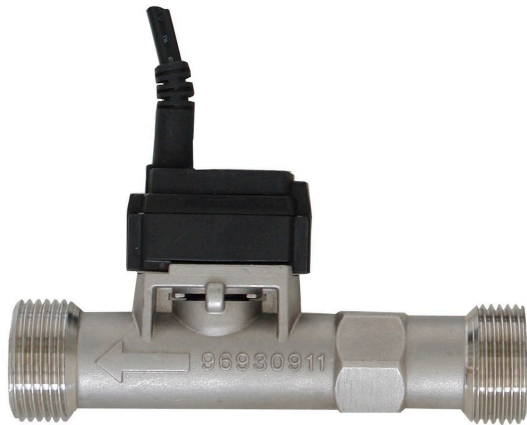


Flow

Flow sensors for liquids FVA 645 GVx

Variant in stainless steel without any moving parts, with integrated temperature measuring



- Measuring section in stainless steel
- Application in systems with laminar flow, no pressure surges, no air pockets, no suspended solids
- Without any moving parts
- Integrated temperature measuring
- Low pressure loss
- Wide temperature range
- High-speed reaction time
- Using with water and water-glycol mixture
- For heat output measurement in heating systems and cooling plant

Technical Data:

Flow		Suitable conditions	
Measuring principle	Pressure pulsation Kármán vortex street	Media	Water, water-glycol (max. 42 % glycol)
Measuring range	see variants	FVA645GV12QT/40QT	Viscosity < 4 mm ² /s,
Accuracy	using water as medium at 0 to +100°C ±1.5 % of final value	FVA645GV100QT/200QT	Viscosity < 2 mm ² /s)
FVA645GV12QT/40QT:	by water-glycol (42 %) 30 to +100°C (Viscosity < 4 mm ² /s) ±5 % of final value	Temp. of medium	0 to +100 °C
Resolution	see variants	Ambient temperature	-25 to +60 °C
Reaction time (63 %)	< 1 s (< 3 s for FVA645GV12QT)	Ambient humidity	up to 95 % RH, non-condensing
Temperature		Electrical connections	
Measuring range	0 to +100 °C	Output signal	2x 0.5 to 3.5 V
Accuracy	±1 K at +25 to +80 °C ±2 K at 0 to +100 °C	Power supply	5 VDC (±5 %), <10 mA via ALMEMO® connector
Resolution	0.5 K	Connection	Sensor with 2.9-meter connecting cable and ALMEMO® connector
Reaction time (63 %)	<1 second under flow conditions 50% of final value	Fitting length	
Process connection	2x male thread see variants	see variants	
Pressure	10 bar (bursting pressure >16 bar)	Materials (in contact with media)	
Pressure loss	0.1 bar, typical under flow conditions, 50 % of final value	Corrosion-resistant coating EPDM, PPS, PPA 40-GF	
		Pipe piece	Stainless steel 1.4408; (inside pipe PPA 40-GF)

Variants

Sensor for flow rate and temperature over a measured section, including ALMEMO® connecting cable, 2.9 meters

Measuring range	Resolution	Process connection	Fitting length	Order no.
1 to 12 l/min	0.06 l/min	G 3/4" male thread	ca. 110 mm	FVA645GV12QT
2 to 40 l/min	0.2 l/min	G 3/4" male thread	ca. 110 mm	FVA645GV40QT
5 to 100 l/min	0.5 l/min	G 1" male thread	ca. 129 mm	FVA645GV100QT
10 to 200 l/min	1.0 l/min	G 1 1/4" male thread	ca. 137.5 mm	FVA645GV200QT

Factory calibration KV91xx flow for sensor (see chapter Calibration certificates)