HWP10/xx Hotwire Probe

Description

Hotwire probes of the HWP10/xx series can be used for dynamic measurements of air-flow velocity or temperature.

The most common application of the sensors is the use as hotwire anemometer in combination with a CTA-bridge (aCTA or eCTA). With this setup airflow velocitiy measurements with a high time resolution are possible. The probes are calibrated in a range between 0 and 50m/s. Higher velocities are possible. Fluctuations in the flowfield with a maximum frequency of 20kHz can be detected.

Due to the measurement principle, the probes are particularly suitable for low flow velocities. The probes can be used in other gases as well if a calibration in the medium is possible.

When used in combination with a CCT-bridge (e.g. eCCT) the sensor can be used as fast responding thermometer. Fluctuations of temperature up to 500Hz can be detected. A typical application is the analysis of mixing processes e.g. in heating systems or air conditionings.

Particles in the flow may damage the sensor. The probes should only be used in clean or filtered gases.

Order options (HWP10/Angle Wire-Shaft)
HWP10/90
HWP10/00
HWP10/45
HWP10/90G
Other shaft lenght available on request

Technical data

Surrounding conditions	
Fluid	air, other non-corrosive gases possible
Humidity	not condensing
No particles, no pollution, no explosive gases	
Connectors	
Plug	Binder 711 2-pol
Cable	ø 3.2 mm, length 80 cm (without shaft)
Wire	
Dimensions	d=10µm, l=4mm
Material	tungsten, gold-plated

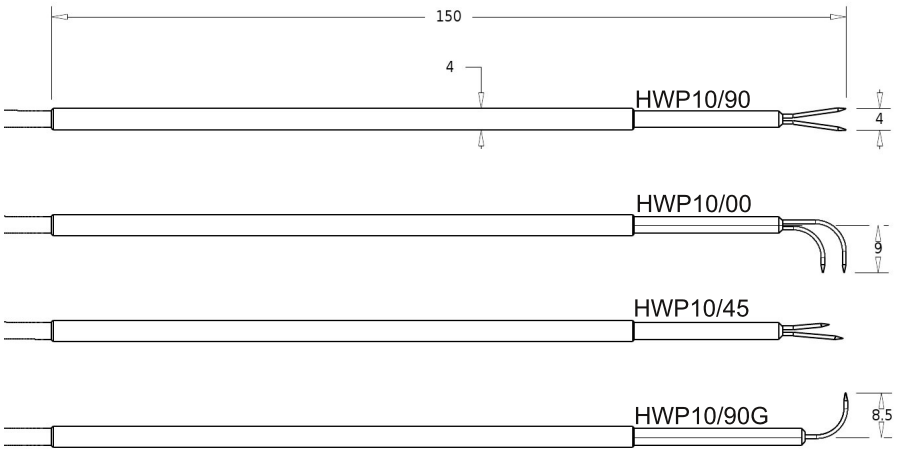
Application as velocity sensor (eCTA/aCTA)

Velocity range	0-50m/s
	>50m/s with special calibration
Temperature range	-10...70°C (up to 100°C possible)
Velocity 20-50m/s	0,1m/s + 0,5%v.M. (typ.)
Velocity 0 - 20m/s	1%v.M. (typ.)

Application as temperature sensor (eCCT)

Temperature range	-10...70°C complete probe
	ceramic tip up to 250°C
Measurement accuracy	+/- 0.5° C

Dimensions



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