



Tursdale Technical Services Ltd
Unit N12B
Tursdale Business Park
Co. Durham
DH6 5PG
United Kingdom
Phone: +44 (0) 191 377 3398
Fax: +44 (0) 191 377 3357
info@tursdaletechnicalservices.co.uk
<http://www.industrial-needs.com/>

MANUAL PCE-G1





1. Application	3
2. Technical data	3
3. Measurement.....	3
4. Fitting the device to a wall	3
5. Remarks	3
6. Humidity templates – Calibration and Testing	3
7. Guarantee and Service.....	4

1. Application

PCE-G1 is a stationary microprocessor based device measuring relative air humidity and temperature. The results are presented on a two-digit big (100 mm high) LED display, alternately humidity (10 sec.) and temperature (2 sec.). The instrument is especially useful for monitoring technical processes where air humidity and temperature are of high importance.

2. Technical data

	Humidity	Temperature
Range	10% - 95% RH	0°C - 60°C
Sensor type	capacitance	resistance
Display	LED, 2 digits	
Response time T ₉₀	1 min.	
Accuracy	± 2%	± 1°C
Power	220V, 50Hz	
Size	175x250x75 mm	

3. Measurement

First connect the sensors to the device. The humidity sensor wire and socket are marked "1". The temperature sensor wire and socket are marked "2". The length of the wires has significant influence on the results and therefore cannot be changed. Plug the instrument into a power socket. After several seconds the results of humidity and temperature will be displayed on the LED display.

4. Fitting the device to a wall

The device can be fitted to a wall after removing the transparent front panel. There are four mounting holes available in the four corners of the device. After installation put the transparent front panel back on.

5. Remarks

- 5.1 Do not allow the cold humidity sensor to come in contact with warm and humid air. This causes condensation and totally falsifies the results. Condensation does not damage the sensors nor does it change its characteristic.
- 5.2 Humidity sensor is not resistant to acetone or other chemical solvents.
- 5.3 If the filter or sensors become dusted wash it gently with alcohol and let to dry. Mechanical cleaning is not allowed as it may damage the filter or cause scratches to the sensors.

6. Humidity templates – Calibration and Testing



To calibrate and test the PCE-G1 the manufacturer uses a high quality humidity generator DGW-2 which was certified by the National Institute of Weights and Measures in Warsaw.

A periodic testing of the operation of the PCE-G1 can be done using special saturated salts solutions or humidity generators. Testing and calibration can be done by the producer or other specialized institution. It is recommended to test and calibrate the instrument every 12 months.

Testing can also be done by comparing the results given by PCE-G1 with the results of other template humidity meter. If there is a significant difference the instrument can be adjusted. Adjusting can be done by turning a potentiometer using a small screwdriver. The potentiometer is located below a hole in the right-hand side of the casing. Turning it clockwise decreases the humidity results, anti-clockwise – increases the humidity results.

7. Guarantee and Service

TANEL Electronics warrants the Humidity and Temperature Meter PCE-G1 to be free from malfunction and defects in both materials and workmanship for one year (12 months) from the date of purchase.

If the Humidity and Temperature Meter PCE-G1 does not function properly during the warranty period due to defects in either, materials or workmanship, our company will, at its option, either repair or replace the instrument without charge, subject to the conditions and limitations stated herein. Such repair service will include any necessary adjustments and replacement part.

Limitations

This warranty becomes null and void if you fail to pack your PCE-G1 in a manner consistent with the original product packaging and damage occurs during product shipment.

This warranty does not cover: circumstance beyond our company's control; service required as the result of unauthorized modifications or service; misuse, abuse; failure to follow our company operating or maintenance instructions.

Repair or replacement without charge is our company's only obligation under this warranty. Our company will not be responsible for any special, consequential or incidental damages resulting from the purchase, use, or improper functioning of this equipment regardless of the cause. Such damages for which our company's will not be responsible include, but are not limited to, loss of revenue or profit, downtime costs, loss of use of the equipment, cost of any substitute equipment, facilities of services, or claims of your customers for such damages.

Guarantee

The manufacturer guarantees the correct functioning of the Humidity and Temperature Meter PCE-G1 under normal use for a period of 12 months.

Serial number

Production date

In this direction will find a vision of the measurement technique:
<http://www.industrial-needs.com/measuring-instruments.htm>

NOTE: "This instrument doesn't have ATEX protection, so it should not be used in potentially explosive atmospheres (powder, flammable gases)."