Dockingstation DS404

for Microtector II

- Full automatic function control and bump test
- Meets all requirements of the DGUV Information 213-056 (T021) and 213-057 (T023)
- 4 gas inlets for specific applications
- Advanced instrument for professional users
- Quick function test
- Easy operation
- Friendly charging
- Documentation of the tests carried out

Advanced device for a comprehensive security

The Docking Station DS404 is the professional equipment management system to our gas detector Microtector II. Use of the station is worthwhile, because the time for testing, calibration and documentation is thus drastically reduced.

Safety first!

The user must be able to rely on gas detectors in any application, but high-quality gas sensors can silently become damaged. In order to always ensure the operability, the bump tests and regular functional controls are required. The function controls include calibration and adjustment of the sensors at regular intervals. This must be carried out by a qualified personnel.

Requirements for the use and operation of portable gas detectors

The requirements for the use and operation of gas detectors are described in DIN EN 60079-29-1 (* 1) as well as DIN EN 60079-29-2 (* 2). Due to the standards mentioned above, it is strongly recommended to use daily bump tests and regular executions of calibrations and adjustments with gas. Our test station TS400 is designed for the daily bump tests. The DGUV Informationen 213-057 (T023) -Gas warning equipment for explosion protection and 213-056 (T021) -Gas warning equipment for toxic gases / vapours and oxygen of the BG RCI, on the basis of these standards, a daily bump test and an additional adjustment or calibration at an interval of 4 months. Both requirements can be met quickly and easily with the docking station DS 404.

Quick and easy control

The docking station DS 404 enables the fulfillment of the requirements. The bump test is performed in only 45 secons. For the full function control (adjustment and calibration) only two minutes are required. The tested gas detectors are, therefore, quickly made as ready for use again - and fully automatic. Compared to manual inspection and adjustment, the time and testing preparatory procedure is reduced by more than 50%.

Easy use

Once a gas detector is placed in the station, the bump test starts automatically. Other functions, such as performing a functional check can be activated manually. Even more functions can be accessed using the buttons. The intuitive menu navigation ensures an easy and quick handling. The test run is well understood in the clear display of the gas detector, so that user errors are almost completely precluded. Should the functional check date be reached or exceeded, the function test is automatically initiated after the device has been inserted into the DS404.

Calibration and adjustment according to T021 and T023

The proper implementation can be recognize on the display of the warning device. Successfully completed indicator tests or operational controls are indicated by a green luminous display, any incorrect ones, by a red light of the display. A time interval helps in organizing the test runs. The interval can be adjusted individually at the gas warning device or sent by data transmission via the gas warning device to the docking station. At already configured time intervals, the device remembers each time it is turned on, the display relating bump tests, functions or system controls, in accordance with the T021 and T023.

* 1 requirements for the performance of devices for the measurement of flammable gases
* 2 Gas detectors - Selection, installation, use and maintenance of the devices for the measurement of combustible gases and oxygen

Meets the requirements and documents the tests

Flexible placement

The station can be installed everywhere and only requires little space. No PC is necessary for its operation - which saves costs. Testing of the G450 and G460 is possible with and without connected suction pump and also the testing of the new G888 and G999 units:

Bump test

The bump test includes testing of the following items:

1. If the response of the sensors guaranteed?

2. Is the visual and audible alarms of the gas detector working?

3. Is the alarm thresholds for the gas to be measured reached quickly enough?

Therefore, the following parameters are automatically checked in the bump test:

- Visual alarm
- Audible alarm
- Reaction times to 1st alarm
- Reaction times to 1st alarm
- t_{90} or t_{50} time (individual adjustable)

After each test, a clearly understandable indication of the results is carried and presented on the display of the tested gas detector.

Automatic function control

It is required when the bump test negative conducted was negative or the time interval is reached for a functional check. The docking station automatically performs the following settings:

- zero-point adjustment
- Adjustments of the sensitivity
- The responsiveness of the sensors
- t_{90} or t_{50} time (individual adjustable)

The results are shown in detail on the display of the gas detector.

