

# GREISINGER electronic GmbH

Flow measuring probe for

water  
or air

Operating Manual

## STS 005 STS 020



WEEE-Reg.-Nr.: DE93889386



## GREISINGER electronic GmbH

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## 1 Intended use

The flow measuring probes of the type **STS** are probes for the handheld instruments of the device series GMH 3300. The **STS 005** is suitable for measuring in water and the **STS 020** is suitable for measuring in air.

## 2 Required accessory

For displaying the measured value is a handheld instrument of the type GMH 3330 or GMH 3350 required.

## 3 Safety instructions

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'.
2. General instructions and safety regulations for electric, light and heavy current plants, including domestic safety regulations (e.g. VDE), have to be observed.
3. If device is to be connected to other devices (e.g. via PC) the circuitry has to be designed most carefully. Internal connection in third party devices (e.g. connection GND and earth) may result in not-permissible voltages impairing or destroying the device or another device connected.
4. 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.

### 5. Warning:

Do not use this product as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury or material damage.

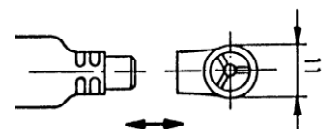
**Failure to comply with these instructions could result in death or serious injury and material damage!**

## 4 Operating and maintain instruction

- The probe are calibrated at free jet condition.  
I.e. the duct for the measurement must have a minimum diameter of 3 x probe-diameter (>45 mm).
  - Avoid moisture, extreme temperatures and vibrations. Do not shake!
  - Strong electromagnetic interference (e.g. transformers, radio transmitting equipment) may affect the accuracy of the measurement.
  - As the probes are highly sensitive measuring instruments, they must be cleaned with very great care. Fibres or other foreign bodies can be carefully removed with fine tweezers. When doing so, take care not to bend or otherwise damage the vanes or the spindle.
- Cleaning agents witch extract the plasticizer from the plastic are never to be used for plastic probes (practically all solvents!).
- We recommend the following to cleaning: running water, soapy water, pure benzene
  - Cleaning example:
    - carefully swish the top part of the impeller back and forth in clean, pure benzene for approx. 10 min.
    - then swish the top part of the impeller back and forth in clean kerosene for approx. 1 min to relubricate the impeller bearings.
    - rub probe dry externally with a clean, dry, fluff-free cloth
    - leave the top part of the impeller to dry for ca. 30 minutes
  - The adjustment of the bearing screws must never be changed. This can result in erroneous measurements.
  - Never allow hard objects to contact rotating impellers!
  - If the rotating impeller is damaged as replacement part a spare sensor head **STE 005** or **STE 020** is available.

Demounting of sensor head: pull snap-on head in axial direction.

Attention: don't distort head!

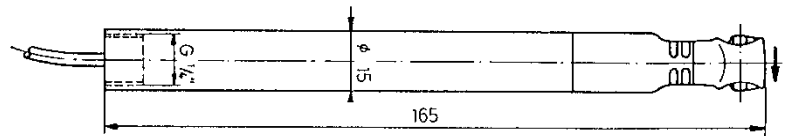


**5 Specification**                      **STS 005**                      **STS 020**

<b>Sensor type:</b>	windmill-type anemometer	windmill-type anemometer
<b>Head:</b>	snap-on head (exchangeable)	snap-on head (exchangeable)
<b>Type spare head:</b>	STE 005	STE 020
<b>Measuring media:</b>	water	air
<b>Measuring range:</b>	0.05 ... 5.00 m/s (water)	0.55 ... 20.00 m/s (air)
<b>Accuracy:</b>	± 3% of measured value ±1% of measuring range	
<b>Permissible angle flow:</b>	±20°, without additional measuring faults	
<b>Nominal temperature:</b>	+25 °C	
<b>Working conditions:</b>	0 ... +70 °C / 0 ... 100 %RH	
<b>Storage temperature:</b>	-20 ... +85 °C	
<b>Device connection:</b>	5 m connection cable with 6-pin Mini-DIN-plug	

**Dimensions:**

Insertion opening:	Ø16 mm
Measuring head:	Ø11 x 15 mm
Length tube + head:	165 mm



**EMC:**                      The **STS ...** have been manufactured in accordance with the regulations concerning EMC (2004/108/EG).  
 Additional error: <0.5%

**6 Disposal instructions**

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