Operation Manual

Data Interface DI220

For Micro IV G223

Congratulations!

You decided for a high technology product of GfG. A good choice!

Our detectors are characterized by reliability, safety, best performance and economic efficiency.

They comply with national and international directives.

This manual will help you to operate the detector quickly and safely.

Please take note of the operational hints before putting into operation!

For any questions please feel free to contact us.

GfG Gesellschaft für Gerätebau mbH
Klönnestraße 99
D-44143 Dortmund
☎: +49 - 231 – 564 000
Fax: +49 – 231 - 516 313
www.gfg.biz
info@gfg.biz

Content

Introduction

For your Safety

According to § 3 of the law about technical working media, this manual points out the proper use of the product and serves to prevent dangers.

It must be read and adhered to by all persons who use, service, maintain and check this product. This detector can do the job designed to do only, if it is used, serviced, maintained and checked according to the instructions given by GfG Gesellschaft für Gerätebau.

The warranties made by GfG with respect to the product are voided, if the product is not used, serviced, maintained and checked in accordance with GfG's instructions. The above does not alter statements regarding warranties and liabilities in GfG's general conditions of sale and delivery. Repairs must only be done by skilled personnel resp. by trained persons. Modifications and changes of the product require GfG's permission. Unauthorized modification of the product result in the exclusion of any liability for possible damage. Make sure that only genuine GfG accessories are used with the product. Repairs require the use of spare parts released by GfG.

Application and use

The data interface DI220 serves the configuration and transmission of measured data from the MICRO IV to the PC. The program G220CNF stores the measured data in CSV format. These formats can be read by the common programs such as Microsoft EXCEL® or ACCESS®. In addition a function test and an adjustment can be accomplished manually with the DI220.

Connections and operational elements

The DI220 is linked to the PC by means of an USB connector. The DI220 has a connection for the gas supply and gas outlet. For the configuration, data communication or operation of a Bump test or a calibration the Micro IV with the diffusion opening is put downward into the DI220. It is to be made certain that the diffusion opening lies over the two gas connectors lying next to each other.

Positioning and putting in operation

Put the docking station on a flat level surface. Make sure that the test gas is drained freely and pressure-free! The test gas has to be supplied by means of a pump with a flow rate of 0.5l/min.

When starting up make sure that the connections for gas inlet, gas outlet and PC connection are performed correctly.

Installation

First the software has to be installed. Put the CD into your CD-drive. In case the Autostart function should not be executed, start the program Setup.exe directly from the CD. For operating systems based on Windows NT you need administrator rights for the installation. After starting the Setup program please follow the instructions on the screen. If there is a special installation guidance for your program version, this can be found in the file Info_DE.txt on the disk or CD.

USB Installation

Now connect the USB adapter to your PC. Windows recognizes the new hardware and asks for the driver. The driver is in the listing USB_V200 on the CD. Instruct Windows to install the driver from this listing. 2 driver components are installed. The first driver is the USB driver, the second driver the virtual COM-Port. Windows XP releases the message that the driver did not pass the Windows logo examination. This message can be ignored. After the successful installation you can see in the device manager (Start->
System control-> System->Device manager), which COM-Port was reserved for the USB adapter. You need the designation of the COM-Port e.g.: COM4 for the adjustment in the software.

Select G220Conf

The program started by one double click on the icon "GfG G220cnf". The icon installed under "Start\programs\GfG\Micro IV". After the program is started the program surface shows up. Before starting the program the data interface must be connected to the PC.

