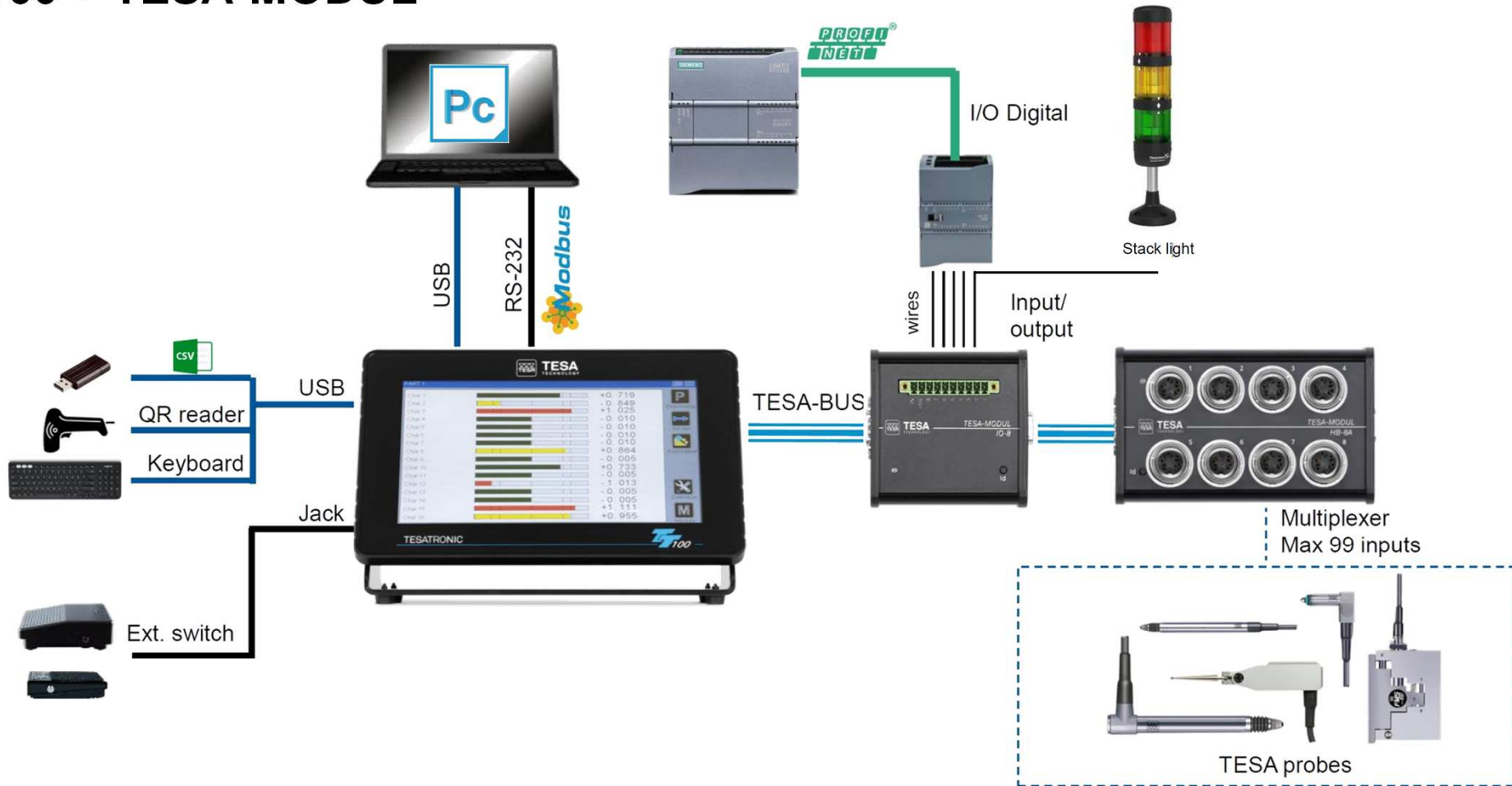
Reduction of the cycle time by integrating a flexible number of probes into the clamping device. The deviations from the "master part" should be able to be used in the PC-DMIS measurement routine as if the measurement had been made with the coordinate measuring machine.



TESATRONIC TT100



# TT100 + TESA-MODUL

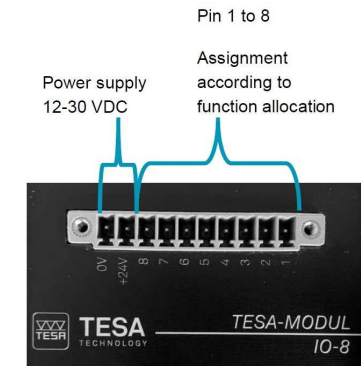


# TESA-MODUL IO-8



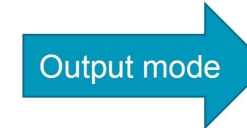
### Automation from the PLC to TESA display

