

User Manual

PCE-EMD 5, PCE-EMD 10 Large Display



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski, русский, 中文) can be found by using our product search on: www.pce-instruments.com

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1 Safety notes

Please read this manual carefully and completely before you use the device for the first time. The device may only be used by qualified personnel and repaired by PCE Instruments personnel. Damage or injuries caused by non-observance of the manual are excluded from our liability and not covered by our warranty.

- The device must only be used as described in this instruction manual. If used otherwise, this can cause dangerous situations for the user and damage to the meter.
- The instrument may only be used if the environmental conditions (temperature, relative humidity, ...) are within the ranges stated in the technical specifications. Do not expose the device to extreme temperatures, direct sunlight, extreme humidity or moisture.
- Do not expose the device to shocks or strong vibrations.
- The case should only be opened by qualified PCE Instruments personnel.
- Never use the instrument when your hands are wet.
- You must not make any technical changes to the device.
- The appliance should only be cleaned with a damp cloth. Use only pH-neutral cleaner, no abrasives or solvents.
- The device must only be used with accessories from PCE Instruments or equivalent.
- Before each use, inspect the case for visible damage. If any damage is visible, do not use the device.
- Do not use the instrument in explosive atmospheres.
- The measurement range as stated in the specifications must not be exceeded under any circumstances.
- Non-observance of the safety notes can cause damage to the device and injuries to the user.

We do not assume liability for printing errors or any other mistakes in this manual.

We expressly point to our general guarantee terms which can be found in our general terms of business.

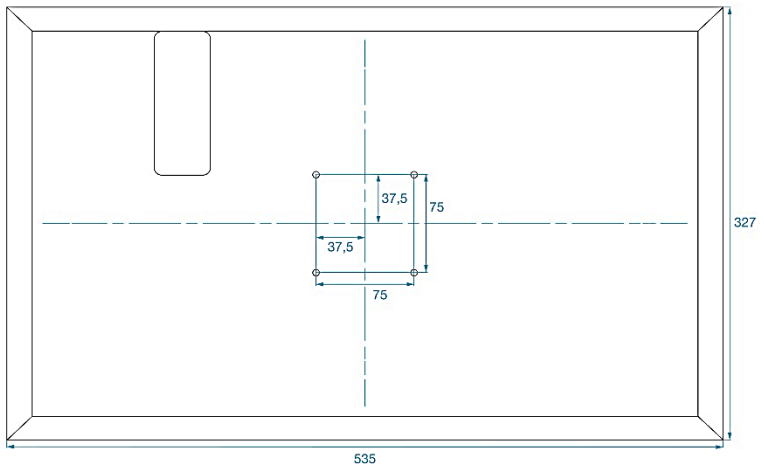
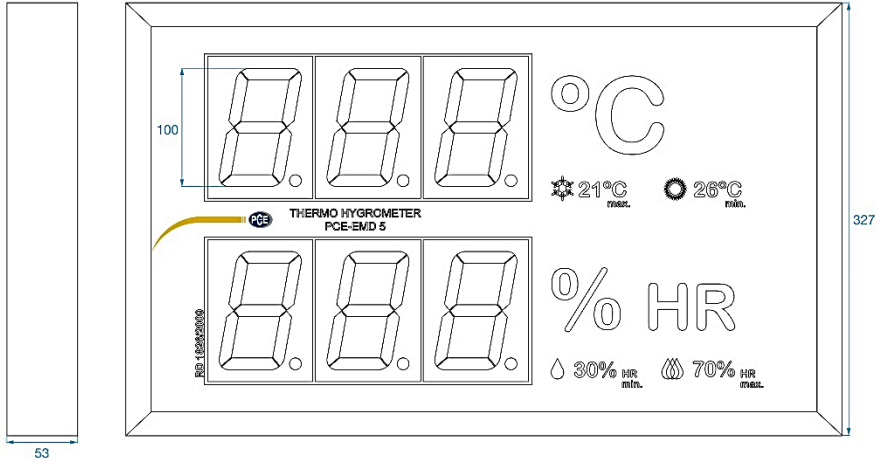
2 Specifications