Complete documentation of up to 45 years

All measurement data can be to up a volume of 2 GB on an SD card to record permanently - during the lifelong service outlet. A logging software is separately sold. The results and data are stored after each test in the docking station.

Thus, no data will be lost even when the gas detector is lost ordamaged.

Effective gas supply

The Docking Station DS404 features, on the back, four inputs for the calibration gas and the zero gas and a gas outlet for discharging the test gas, so that no harmful test gas is discharged into the room. A powerful pump with a flow rate of 0.5 liters per minute sucks the test gases from the gas cylinders via a gas sampling controller. Thus a maximum safety is ensured and any leaks are excluded.

Gentle charging

The docking station DS 404 can be used as a charging station for the gas detectors. The charging function of the station has been optimized to the greatest possible energy saving mode of the battery, to ensure a long life. When inserting the gas detector in the station, the status of the battery is checked:

- When it was loaded for the last time?
- How long was the loading time?
- What loading is neccessary now?

This allows the gas detector to remain in the station without affecting the battery life.

Removal fitting

The removal fitting fits all gas devices offered by the GfG recipients. The valve of the fitting opens and closes automatically when the pump transfers gas to the docking station.

Test gas

The disposable test gas containers made of aluminium or steel are available in different sizes (34 l / 58 l / 110 l). The disposable bottles are handy to manipulate and can be disposed of easily, after having been consumed, as they are environmentally friendly and easily to be disposed of. This only requires an easy to obtain proof of disposal and there are no additional disposal costs involved.

The right accessory for each request

Sturdy carrying case
For easy and safe transportation of test gas cylinders , there is available a practical and robust carrying box. Each box can accommodate two GfG test gas cylinders of all sizes, the extraction fitting and the gas sampling controller.

CO_2 absorber
Suitable, in particular, for examining and adjustment of CO_2 -Sensor datum. A CO_2 -free zero point gas is required. Since the fresh air contains up to 500 ppm of carbon dioxide, it can be released of the interfering gas with an absorption filter.

A support device
For the easy reading of the display, there is a functional support device, available in various dimensions .

TS400 and DS404 , compared	TS400	DS404
Bump Test with Gas	✓	✓
Documentation of the bump tests carried out	✓	✓
12 V Power supply	✓	✓
Operation via 3 keys on the gas meter	✓	✓
Display and documentation at datum, and calibration of gas **before** and **after** calibration / adjustment	-	✓
Integrated data logger (2GB SD Card) Removable SD card	✓ ✓	✓ ✓
Time to carry out the bump test	ca. 20 sec.	ca. 45 sec.
Bump test	semiautomatic	full automatic
Zero-point adjustment Sensitivity adjustment Flushing with fresh air	- - -	✓ ✓ ✓
Load function	optional	✓
Gas supply	manual	automatic
Meets the requirements of the DGUV Information 213-057 (T023) and DGUV Information 213-056 (T 021) of the BG RCI	✓ ✓	✓ ✓

Technical data

Dockingstation DS404

Dimensions:
169 x 125 x 225 mm (H x W x D)

Weight:
1500 g

Power supply:
12 Volts DC

Display:
Status indicator on the illuminated LCD graphic display of the gas meters, alarm LED, real-time display

Connections:
4x Test gas input
(Via hose connector)
1x Zero gas input
(Via hose connector)
1x Gas output
(Via hose connector)
4x connector for pressure switch, 6,3 mm jack
2x RS485

Gas supply:
via a built in, electronically controlled pump with a maximum output of 0,5 l/min

Data logger
up to 2 GB of storage for measurement data to SD card for permanent data record for the lifelong use of equipment (up to 45 years)

GfG Gas Detection UK Ltd

Unit 8 | Griggs Business Centre
West Street | Coggeshall
CO6 1NT | Essex | UK

Tel.: +44 (0) 1376 561463
Fax: +44 (0) 1376 561704

www.gfggasdetection.co.uk
sales@gfggas.co.uk

Dockingstation DS404, Brochure, English
All information in this brochure is subject to technical change without notice in the interest of progress. DS404/ENG/05-2016/1-200. Printed in Germany