- Go to next sequence
- send data
- Set to Zero
- Calibration



### Automation from TESA display to PLC

- Sequence OK
- Measurement OK
- Classification

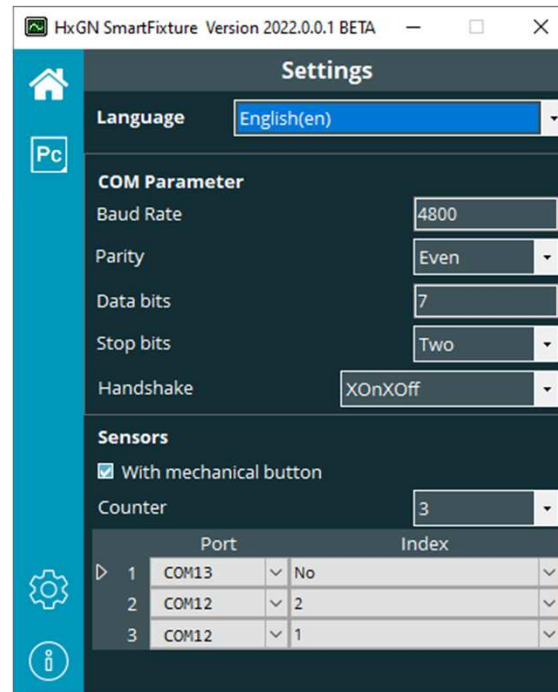


- Voltage 24 VDC
- Max 30 mA

# Integration of TESA measuring probes into the PC-DMIS measuring routine

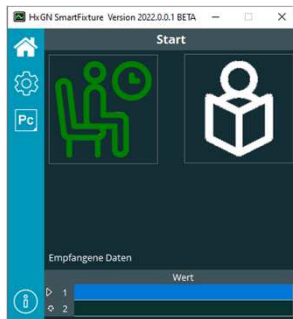
## Connection Settings

The connection of the probes and/or display can be done in the software UI. The used port is detected automatically.



## Integration von TESA Messtastern in eine PC-DMIS Messroutine

- Two operating modes are supported:
  - Operator triggers the measurement on the device

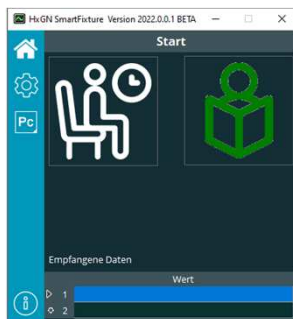


Handwitch, Jack

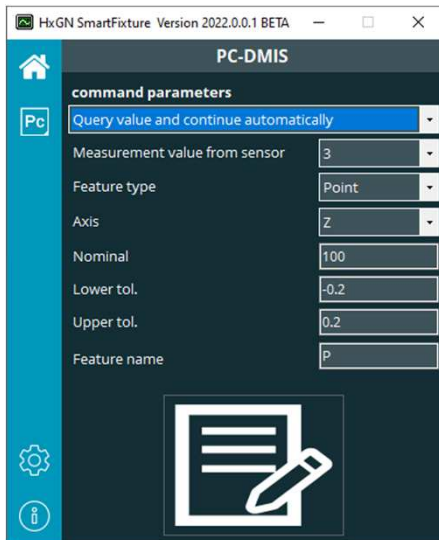


Footswitch, Jack

- Measurement routine reads the data automatically



## Integration of TESA measuring probes into the PC-DMIS measuring routine



- Necessary commands are inserted into the measurement routine in a dialog-based manner.
- Each measured value is available in PC-DMIS as a fully-fledged element and can therefore be used for further operations.
- A dimension command is automatically inserted.
- The measured value of the sensor is regarded as a deviation and offset against the specified nominal value to form the actual measured value.

```

P_Z_1      EXTERNALCOMMAND/NO_DISPLAY, WAIT ; "C:\Program Files\HxGN_SmartFixture\HxGN_SmartFixture.exe P_Z_1:A:1"
           =GENERIC/POINT, DEPENDENT, CARTESIAN, $
           NOM/XYZ, <0, 0, 100>, $
           MEAS/XYZ, <0, 0, 100>, $
           NOM/IJK, <0, 0, 1>, $
           MEAS/IJK, <0, 0, 1>
DIM DIM_P_Z_1= LOCATION OF POINT P_Z_1 UNITS=MM, $
GRAPH=OFF TEXT=OFF MULT=10.00 OUTPUT=BOTH HALF ANGLE=NO
AX  NOMINAL      +TOL      -TOL      MEAS      DEV      OUTTOL
Z   100.000     0.100     -0.100    100.000    0.000    0.000  -----#-----
END OF DIMENSION DIM_P_Z_1
  
```

# Integration of TESA Micro-Hite and TESA caliper

- TESA height gauges and TESA calipers can also be connected to PC-DMIS via HxGN SmartFixture.



Verbindungskabel TLC-USB für Instrumente mit TLC-Anschluss

The screenshot shows the HxGN SmartFixture software interface. The main window is titled 'Start' and contains two large icons: a person sitting at a chair and a person holding a book. Below these icons is a table titled 'Empfangene Daten' (Received Data) with a header 'Wert' (Value) and three rows of data. To the right, an 'Info über ...' window is open, displaying software details.

Empfangene Daten	Wert
1	
2	
3	

Info über ...

- Erstelldatum - Januar 03 2023
- Entwickelt von Hexagon Metrology GmbH 2018
- Support-Team (Deutschland)
- 235578 Wetzlar.
- Kombination mit PCDMIS Version 2018 entwickelt. Neuere Versionen benötigen ein Update zu diesem Produkt. Kein Haftung für Schäden gegen den Lieferanten oder Hersteller ohne Zustimmung von Hexagon.

Lizenz für Werk: Hexagon  
Lizenzart: Zeitlich begrenzte Lizenz (Demo)  
Ablaufdatum: unbegrenzt  
Lizenznummer: 99999-EG7HR-9DTGR-ZQJ9K-NWE1F  
Auftragsnummer: Demo license  
Lizenzversion: Version 2022  
Lizenzumfang: Konzernlizenz



# Have we piqued your interest?

Simply download the software from our server and apply for a non-binding demo license.

[https://ftp.hexmet.de/CustomerSolutions/HxGN\\_SmartFixture](https://ftp.hexmet.de/CustomerSolutions/HxGN_SmartFixture)