Temperature PCE-EMD 5	
Measurement range	0 ... 50 °C
Resolution	0,1 °C
Accuracy	±0,5 °C
Temperature PCE-EMD 10	
Measurement range	32 ... 122 °F
Resolution	0,1 °F
Accuracy	±0,9 °F
Humidity	
Measurement range	0 ... 99.9 % RH
Resolution	0.1 % RH
Accuracy	±3 % RH
Further specifications	
Response time	<15 seconds
Number of usable sensors	4
Digit height	100 mm / 3.9"
Digit colour	white
Sensor supply voltage	12 and 24 V DC
Maximum sensor supply current	100 mA
Impedance current input	<200 Ω
Display housing material	Black lacquered aluminium housing
Display protection	Anti-reflective methacrylate
Sensor housing material	ABS
Display protection class	IP20
Sensor protection class	IP30
Power supply	110 ... 220 V AC 50 / 60 Hz
Maximum power consumption	18 W
Display mounting	flat on a surface via a monitor stand (75 x 75 mm / 2.95 x 2.95")
Sensor mounting	flat on a surface
Cable cross-section of terminal strip power supply	0.5 ... 2.5 mm ² (AWG 14) rigid cable 0.5 ... 1.5 mm ² (AWG 15) flexible cable
Cable cross-section of terminal strip sensor connection	0.14 ... 0.15 mm ² (AWG 18) rigid cable 0.15 ... 1 mm ² (AWG16) flexible cable
Terminal strip torque	1.2 Nm
Terminal strip screw length	<12 mm / 0.47"
Display dimensions	535 x 327 x 53 mm / 21.0 x 12.8 x 2.0"
Sensor dimensions	80 x 80 x 35 mm / 3.1 x 3.1 x 1.3"
Operating conditions	-10 ... 60 °C, 5 ... 95 % RH, non-condensing
Storage conditions	-20 ... 70 °C, 5 ... 95 % RH, non-condensing
Display weight	4579 g / 161.5 oz
Sensor weight	66 g / 2.3 oz

