



HEXAGON

HxGN HybridMeasurement

Product presentation

2025-10-10 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



The screenshot shows the HxGN HybridMeasurement 2024.1 software interface. The main window is titled 'Home' and features a dark blue background with white icons for a home button, a PC icon, a person sitting at a desk, and a person holding a box. Below these icons is a 'Received data' section with a table:

	Value	
1		<input type="checkbox"/>
2		<input checked="" type="checkbox"/>
3		<input type="checkbox"/>

An 'Information about ...' window is open in the foreground, displaying the following information:

3N HybridMeasurement
 4.1 #3 Juni 21 2024
 Copyright © Hexagon Metrology GmbH 2018
 Hexagon Metrology GmbH
 Developed by Customer Solution Team (Germany)
 Hexagon Metrology GmbH
 mund-Hiepe-Str. 2-12 35578 Wetzlar.
 This product was developed in combination with PC-DMIS version 2018.
 Higher PC-DMIS versions may need an update of this product.
 Herefore there is no claim against the supplier or manufacturer without a valid software.

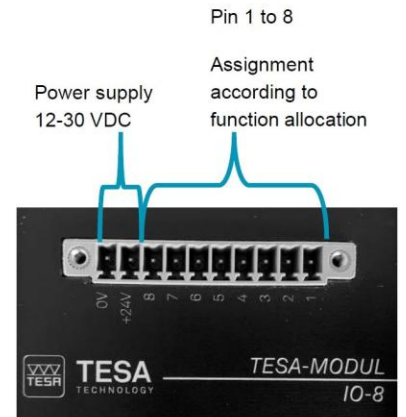
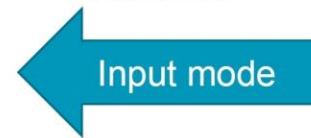
License for: Hexagon
 City:
 License type: License with time limit (demo)
 Expiry date: unlimited
 License: 99999-QDFG7-EBNQH-ZZ46V-FW921
 Order number: Demo license
 License version: 1
 License extent: Group license

TESA-MODUL IO-8



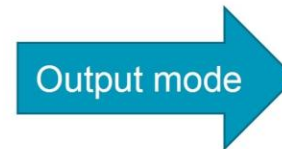
Automation from the PLC to TESA display

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



Automation from TESA display to PLC

- Sequence OK
- Measurement OK
- Classification

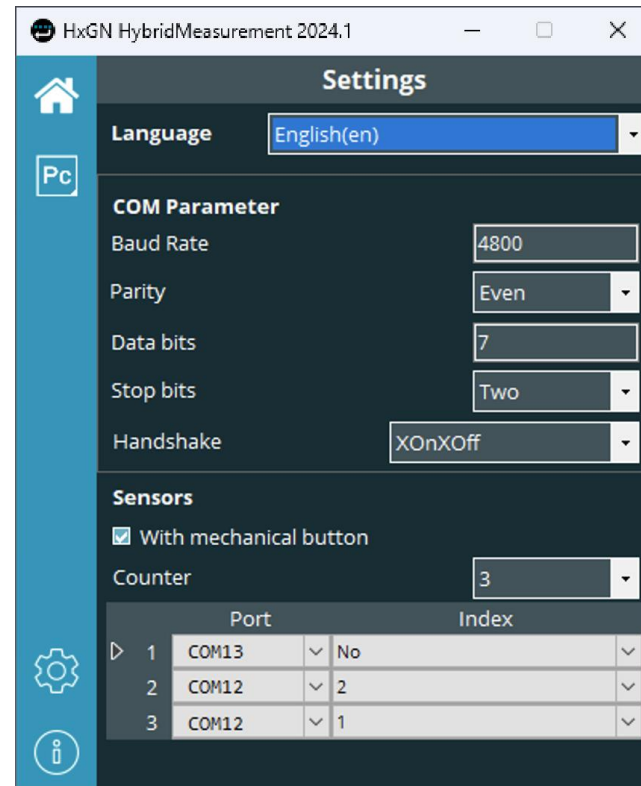


- Voltage 24 VDC
- Max 30 mA

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

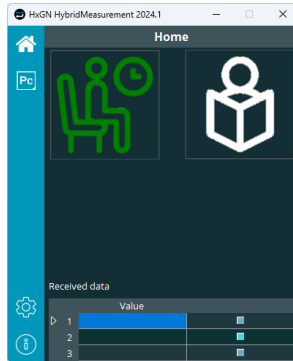
Connection Settings

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



Integration of TESA probes into a PC-DMIS measurement routine

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

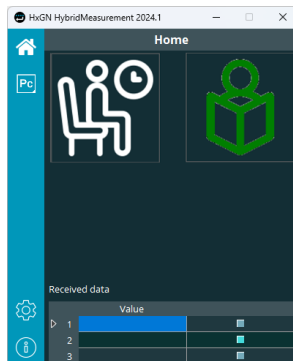


Handwitch, Jack

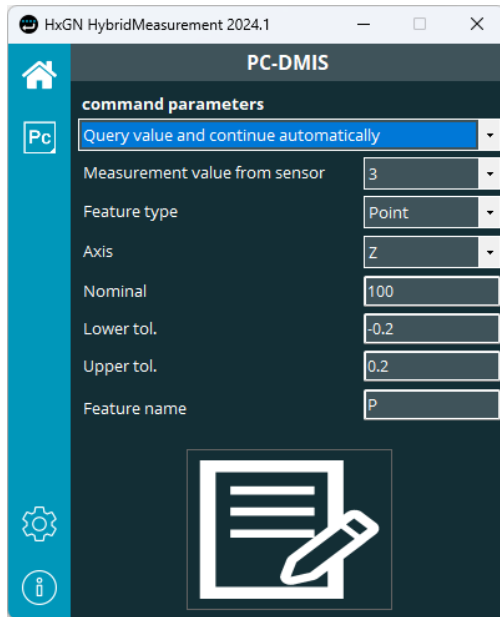


Footswitch, Jack

- 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.

```

EXTERNALCOMMAND/NO_DISPLAY, WAIT ; "C:\Program Files\HxGN_SmartFixture\HxGN_SmartFixture.exe P_Z_1:A:1"
P_Z_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 HybridMeasurement.



Verbindungskabel TLC-USB für Instrumente mit TLC-Anschluss

Home

Received data

	Value	
1		<input type="checkbox"/>
2		<input checked="" type="checkbox"/>
3		<input type="checkbox"/>

License for: Hexagon
 License type: License with time limit (demo)
 Expiry date: unlimited
 License: 99999-QDFG7-EBNQH-ZZ46V-FW921
 Order number: Demo license
 License version: 1
 License extent: Group license

Have we piqued your interest?

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

https://downloads.ms.hexagonmi.com/PC-DMIS_Solution_Modules/HxGN_HybridMeasurement