

# PAUL-GOTHE-GmbH Bochum

Wittener Straße 82  
D-44789 Bochum



## Manual

### For Heated Mercury-MTP-Probe

Before use check the electrical condition of the appliance. For your safety: Don't connect with the power supply if you can see any damage.

Use this heater only in combination with a regulator for 10 A. Don't use it without any controlled power supply - also not a short period-.

This probe should use only from qualified personnel who, because of their training, experience and position as well as their knowledge of appropriate standards, regulations, health and safety requirements and working conditions, are authorised to be responsible for the safety of the equipment, at all times, whilst carrying out their normal duties and are therefore aware of, and can report, possible hazards.

Paul Gothe GmbH shall assume no liability for damage resulting from improper use, faulty installation, operation, use or maintenance.

#### How to use:



1. Connect Thermocouple with the regulator.  
**Only the NiCr-Ni at the socket for the power supply should use for the temperature controlling of the heater. The others cannot be used and may result in damage.**
2. Connect plug to the power supply at the regulator.
3. Set temperature at the regulator

#### Technical Data

Power supply:	max. 250 V; 48 ... 62 Hz
max. temperature at heater:	500 °C
Isolation-resistance (cold):	≥ 5 MΩ at 500 V-DC
fall. Amperage:	< 0,1 mA at 253 V-AC
material of the heater:	CrNi-Steel
heater isolation:	MgO
Thermocouple (option):	NiCr-Ni type K
Performance:	2000 W, 9 A



#### Demands on the heating controller:

The service life of the built-in heaters should not be shortened by overuse, we recommend a heating controller with automatic soft-start function. With this function can slowly evaporate any moisture from the heater.

The devices should be stored at room temperature and generally dry. If this is not possible, the unit must necessarily heated advance at low power (current limit!): The heater must heat up very slowly and be heated to 80-120°C for 1-2 hours. After this procedure the unit is usable.

We recommend our heating controller with PID control technology.



**Only heating controllers with the corresponding output power may be used. The output must be secured with 10A. Please use only the temperature controller Article No.: 36.022-10 designed for 10 A load. The standard temperature controllers must not be used! Make sure that the overall line is protected when additional consumers are connected to the same line!**

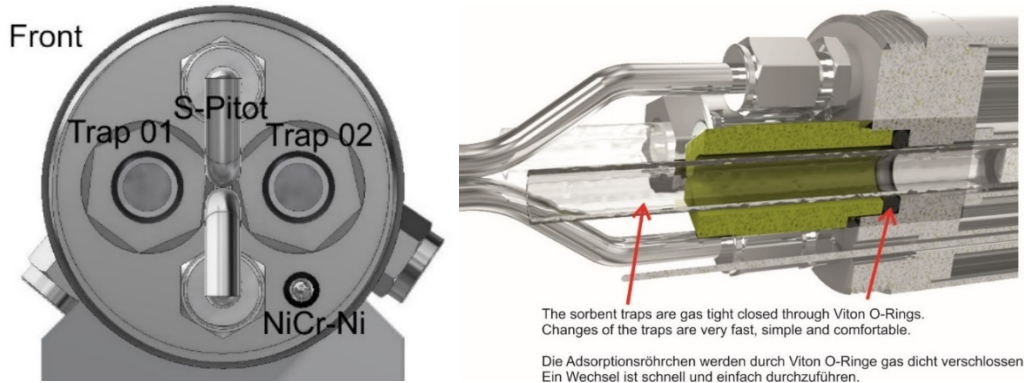
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### Connection front:



Picture 1: On the input side there is the S-pitot pitot tube for flow measurement (see instructions for S-Pitot) and a thermocouple type K (NiCr-Ni) for measuring the channel temperature. Furthermore, there are two screw connections for mounting the adsorption traps in front.

### Mounting Adsorption Traps:

Loosen the screw connection and insert the glass tube. Ensure correct seating of the O-ring. Turn screw connection only hand-tight. Caution! There is a risk of glass breakage if the glass tube is pressed with too much force. Please wear suitable safety gloves.

Picture 2: Front construction



### Connections Rear:

Cutting ring fitting and temperature plugs type K:

In the middle two cutting ring fittings for the S-pitot pitot tube. Right and left cutting ring fitting for the gas through the traps.

Outgoing to the rear in the T-piece cutting ring connection: Temperature plug for the detection of the gas temperature behind the traps. Used to monitor the minimum temperature in the gas flow.

Outgoing to the rear with simple compression fitting: Temperature plug for measuring the gas temperature in the duct (NiCr-Ni at the front of the probe).

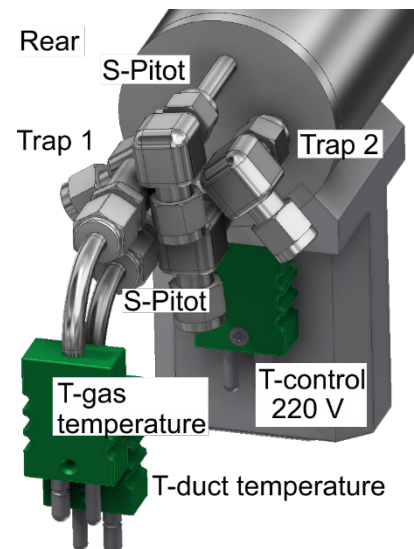
NiCr-Ni plug for temperature control at the socket for the 230 V power supply, these are located 90° to the axis of the suction tube.



Only this NiCr-Ni at the connection for the power supply may be used for temperature control. The others are not suitable and cause damage to the probe.

Use only regulators with a 10 A protected output to the socket for the 230 V supply.

Picture 3: Rear construction of the probe with gas connections and temperature plugs. To control the heater temperature can use only the connection close to the socket for the 230 V power supply.



To protect the Pitot tube, always screw the cover onto the front part of the suction tube.

