

## 2G benefits at a glance

- Connection possibility 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. This therefore complies with the VDA demand 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 is possible using a VPN tunnel via a VNC viewer. The persons involved can access the functions of the software via the Internet and monitor the actions. The VNC viewer can also be connected to a large monitor.
- The measurement evaluation module (MEM) can be used with the display module (DIM) or also as a black box module without a display module.

DIM and MEM directly connected



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

Almost any distance between the modules can be realised by incorporating DIMs and MEMs in a company-provided Ethernet. Alternatively, the measurement recording module (MEM) is directly connected to the display module (DIM).

Display module – DIM



Measurement recording module – MEM

## VVG The HONSEL Group

Reliable for more than 85 years  
**WORLDWIDE**, the companies of the HONSEL Group are the **competent partners for demanding and optimal fastening solutions**.  
 Fast. Flexible. On site.

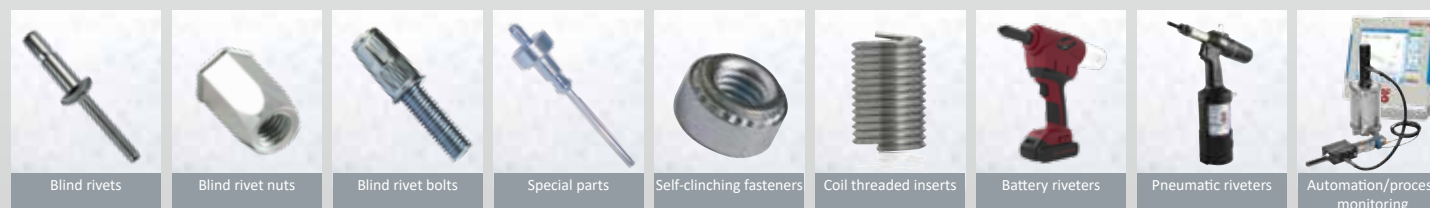


### Processing in perfection

We produce high quality riveting tools for every application. From the manual riveter, to the pneumatic riveting tool and the modern battery riveter of the Rivdom family, to the fully automated solution for series production.

### Fastening elements in limitless variety

We supply blind rivets, blind rivet nuts and -bolts, sleeves, as well as self-clinching fasteners or coil threaded inserts - from our extensive standard program or as individual special part.



VVG Befestigungstechnik  
 Ein Unternehmen der HONSEL-Gruppe

## DMSD 2G process monitoring



# DMSD2G Process monitoring

- Wireless for maximum flexibility (with RivSmart®)
- In-process monitoring of blind rivet setting processes
- Early detection of quality deviations
- Minimisation of QA effort
- Quick feedback through transparency in the production process
- Traceable process results
- Reduction in additional test routines.



Type	VNG 802 DMSD 2G	BZ 101 A DMSD 2G	BZ 121 A DMSD 2G	RivSmart DMSD 2G
Operating mode	pneumatic-hydraulic	pneumatic-hydraulic	pneumatic-hydraulic	battery
Pressure (bar)	5 - 7	5 - 7	5 - 7	–
Stroke (mm)	7	17	21	20
Noise (db(A))	< 92	< 95	< 95	–
Working power (N)	29,000	11,500	18,000	8,500
Weight (kg)	2.7	2.0	2.5	1.3 (incl. battery)
Speed (rpm)	screwing: 1,800 removing: 2,500	–	–	–
Max. mandrel Ø mm	–	3.6	4.2	3.4
Fastener aluminium (mm)	M4-M10 (optional M12)	2.4 - 5.0	4.0 - 8.0	2.4 - 5.0
Fastener steel (mm)	M4-M10 (optional M12)	3.0 - 5.0	4.0 - 8.0	2.4 - 5.0
Fastener stainless steel (mm)	M4-M10 (optional M12)	3.0 - 5.0	4.0 - 6.4	2.4 - 5.0
Blind rivet nut steel (mm)	M4-M8	–	–	–
Blind rivet copper alloys (mm)	–	3.0 - 5.0	4.0 - 6.0	2.4 - 5.0

Up to 8 MEMs can be connected to a DIM and displayed simultaneously.

