

Operating Manual

Gas sampling pump

GS 150



-  Please carefully read these instructions before use!
-  Please consider the safety instructions!
-  Please keep for future reference!



WEEE-Reg.-Nr. DE 93889386

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1 General Note

Read this document carefully and get used to the operation of the device before you use it. Keep this document within easy reach near the device for consulting in case of doubt.

2 Safety

2.1 Intended Use

The device is a low flow rate gas sampling pump for combination with residual oxygen measuring devices for protective gas applications.

The device must be used only according to its intended purpose and under suitable conditions.

The manufacturer will assume no liability or warranty in case of usage for other purpose than the intended one, ignoring this manual, operating by unqualified staff as well as unauthorized modifications to the device.

Any other use or use exceeding this is considered as non-conforming and leads to the expiration of any liability or guarantee claims from the manufacturer.

Use the device carefully and according to its technical data (do not throw it, strike it, ...)
Protect the device from dirt.

2.2 Safety signs and symbols

Warnings are labeled in this document with the followings signs:



Caution! This symbol warns of imminent danger, death, serious injuries and significant damage to property at non-observance.



Attention! This symbol warns of possible dangers or dangerous situations which can provoke damage to the device or environment at non-observance.



Note! This symbol point out processes which can indirectly influence operation, possibly cause incorrect measurement or provoke unforeseen reactions at non-observance.

2.3 Reasonably foreseeable misuse



- This device must not be used at potentially explosive areas!
 - The device must not be used at a patient for diagnosis or any other medical purpose!
 - Do not use these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury or material damage.
- Any failure to comply with these instructions could result in death, serious injury and material damage.

2.4 Safety guidelines

This device has been designed and tested in accordance with the safety regulations for electronic devices. However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advises given in this manual will be adhered to when using the device.

1. Trouble-free operation and reliability of the device can only be guaranteed if the device is not subjected to any other climatic conditions than those stated under "Specification".
If the device is transported from a cold to a warm environment condensation may cause in a failure of the function. In such a case make sure the device temperature has adjusted to the ambient temperature before trying a new start-up.

2. If there is a risk whatsoever involved in running it, the device has to be switched off immediately and to be marked accordingly to avoid re-starting.
Operator safety may be a risk if:
 - there is visible damage to the device
 - the device is not working as specified
 - the device has been stored under unsuitable conditions for a longer time.
 In case of doubt, please return device to manufacturer for repair or maintenance.



3 Product Description

3.1 Scope of supply

The scope of supply includes:

- Pump GS 150, incl. 9V battery block
- Operation manual

3.2 Operation and maintenance advice

• Battery operation:

The device has 2 LED's for status indication of the battery.

- if both LED's are lighting, the battery is full
- if only one LED is lighting, the battery is low and should be changed soon.
- if no LED is on, the battery must be replaced

Note: by very weak batteries, a condition can occur that the LEDs will shine slightly.



The battery has to be taken out, when storing device above 50 °C.

We recommend taking out battery if device is not used for a longer period of time.

- Treat device and sensor carefully. Use only in accordance with above specification. (do not throw, hit against etc.). Protect plug and socket from soiling.

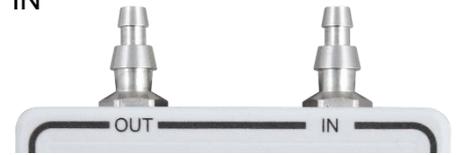


The pump is designed for dust-free gases. Already a small dust particle can lead to a reduction in pumping performance or to a function loss.

We recommend therefore always the use of a filter (e.g., GDZ 29) at the IN port.

4 Connection note

Connect the tube to the measuring object to be sucked to pressure port "IN"



5 Reshipment and Disposal

5.1 Reshipment



All devices returned to the manufacturer have to be free of any residual of measuring media and other hazardous substances. Measuring residuals at housing or sensor may be a risk for persons or environment.



Use an adequate transport package for reshipment, especially for fully functional devices. Please make sure that the device is protected in the package by enough packing materials.

5.2 Disposal instructions



Batteries must not be disposed in the regular domestic waste but at the designated collecting points.

The device must not be disposed in the unsorted municipal waste! Send the device directly to us (sufficiently stamped), if it should be disposed. We will dispose the device appropriate and environmentally sound.

6 Specification

Functional principle:	motorised membrane pump with input/output ports
Process connection:	universal pressure ports for 6 x 1 mm (inside Ø 4 mm) or 8 x 1 mm (inside Ø 6 mm) plastic tube.
Max. under pressure:	approx. 400 mbar
Flow rate:	
free flow:	approx. 280 ml/min
with GDZ 29:	approx. 150 ml/min
Applicable gases:	non-corrosive, dust-free gases, a condensate trap is recommended for gases with high humidity
Working condition:	10 ... +50 °C, 10 ... 95 %RH (non condensing)
Storage temperature:	5 ... +55 °C
Power supply:	9V battery
Battery life time:	approx. 10 hours
Battery status indication:	2 led: battery good / low
Housing:	impact resistant ABS housing
Dimensions:	106 x 67 x 30 mm (H x W x D), without Anschlussstutzen,
Weight:	approx. 160 g (ready for operation)
Directives and standards:	The instruments confirm to following European Directives: 2014/30/EU EMC Directive 2011/65/EU RoHS 2006/42/EG Machinery Directive Applied harmonized standards: EN 61326-1 : 2013 emissions level: class B, emi immunity according to table A.1