

Air flow measuring transducer



GSMU 1020 B5 GSMU 1020 C5

Properties

- 3 measuring ranges integrated in each device
- selection between 2 different response times
- high accuracy
- almost independent of flow direction
- shock resistant
- resistant to pollution

Application

- air conditioning and ventilation technology
- process and environmental technology

Measuring principle: no moving parts. Hot-film anemometer principle.

Specification

Measuring range flow:

GSMU 1020.: 0...10 m/s, 0...15 m/s and 0...20 m/s
Measuring range can be set by means of jumper.

Output signal: 0 - 10 Volt (Iout < 1.0 mA) or
4 - 20 mA (Ri < 450 Ohm)

Measuring range can be set by means of jumper.

Measuring accuracy: (at 20 °C, 45 %RH, 1013 hPa)

GSMU 1020: 0 ... 10 m/s: ± 0,2 m/s ± 3 % of measured value
0 ... 15 m/s: ± 0,2 m/s ± 3 % of measured value
0 ... 20 m/s: ± 0,2 m/s ± 4 % of measured value

Response time: T₉₀ (at 10 m/s): typ. 4 s or 0.2 s

Response time can be set by means of jumper.

Dependency on flow direction: < 3 % of measured value at $\Delta\alpha < 10^\circ$

Voltage supply: AC / DC ±20%, max. 150 mA

max. load: 500 Ohm

Connection: screw-type terminals up to 1.5 mm²

Operating temperature: -10 ... +50 °C

Storage temperature: -20 ... +60 °C

Housing: 80 x 80 x 35 mm (H x W x D)

Material: ABS

Protection rating: IP65 (electronic box)

Sensor tube: length = 200 mm (+18 mm for sensor head), Ø 12 mm

GSMU...B5: sensor tube permanently connected to housing

GSMU...C5: sensor tube connected to housing via cable (approx. 1 m long)

Other tube or cable lengths upon request.

EMC: Conforming to  acc. to DIN EN 50081-1 and DIN EN 50082-2

Accessories

GNG 24/150 power supply: 24 Vdc, 150 mA

GNT 0520 mains transformer: 230V~ to 24V~,
with mounting clamp and screw-type terminals.
Dimensions approx. 62 x 56 x 32.5 mm

Miniature Air Velocity Transmitter



GSMU 575

Properties

The transmitter is for measuring air velocity. The measurement method is based on the hot-film anemometer principle, for that purpose, a special thin-film sensor element has been developed. An accurate and reliable determination of the air velocity depends on the correct positioning of the sensor probe in the air stream. Accurate measurements are only possible if the sensor probe is installed where there is no turbulence.

Application

- heating, ventilating
- air conditioning technology
- supply air control of ovens

Specification

Working range: 0...20 m/s

other upon request

Output signal: 0...10 V (max. 1 mA)

Accuracy Velocity: at 20°C / 45 % RH, 1013 hPa, at 1...20 m/s
1...20 m/s: ±(0,4 m/s + 6% of m.v.)

Response time: (bei 10m/s T₉₀) typ. 4 s

Power supply: 19...29 V DC

Power consumption: max. 70 mA bei 20 m/s

Temperature range: working temperature: -20...60°C

storage temperature: -30...60°C

Connection: 0,5 m cable, PVC 3 x 0,25 mm²,
wire end ferrule

Electromagnetic Compatibility: EN61326-1

EN61326-2-3

Housing: polycarbonate, Length: 120 mm, Ø 12 mm

Protection class: IP20 (measuring head), IP40 (housing)

Accessories

GNG 24/150 power supply: 24 V DC, 150 mA