

Active air speed transmitter

HD103T.0

The HD103T.0 measures air speed by using an omnidirectional hotwire probe. It is equipped with three configurable analogue outputs: 4...20mA and 0...20mA current outputs and 0...10Vdc voltage output (0...1Vdc or 0...5Vdc outputs can be supplied on request). The output type can be chosen by using the jumpers inside the instrument. The sensor set on the top of the probe is very delicate and must be protected with the special frame provided with the instrument. During transportation, the sensor is closed into a cylinder screwed on the top of the probe: during installation, unscrew this cylinder and screw the protection frame in its place. The relation between output range and input range (for both air speed and temperature) is fixed: the output minimum and maximum values are associated with the minimum and maximum values of the input variables.



Technical specifications		Notes
Air speed measuring range	0.05...5m/s	
Air speed accuracy in the range 0...0.99m/s in the range 1...5m/s	±0.04m/s ±0.2m/s	at 50%UR and 1013hPa
Temperature measuring range	-20...+80°C	
Temperature accuracy in the range 0...70°C remaining range	±0.3°C ±0.4°C	
Outputs (for both temperature and air speed)	4...20mA 0...20mA 0...10Vdc	0...5Vdc and 0...1Vdc outputs on request
Load resistance	$R_L < 500\Omega$ $R_L > 100k\Omega$	for current outputs for voltage outputs
Power supply	24Vac ±10%, 50...60Hz	110Vac or 230Vac on request
Operating temperature electronics probe	-5...+50°C -20...+80°C	
Compensation temperature	0...+80°C	
Storage temperature	-10...+80°C	
Electronics Protection degree	IP67	
Sensor working conditions	Clean air, RH<90%	
Case dimensions	120 x 80 x 55	Without probe
Probe cable length	L=5m	

Installation notes

- Select the air speed and temperature **output type** by using the jumpers set on the board.
- The probe must be used with clean air only and humidity below 90%.
- The instruments are factory calibrated and no further adjustments are required.
- Each instrument is calibrated with its probe. Don't mix up the probes and instruments: the calibration will be wrong.

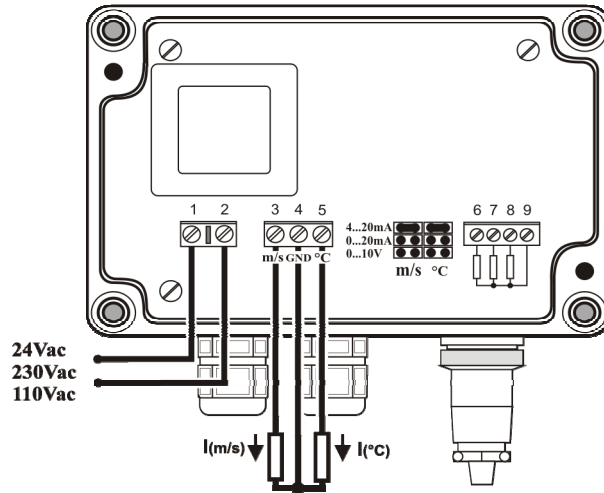
Electrical connections

Power supply

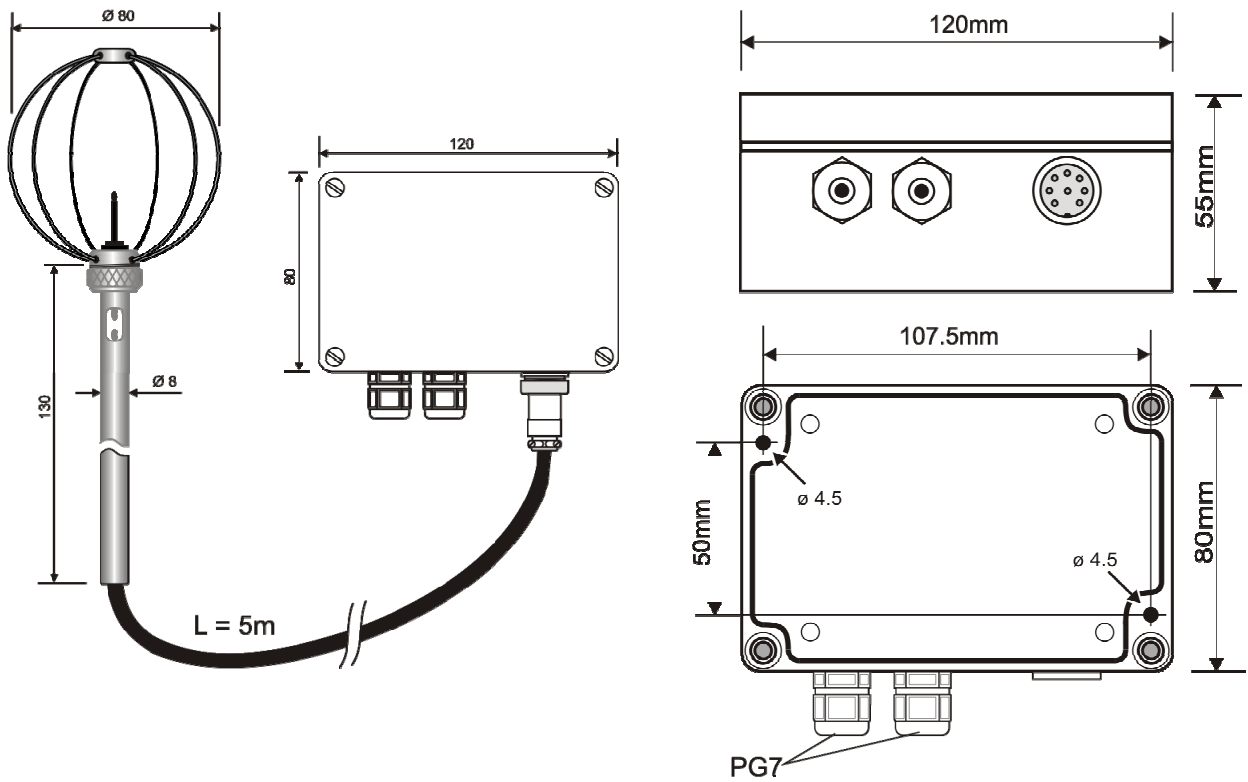
Power the instrument at the voltage shown in the electrical specifications.

Analogue output

The output signal comes from *m/s* and *GND* terminals for air speed, from $^{\circ}\text{C}$ and *GND* for temperature.



Dimensions



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HD103T.0 Active air speed and temperature transmitter. Analogue outputs: 4...20mA, 0...20mA and 0...10Vdc selected by jumper. Omnidirectional probe with wired protective globe $\varnothing=80\text{mm}$ connected to electronics through a 5-meter cable. Air speed range 0...5m/s. Temperature output range -20...+80°C. Power supply 24Vac (115 and 230Vac on request). Probe working temperature -20°...+80°C, Electronics working temperature -5...+50°C.