

Psychrometer – Gas moisture meter, model CMZG11

Application

The meter allows indirect moisture measurement, relative humidity

and gas density in flow channels, in dust removing equipment and ventilation systems and in enclosed rooms such as: sports halls, warehouses, workplaces. Gas humidity is determined by psychrometric method, based on absolute pressure values measured, gas temperature and wet-type temperature sensor. This meter is with free, open connecting stub functions as barometer. **It can operate in aggressive environment.**



Meter construction

Piezoresistive sensor in bridge circuit has been used for pressure measurement. Owing to built-in microprocessor system, this device is individually calibrated, linearized and thermally compensated within the temperature range of 0 ÷ 45 °C. The system measures absolute pressure values within the range of 500 ÷ 1500 hPa with uncertainty ±3 hPa, complying with normalisation requirements contained in PN-Z-04030-7:1994 „Measurement of the concentration and mass flux of dust in waste gases by the gravimetric method.” Pt-100 Resistive sensors are used to temperature measurement. This device is fitted with accumulator and internal power supply system.

Technical data

- Measuring range:
 - Absolute pressure : 500 ÷ 1500 hPa
 - Temperature: 0 ÷ 200 °C
- Indication resolution:
 - Absolute pressure : 0,1 hPa
 - Temperature: 0,1 °C
 - Relative humidity: 0,1 %
 - Moisture degree: 0,1 g/kg
 - Gas density: 0,01 kg/m³
- Expanded indication uncertainty:
 - Absolute pressure: ±3 hPa
 - Temperature: ±0,05 % of indicated value
- Measurement frequency: 1,5 Hz
- Meter working temperature range: 0 ÷ 50 °C
- Power supply: own accumulator or from external power supply adapter 12V/250mA
- Dimensions (height x width x length): 45 x 85 x 150 mm
- Weight without external power supply adapter: 0,45 kg