

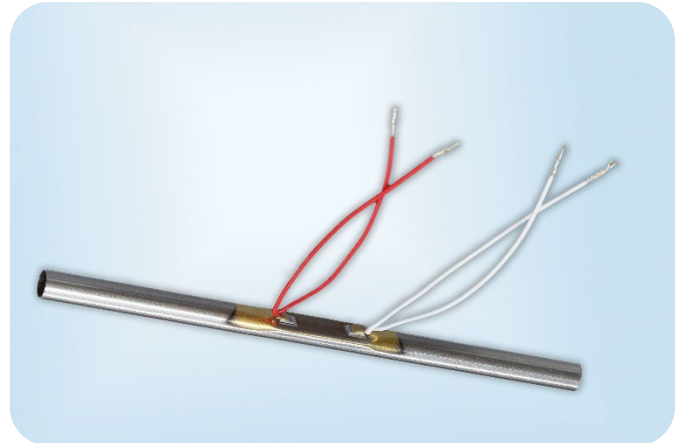
Out of liquid

Thermal mass flow sensor

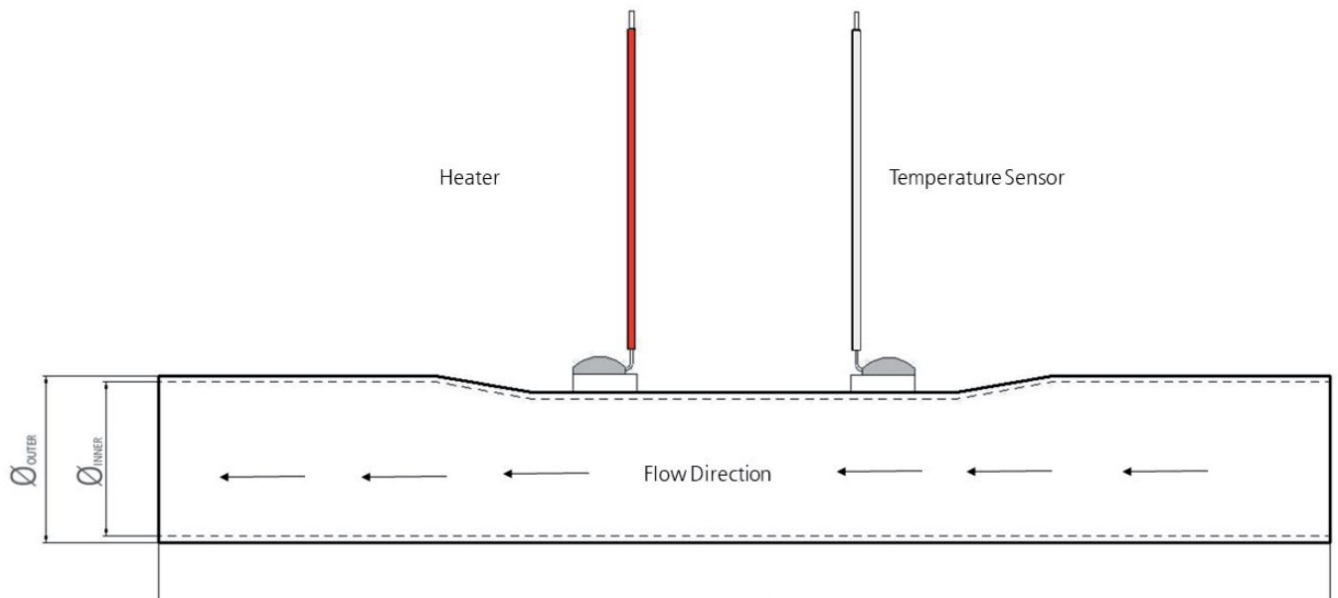
Optimal for flow applications in aggressive liquids

Benefits & characteristics

- Suitable for aggressive liquids
- No contact between sensor and liquid
- High chemical resistance
- Simple flow switches possible



Illustration¹



¹ For actual size, see dimensions



Technical sensor data

Tube dimensions (L x Ø _{OUTER} (x Ø _{INNER}) in mm):*	40.0 x 4.0 (x 3.8)
Operating temperature range:	-50 °C to +150 °C The temperature range has an impact on the accuracy, depending on variations in the thermal properties of flowing media
Heater resistance:*	R _H (0 °C) = 50 Ω (red wires)
Temperature sensor resistance:*	R _s (0 °C) = 1000 Ω (white wires)
Operating measuring range:	0 ml/min to 3000 ml/min (4 m/s)
Characteristics curve (TCR):	3850 ppm/K
Accuracy:	IEC 60751 F0.6 (class C)
Sensor wire:*	Cu/Ag, stranded wires PTFE isolated, AWG 30/19, 50 mm
Sensor dimensions (L x W x H x LW):	2.3. x 2.0 x 1.3 mm
Tube Material:*	Stainless steel 1.4301/304 *Customer-specific alternatives available

Flow performance

The following values are viewed as typical and achieved in laboratory conditions. The medium was de-ionized water.

Measurement range:	0 - 20 kg/h (laminar flow profile) 20 - 200 kg/h (turbulent flow profile)
Sensitivity:	<0.1 m/s
Response time t ₆₃ :	< 500 ms, dependent on electronics (used average determination)
Accuracy:	Typically 3% of measured value (depending on electronics & calibration)
Temperature sensitivity (uncomp.):	<0.3% /K (depending on electronics and calibration)
Maximum heating range:	0.75 W
Overtemperature (CTA-mode):	10 - 15 K (recommended), max. 30 K

Order information

Description	Product Name	Order code	Additional Documents
OOL sensor	P1K0/050.232.2K.C.050.M.U.S	104171	
OOL Sensor Evaluation Kit	Flow Eval Board FS/OOL + OOL liquid sensor	104021	QSGF_Demo_Board_E



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