On the right side under the red circle the port for the data interface is selected.   Then click on the „Open Port" for opening the port and for starting the connection to the DI220. The MICRO IV is put in such a way now into the Slot of the data interface that the diffusion opening lies over the two gas connectors in the data interface. For connection the middle key must be pressed at the MICRO IV. The circle becomes green to indicate that the connection is completed. On the present page in the program the fields are filled with the data by the MICRO IV.
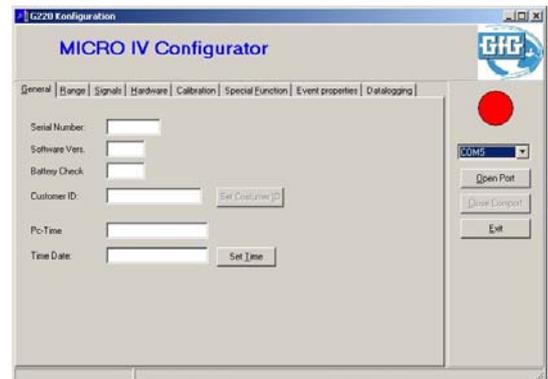
General

Here you see the general data of the detector: Serial number, software version, battery capacity, CustomerID, date and time of the internal clock. This page allows changes only in the CustomerID field. For transferring the change to the detector, click on "Set Customer ID". Click on "Set Time" to transfer the PC time to the MICRO IV. If the time deviation is more than 5 minutes, the time is transferred automatically to the detector.
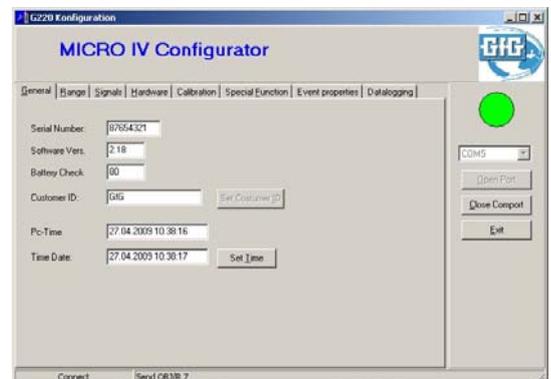
Range

Here you see the detection range of the instrument and the relevant alarm settings. In the field Value the current measurement value is shown. The fields A1 to TWA can be changed, to adjust the alarm values. If a value is set to zero, this threshold is locked and the detector does not trigger an alarm for this value. The individual fields are:

A1 = 1st alarm threshold, A2 = 2nd alarm threshold, A3 = 3rd alarm threshold, STEL = short-term exposure level over 15 minutes, TWA = time weighted average over 8 hours.

With the check boxes you can determine whether the alarm is falling below and stored (then an alarm must be reset). With the check box „allowed honk off" you can permit the user to switch the horn off during an active alarm. **Please adhere to your local directives.**

The field CAL Gas specifies the gas concentration of the calibration gas which is used for adjusting the detector by means of the keypad.

Signals

Here you can adjust the behaviour of the detector. Example: Should you wish the vibrating alarm to remain switched on for longer time, you can select „Moderate" or „Long". Should the vibrator be deactivated during an alarm, select "Off".

For the other operating features you can do similar definitions.

The fields for the Bump or Cal alarm provide controls when the docking station DS220 is used.
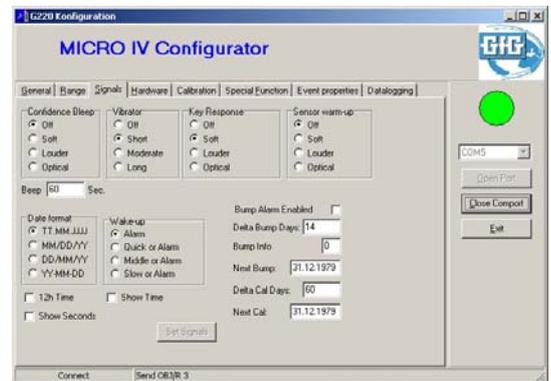
Hardware

This page shows the hardware setting of the detector. It is possible to authorize the user to adjust the detector by means of the keypad, to switch off the vibrator or to lock the keypad in a way that only the battery test is possible.

Detectors with firmware versions of at least 2.20 allow to select the safe Min-Max mode. In this mode the user cannot delete the maximum values by means of the keypad.