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 a USB storage medium 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).



Up to eight measurement recording modules can be connected to a display module for extended applications.

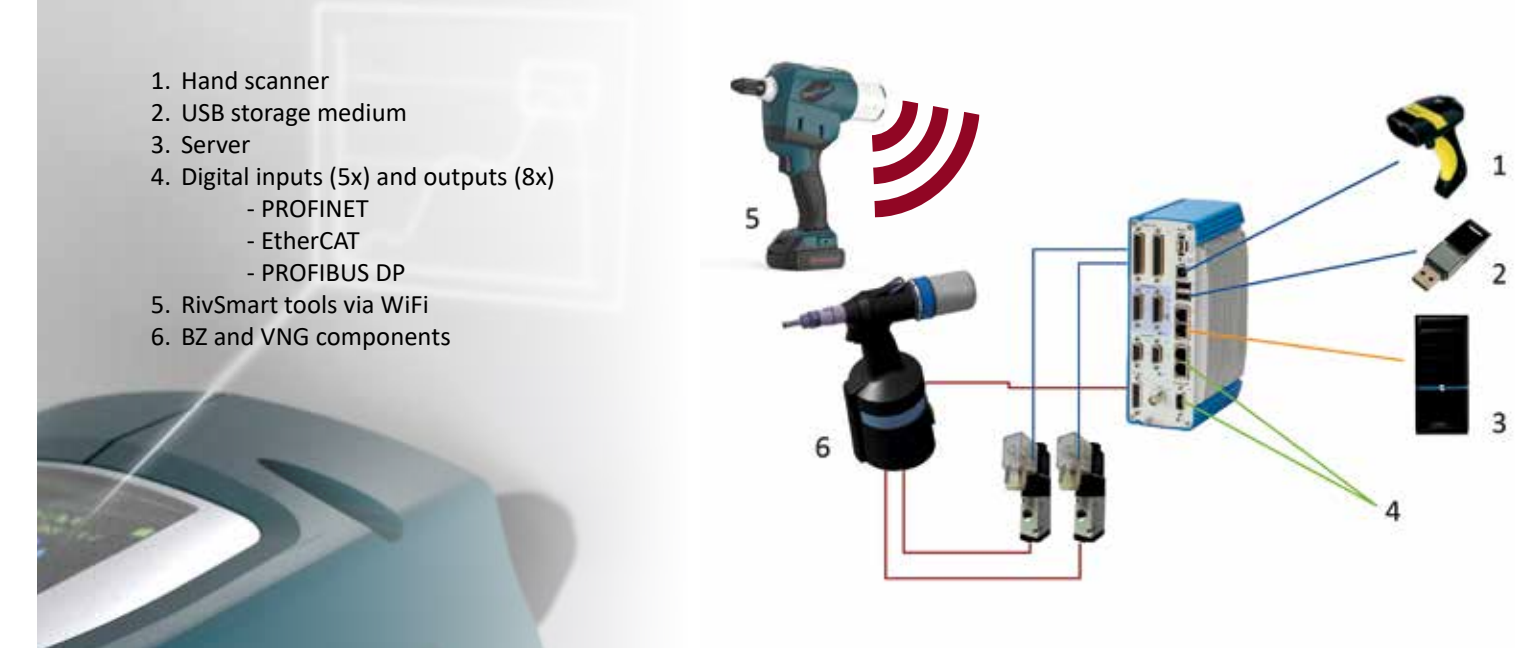
When using a VNC viewer, applications can also alternatively be implemented that do not have a display module.

## 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 VVG/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. 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.

### Connection possibility with a hand-held tool

1. Hand scanner
2. USB storage medium
3. Server
4. Digital inputs (5x) and outputs (8x)
  - PROFINET
  - EtherCAT
  - PROFIBUS DP
5. RivSmart tools via WiFi
6. BZ and VNG components



### Connection possibility with an automation system

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



### Connection between MEM and programming user interface

1. MEM fitted directly on DIM.
2. 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.

