

Thermoelectric Flow Sensor FV A605 TA



- Probe tube with heated miniature thermistor for flow measurement and precision NTC resistance for automatic compensation.
- Evaluation electronics are located in a separate sensor transmitter module.
- High accuracy as a result of integrated temperature compensation and individual calibration in wind tunnel, with laser Doppler anemometer as reference system.
- Response time only 2s for smoothing the measured value indicated, optionally without smoothing with 100ms response time.
- Suitable for measuring small flow velocities in gaseous substances, particularly for control systems and monitoring.
- Typical applications include comfort index measurements, HEVAC applications, environmental technology, clean room technology and process measuring and control technology.

Technical Data

Electronics Box with Sensor		Sensor length:	
Measuring range:		FV A605 TAx:	300mm
FV A605 TA1(O)	0.01 to 1m/s	FV A605 TAxO	310mm
FV A605 TA5(O)	0.15 to 5m/s	Sensor cable length:	1.5m
Resolution:		Storage temperature:	-30 to +90°C
FV A605 TA1(O)	0.001m/s	General Technical Specifications	
FV A605 TA5(O)	0.01m/s	Measurement medium:	dry air or inert gases
Accuracy:		Response time:	
FV A605 TA1(O)	±1.0% of final value and ±1.5% of meas. value	FVA605TAxD	smoothened, 1 τ = 2s
FV A605 TA5(O)	±0.5% of final value and ±1.5% of meas. value	FVA605TAxU	not smoothened, 1 τ = 100ms
Nominal conditions:	22°C, 960hPa Flow in the marked direction	Power supply:	through ALMEMO® device (approx. 7... 12V)
Automatic temperature compensation:	effective in range 0 to 40°C	Current consumption:	approx. 70mA
Temperature influence:	±0.5% of fin. value/°C	Output signal:	0 ... 1V, linearised, load resistance min. 10kohms
Sensor		Housing:	
Head size:	Ø 8mm	Dimensions:	100 x 60 x 35mm (L x W x H)
Shaft:	Ø 15mm	Protection system:	IP 40 (aluminium housing)
Operative range:	0 to 40°C	Weight:	approx. 250g
Angle of attack:		Operating temperature:	0 to 40°C
FV A605 TA1/TA5	±30°	Storage temperature:	-30 to 90°C
FV A605 TA10/TA50	±180°	Air humidity:	0 ... 90% r.H., non-condensing
Inlet opening:		Adjusting reference:	laser Doppler wind tunnel, adjustment at 22°C/approx. 960hPa, (certificate according to SN EN 45001)
FV A605 TAx:	9mm		
FV A605 TAxO:	protecting cage 110mm		

Types (incl. clamping holder and ALMEMO® connecting cable 1.5m long)

	Order no.
Unidirectional (sensitive in one direction) with protected measuring tip	
Measuring range up to 1m/s, smoothened	FVA605TA1D
Measuring range up to 5m/s, smoothened	FVA605TA5D
Measuring range up to 1m/s, not smoothened	FVA605TA1U
Measuring range up to 5m/s, not smoothened	FVA605TA5U
Omnidirectional sensitive tip with protecting cage (Ø110mm) including carry-case	
Measuring range up to 1m/s, smoothened	FVA605TA10D
Measuring range up to 5m/s, smoothened	FVA605TA50D
Measuring range up to 1m/s, not smoothened	FVA605TA10U
Measuring range up to 5m/s, not smoothened	FVA605TA50U

DAkKS or factory calibration KV90xx, air flow, for sensor or measuring chain (sensor + device) (see chapter „Calibration certificates“).
DAkKS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.