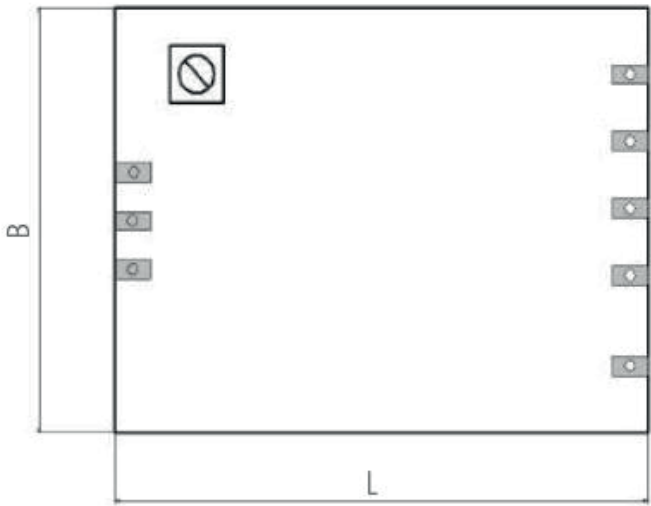


DATA SHEET

Flow module Optimal for gas flow sensor evaluation

Description



Technical data

Flow module 0555 0001	
Operating measuring range	0...50 m/s
Operating temperature range	-40...85 °C
Temperature sensitivity	>0,5%/K (dependent on calibration)
Accuracy	< 5% of the measured value (dependent on calibration)
Connection	Löt pads auf PCB
Heater	$R_H(0^\circ\text{C}) = 45 \Omega \pm 1\%$
Reference element	$R_S(0^\circ\text{C}) = 1200 \Omega \pm 1\%$
Voltage range (nominal)	5 VDC $\pm 5\%$ (internal main voltage is 10 V)
Analog output, non linear	0 V (2) to 10 V; (operating point at still air = 3,5 V)
Warm-up time	<30 s
Dimensions	(LxW) 45x25 mm
Art.- no.	0555 0001

Pin assignment

Pin	Assignment
1	Flow output
2 + 3	
4	GND
5	$U_{\text{supply}} + 5 \text{ V}$
6	Temperature sensor
7	Heater
8	GND
9	Potentiometer



Features

- Easy to use plug @ play module (not calibrated)
- Simple CTA (Constant temperature anemometer)
- Simple gain adjustment
- No microprocessor or software influenced signal
- Customer specific sensor available upon request

Areas of application

- Gaseous measuring media
- Building automation
- Automotive engineering
- Medical engineering
- Device monitoring
- Cooling devices
- Food industry

Adjustment procedure (if necessary)

1. Power up the module with 5 VDC (min. 200 mA)
2. Connect multimeter to "flow output"
3. Adjust potentiometer for an output signal of about 3.5 V DC at flow = 0
4. Produce a well-known flow e.g. 10 m/s (with reference, for example a mass flow controller)
5. Measure voltage at output (should be in the range of 5 V DC to 7 V DC)
6. Calculate the voltage difference between 0 m/s and 10 m/s (e.g. 2.8 V DC)
7. The signal is the non linearised output signal > 0 m/s to 10 m/s = 3.5 V DC to 6.3 V DC

The signal then can be offset adjusted and linearised with software on target system like a microcontroller, LabView, MatLab etc.