Additionally the detector can be configured to select the best resolution, if the sensor data provide several detection ranges.
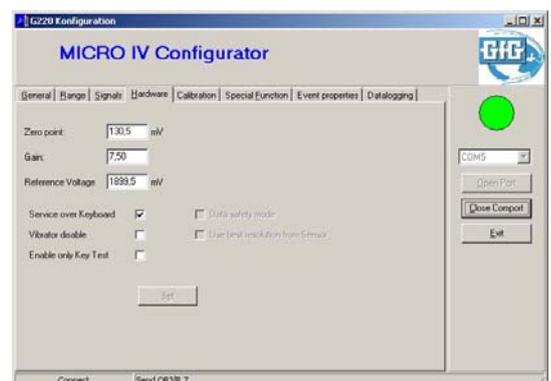
Calibration

The DI220 allows a quick and easy adjustment of the MICRO IV. Air or test gas must be supplied by means of a pump with a flow rate of 0.5l/min ± 0.1l/min.
By clicking on "Start Zero" the zeropoint adjustment is started. For zeropoint adjustment, synthetic air must be used. For adjustment enter the test gas concentration in the field "Gas concentration" and click on "Start Cal". The field "Result" shows whether the procedure was successful or not.
"Horn Check" means a test of the audible signal.
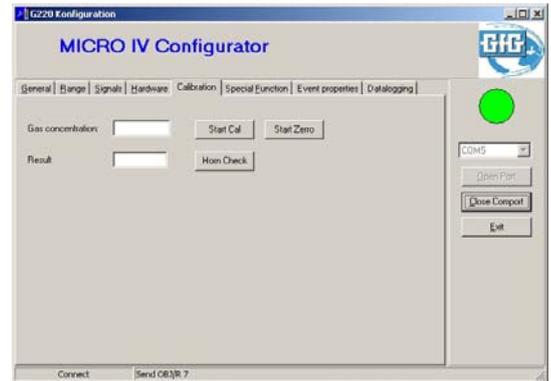
Special function

This page is meant only for service. The detector can be turned off or set back to factory settings. All other functions should only be used after consultation by GfG.

Event properties

Here you can read the event logger of the MICRO IV and store the data as a CSV file on your PC. The event data include the following information:
Date and time, activation or deactivation of alarm, current gas concentration. The left hand fields are for information only. Event data are present, if the field "Event Count" shows a value higher than zero. To transfer event data to the PC, click on "Read". The system asks for a file name. Under this name these data are stored on the PC. In order to import the data to MS-EXCEL, start EXCEL and save the file via drag and drop into EXCEL. To delete the data in the detector push the button "Clear". For a series of measurements the oldest data should be deleted first.

Data logging

Here you can readout the data logger of the MICRO IV and store the data on your PC as CSV file. The data include the following information:

Date and time, current gas concentration.

The left hand fields are for information only. Data are present, if the field "DL Block" shows a value higher than zero. Clicking on "Read" transmits the data from the detector to the PC. The system asks for a file name. Under this name these data are stored on the PC. In order to import the data to MS-EXCEL, start EXCEL and save the file via drag and drop into EXCEL. To delete the data in the detector push the button "Clear". For a series of measurements the oldest data should be deleted first.

Software G220reader

This software allows the automatic read out of event and data logger. The software will be launched with icon "MicroIV data readout". The icon is located under "Start\Programs\GfG\MicroIV". The configuration program has to be finished to enable the program to establish a connection with the DI220.
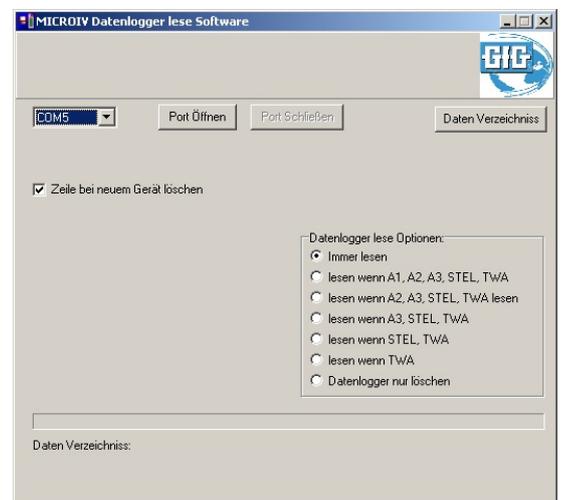
Selecting directory

Click on "Directory" to select where the event and data logger data are to be stored. Chose an existing directory.

