

# HIGH TEMPERATURE MASS FLOW SENSOR GFS-HT800

## Description

Robust high temperature mass flow sensor without moving parts for measuring flow velocity in air and gases as well as determination volume and mass flow. Patented system enables from from 0 m/s. No range limitation at zero point. The compact totally closed metallic sensor tips allows operations at polluted environments and if required easy cleaning. Furthermore the electrochemically polished tip makes it suitable for high quality application required in the pharmaceutical industry.

## GFS-HT800



Sensor with programming and display unit to show measured values, error reports and if required change factory calibration setting.

## Merkmale

- Mass flow measuring
- Pressure - and temperature compensated
- Low pressure drop
- Easy mounting
- Programmable display unit

## Applications

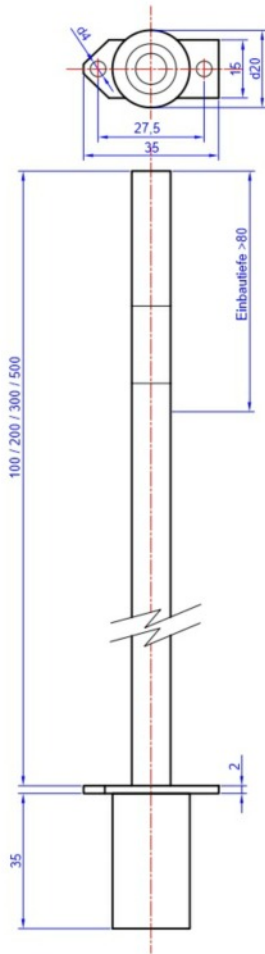
- Volume flow in tubes
- Drying systems
- Burner control
- Volume control systems
- Exhaust air systems

## Technica data

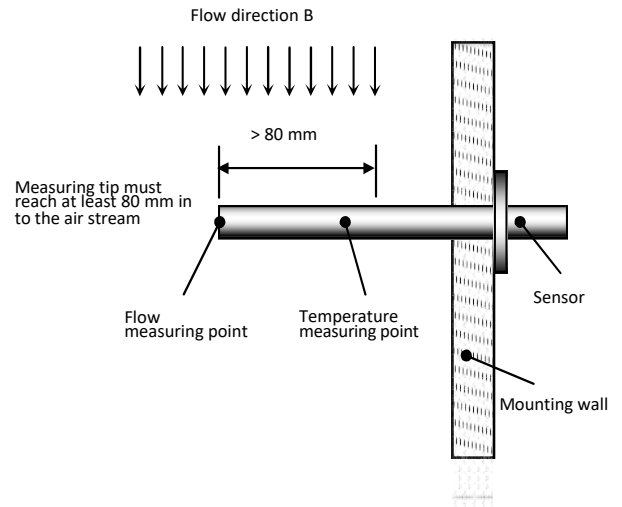
<b>Measuring range flow</b> @ 20 °C/1.013,25 hPa	a) 0 ... 20 m/s b) 0 ... 50 m/s (other range on request)
<b>Measuring range temperature</b>	0 ... 700 °C
<b>Media</b>	Air, nitrogen other gases on request
<b>Measuring tolerances flow</b> Version A, function tested Version B, calibrated	± 10% ± 5%
<b>Measuring tolerance temperature</b>	± 5%
<b>Repeatability flow</b>	< 0.5 %
<b>Response time (t<sub>90</sub>) flow</b>	90 s
<b>Response time (t<sub>90</sub>) flow</b>	30 s
<b>Operating temperature</b> Measuring tip Electronics	-20 ... + 700 °C + 5 ... + 60 °C
<b>Operating pressure (tip)</b>	700 ... 40.000 hPa
<b>Output (potential free)</b>	4 ... 20 mA (Load ≤ 600 Ω) 0 ... 10 V (Load ≥ 10 kΩ)
<b>Supply voltage</b>	22 ... 26 VDC
<b>Supply current</b>	1.4 A
<b>Electrical connector</b> Analogue output Supply voltage	Plug M12 4 pole Plug M12 2 pole
<b>Dimensions</b> Measuring tip Mounting bracket (optional) Measuring tip cable length Electronic case	See drawing overleaf See drawing overleaf 3 m 121 x 125 x 36,5 154 x 135 x 36,5 mm (with bracket)
<b>Materials</b> Measuring tip Mounting bracket Compression fitting Measuring tip cable  Electronic case	Chrome-nickel 1.4541 / ceramics Chrome-nickel 1.4301 Chrome-nickel 1.4571 Nickel with fibre glass isolation for temperatures up to 400 °C Aluminium
<b>Protection class</b>	Measuring tip IP 67 Electronics IP 50

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## Dimensions measuring tip



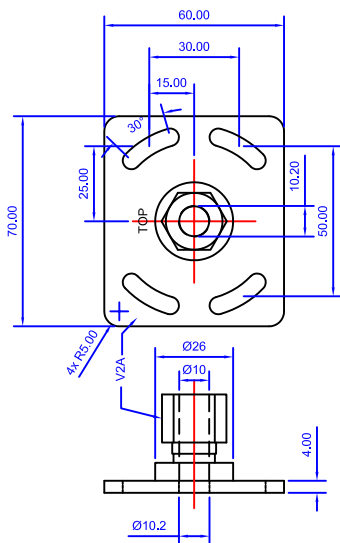
## Sensor mounting



### Attention:

Specifications are valid for laminar flow. At measuring point therefore sufficient straight inlet and outlet distances have to be considered. Distances are depending on disturbance (i.e. reduction, single/multiple bows, valves etc.) and should be at least  $2 \dots 34 \times D$  (tube diameter)

## Mounting bracket with compression fitting



## Mounting orientations