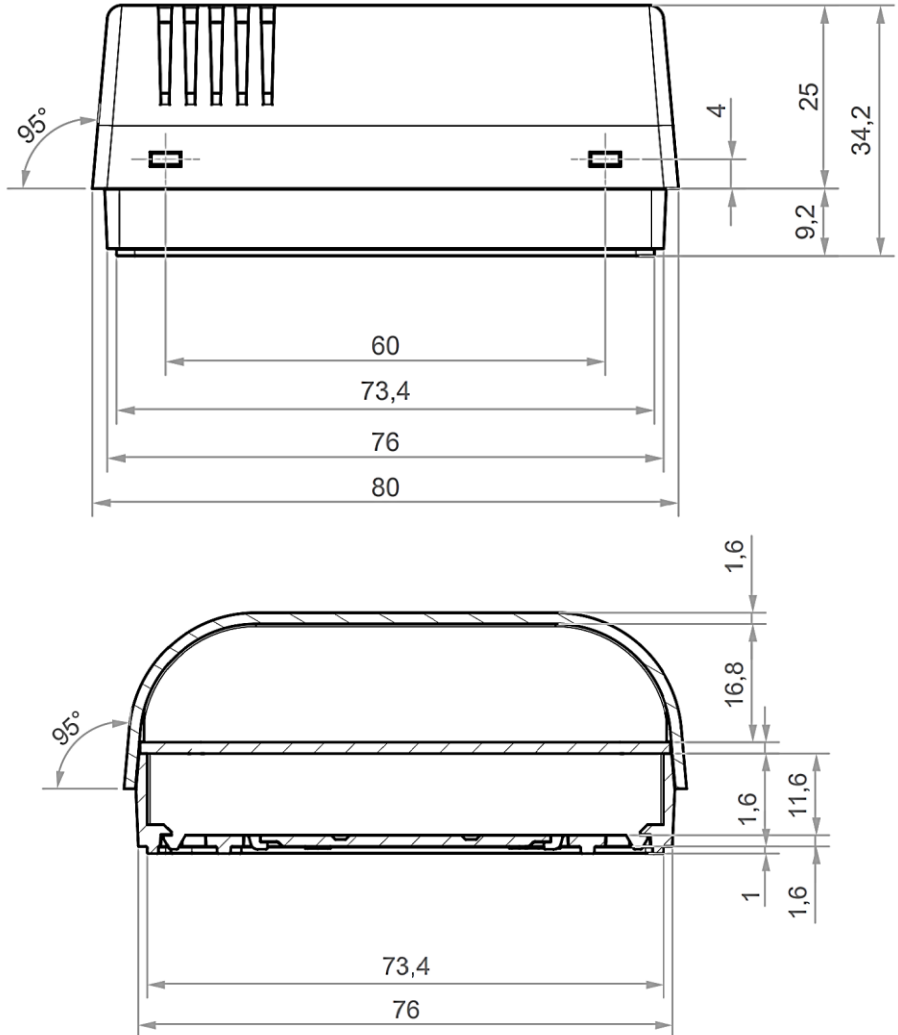
3 Delivery scope

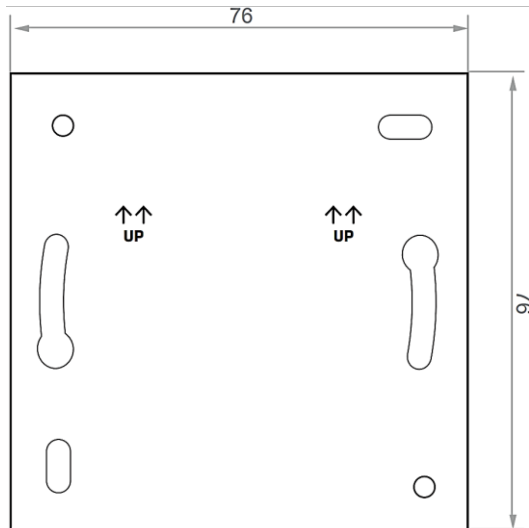
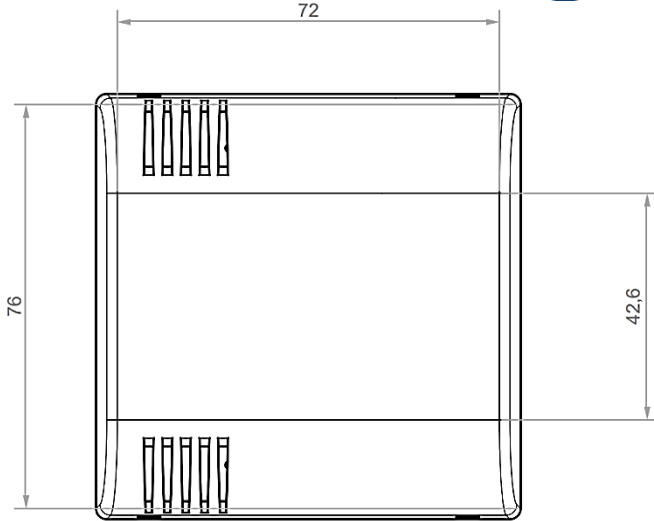
- 1 x large display PCE-EMD series (depending on model)
- 2 x brackets for wall mounting
- 1 x user manual