Determine when data logger is read out

Within the field "Data logger read out option" you can select when the data logger shall be read out. The first option "Always read out" means that data are always read out. The second option means data logger is only read out if Alarm 1, Alarm 2, Alarm 3, STEL-alarm or TWA-alarm was triggered.
Important: After reading out data the event and data logger in the instrument will be cleared and the instrument will be turned off.


Building up connection to DI220

Click on "Open port" to build up a connection to the DI220. You cannot change any option in that mode. Software is awaiting an activated Micro IV being put in the DI220.
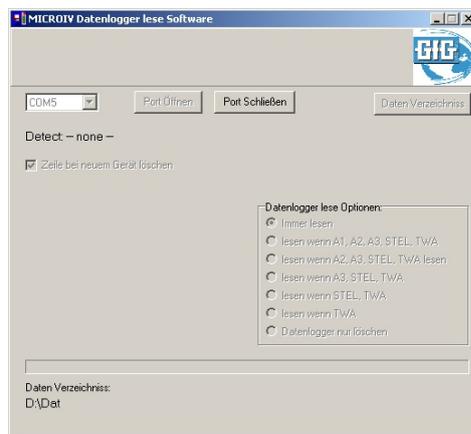
Read out instrument data

When a Micro IV is put in the DI220 the software recognizes it in about 2 to 3 seconds and starts transferring data to the PC. In the first line the serial number and the actual user are shown. In the second line the peak values of the STEL and the TWA are shown.
In group "Alarm counter" the number of recognized alarms is shown. After all data being transferred and saved the logger is cleared and the instrument is turned off. The second line is cleared either after the instrument is turned off or when the next instrument is put in the DI220.
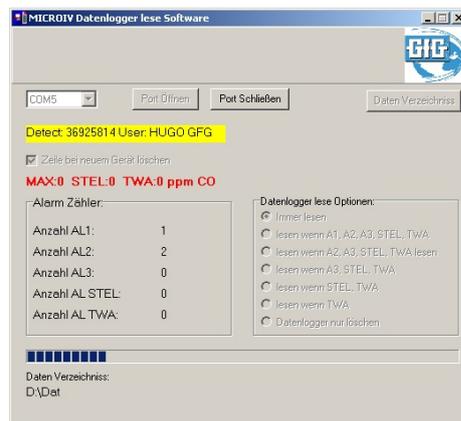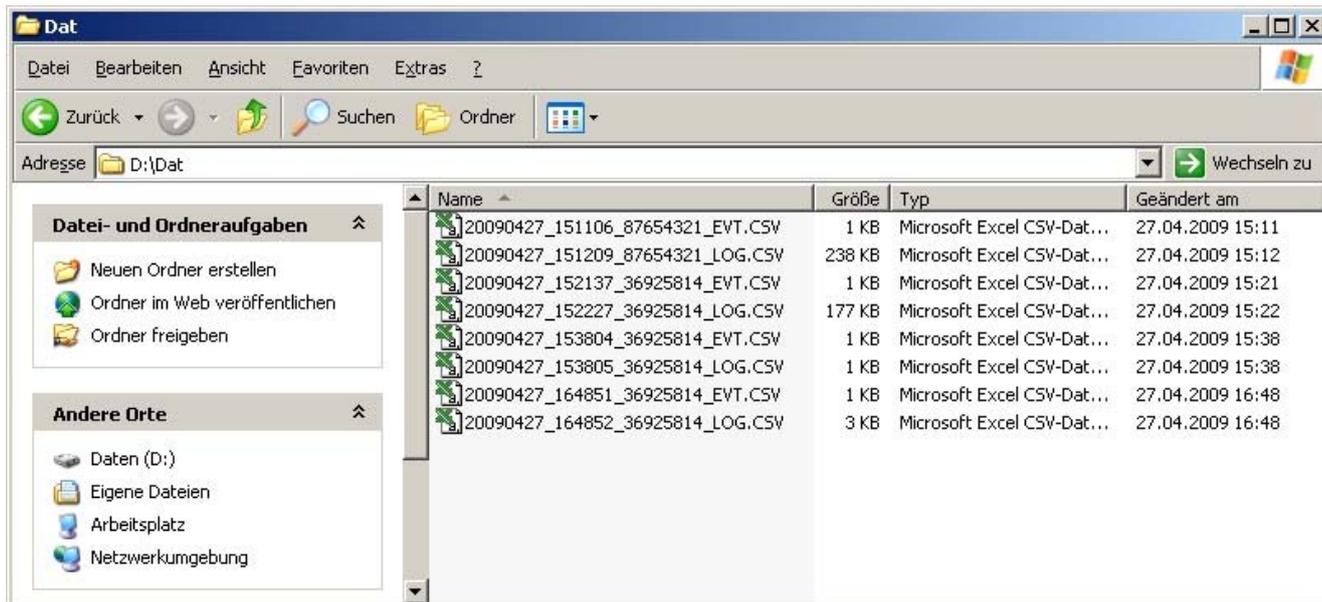
Saving data

