





HONSEL DMSD 2G



Display module – DIM

Measurement recording module – MEM

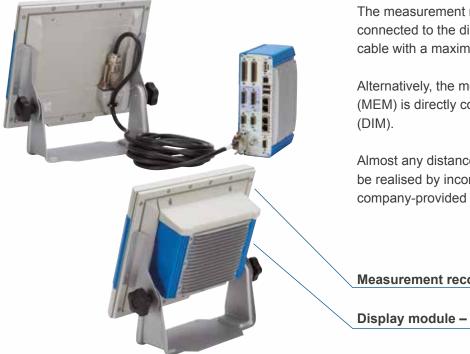


Advantages of the new DMSD 2G

- Connecting facilities for measurement transducers with different output signals from DMS to incremental and piezo-measurement transducers without additional amplifiers.
- The resolution of the distance measurement has been improved from 0.1 mm to 0.01 mm. The resolution therefore complies with the VDA requirement for 10 times resolution when recording with regard to the evaluation.
- The facility for monitoring maximum force and two additional control windows has been supplemented by two freely parametrisable control windows, even to the extent of envelope curve monitoring. It is possible to evaluate up to 10 evaluation elements in one measuring program.

- Up to 108 measuring programs can be stored in the monitoring. Up to 20 master programs are available for the monitoring.
- Parametrisation and programming take place via the firmware installed in the controller – no additional program is required.
- Operation and remote maintenance are possible using VPN tunnels via a VNC viewer, meaning that the operator can see what is being carried out via the remote maintenance. With the remote maintenance you can see which actions are being carried out by the operator. A large monitor can be attached via the VNC viewer.





The measurement recording module can be connected to the display module via a connecting cable with a maximum cable length of 5 m.

Alternatively, the measurement recording module (MEM) is directly connected to the display module

Almost any distance between the modules can be realised by incorporating DIMs and MEMs in a company-provided Ethernet.

Measurement recording module – MEM

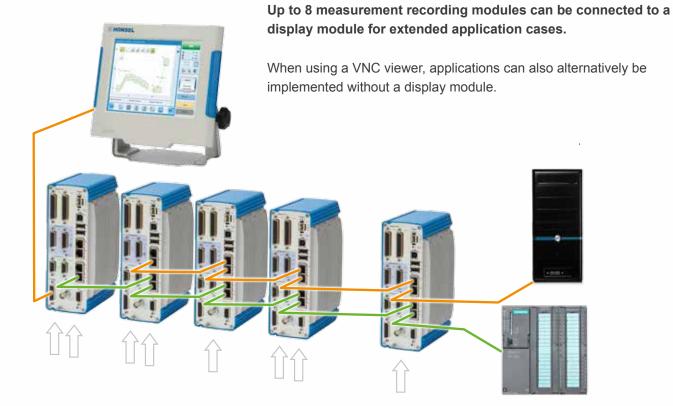
Display module – DIM

DMSD has stood for process monitoring in fastening technology for more than 25 years. HONSEL received its first patent for process monitoring in blind rivet processing back in 1990. DMSD has been continuously improved and optimised since this time. All **HONSEL** standard tool components such as RivSys BZ & VNG, automated solutions, work stations and hand tools for rivet nuts, blind rivets and coils can be connected to the **DMSD** 2G.

- · In-process monitoring of joining and assembly procedures.
- · Early detection of quality deviations in the manufacturing process.
- Minimisation of QA effort.
- Transparency in the production process leads to faster feedback.
- · Traceable process results.
- · Reduction in additional test routines.

The new second generation DMSD 2 process monitoring is a consistent further development, since industrial requirements have been increasing constantly for the last few years.

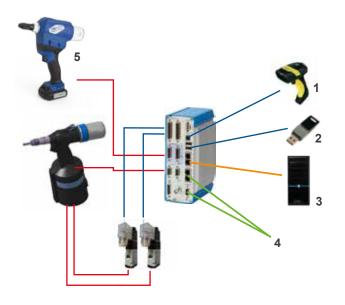
New measurement transducers which require a faster sampling rate, parallel and faster data processing and new networking options are the characteristics of the newly designed DMSD 2G.



- The measurement evaluation module (MEM) can be used with a display module (DIM) or also without a display module as a black box module.
- Up to 8 MEMs can be connected to a DIM. 4, 5 or 9 MEM evaluation windows can be displayed simultaneously on a DIM.
- As well as the last process values, a history of the previous setting processes can be called up via the MEM.
- The process monitoring measuring programs and settings can be stored on a USB storage medium, from where they can also be restored.
- The process values can be archived on USB storage media or on a server via Ethernet (USB storage medium, server or QDAS).

- The process values can be stored in Q-DAS, XML, CSV, PDF, QDA-9 or IPM 5.0 format. Process values stored in CSV format can be subjected to further processing using Excel.
- A scanner for recording the components can be directly attached to the MEM. If a scanner is incorporated, the code that is read in is also stored, making tracking possible.
- Connection to a customer controller is possible via digital inputs and outputs and via a field bus (PROFINET, PROFIBUS DP and EtherCAT).

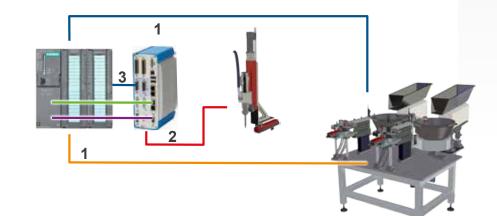
Example of connecting facilities with a handheld tool:

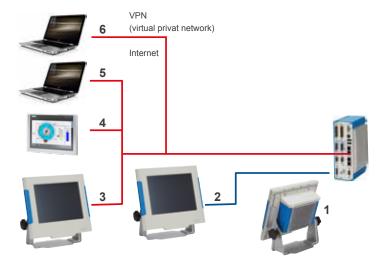


- 1. Hand scanner
- 2. USB storage medium
- 3. Server
- 4. Digital inputs (5x) and outputs (8x)
 - PROFINET
 - EtherCAT
 - PROFIBUS DP
- 5. eBZ Smart-Tool connection by WiFi (in preparation)

Example of connecting facilities with an automation system:

- Machine control with PLC via digital inputs and outputs or field bus
- 2. Sensor system for process monitoring
- Communication: PLC <-> MEM via digital inputs or outputs or field bus





Connection between MEM and programming user interface

- 1. MEM fitted directly to DIM (piggyback).
- Distance between DIM and MEM up to 5 m via cable.
- 3. Operation via DIM connected via Ethernet.
- 4. Operation with VNC viewer on machine control unit via Ethernet.
- 5. Operation with VNC viewer on PC via Ethernet.
- 6. Remote maintenance via Internet and VPN.





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