All data will be saved automatically in the selected preset directory. The file name consists of following variables:
"<Year><Month><Day>_<Hour><Minute><Second>_<Serial number>_EVT.CSV" for event data.
"<Year><Month><Day>_<Hour><Minute><Second>_<Serial number>_LOG.CSV" for data logger data.

Technical Data

Type:	DI220 Data Interface
Gas supply:	0.5 l/h
Power supply:	USB
Housing:	
Material:	ABS
Dimensions:	100 x 60 x 100 mm (WxHxD)

EU- Declaration of Conformity **GfG Gesellschaft für Gerätebau mbH**

Dockingstation

DI 220

Klönnestrasse 99
D-44143 Dortmund
Tel: +49 (231) 56400-0
Fax: +49 (231) 516313
E-Mail: info@gfg-mbh.com
www.gfg.biz
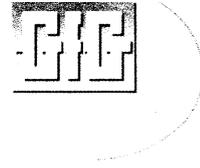
Edited: 10.10.2008   Amended: 11.07.2016

GfG Gesellschaft für Gerätebau mbH develops, produces and sells gas sensors and gas warning devices, which are subject to a **quality management system** as per DIN EN ISO 9001. Subject to supervision by means of a **quality system** audited by the notified body, DEKRA EXAM GmbH, is the production of electrical apparatus of instrumentation Group I and II, categories M1, M2, 1G and 2G for gas sensors, gas detectors, gas warning systems in ignition protection classes explosion- proof encasing, increased safety, encapsulation and intrinsic safety, as well as their measuring function.

The Dockingstation **DI 220** complies with **council directive 2014/30/EU** for electromagnetic compatibility.

The guidelines have been complied with under consideration of the standards mentioned below:

- **Electromagnetic compatibility**
        - Electrical equipment for measurement, control and laboratory use - EMC requirements

General requirements	EN 61326	: 2006
Radio shielding	type class 1	
Interference resistance	type class 2	

The EMC testing laboratory EM TEST GmbH, Kamen has been charged with testing and evaluation of the electromagnetic compatibility.

Always adhere to the safety notes of the operation manual 210-100.35

Dortmund, 12.07.2016

....

H.J. Hübner
President CEO

EG-Kon039.1/Siebrecht