4 Display dimensions

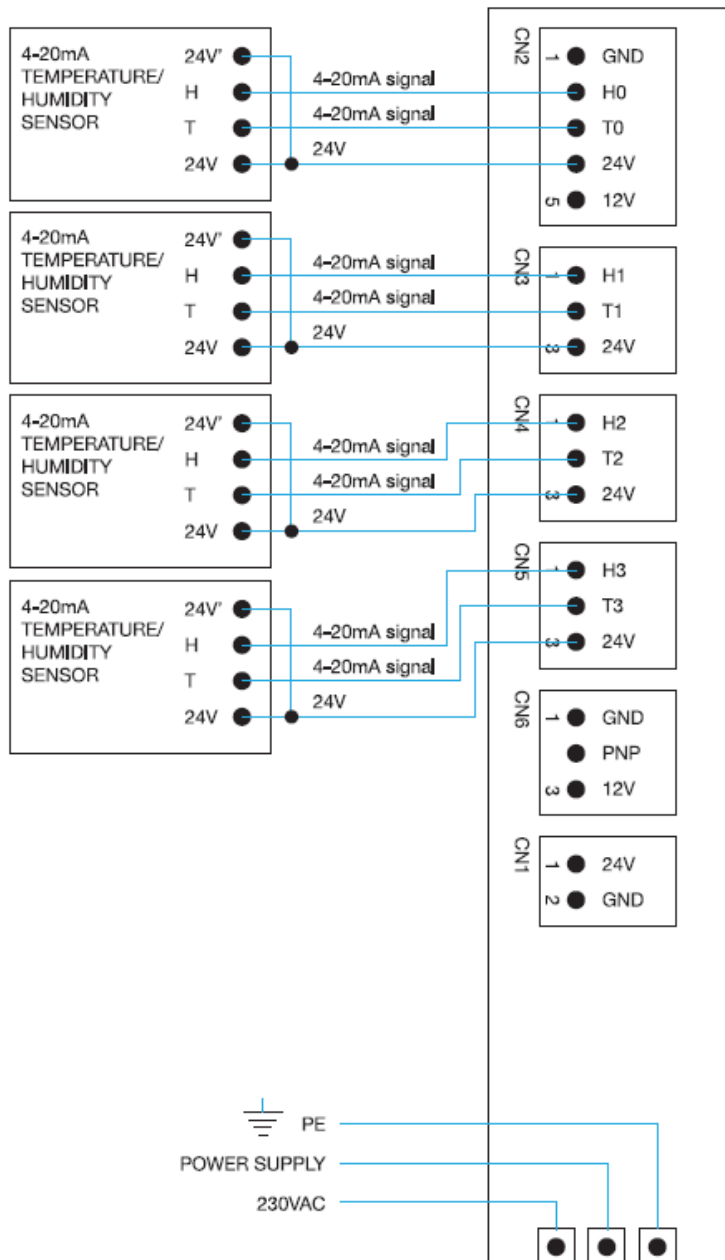


5 Sensor dimensions

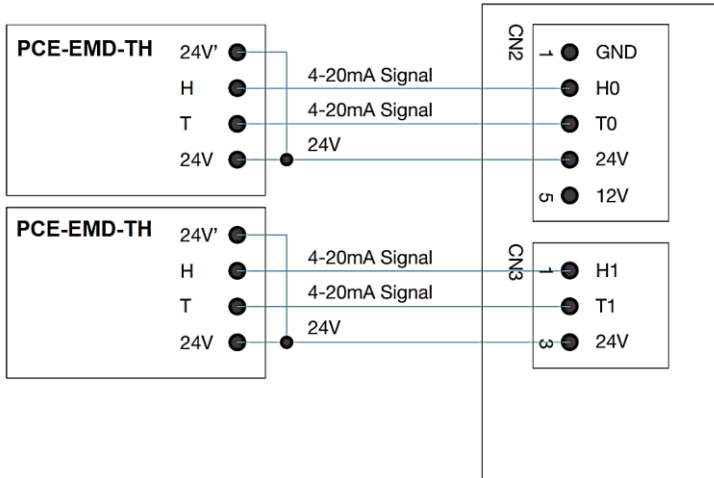




6 Wiring diagram for 4 ... 20 mA sensors on the display

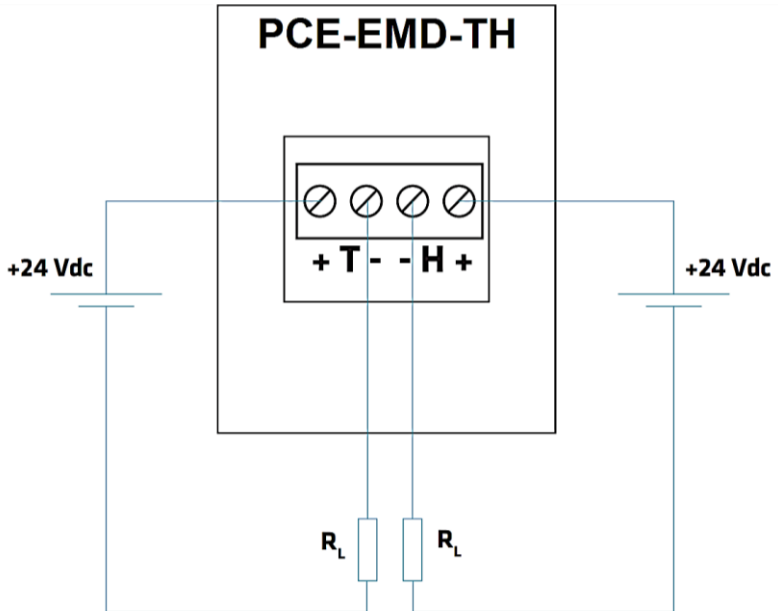


7 Sensor connection diagram to PCE-EMD series (display)

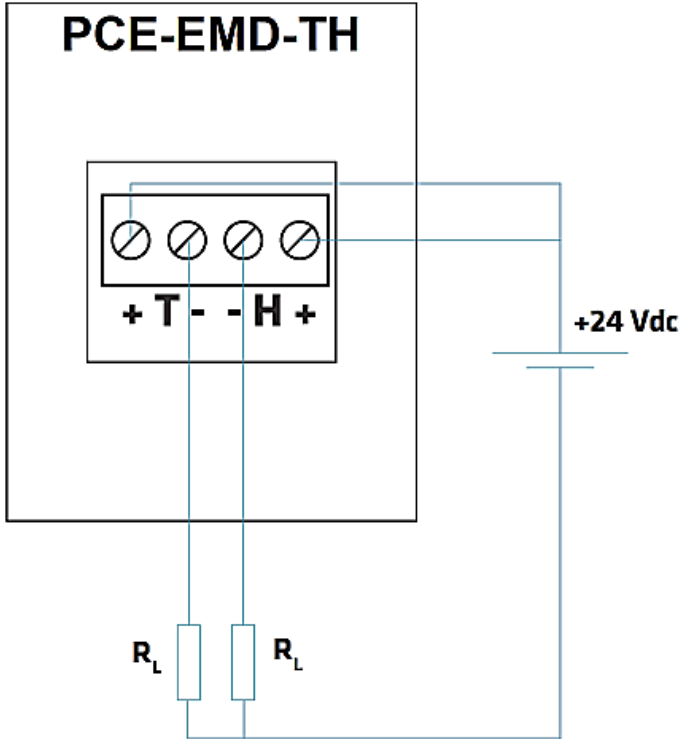


Designation	Meaning
24 V	Supply voltage 24 V
12 V	Supply voltage 12 V
Hx	Connection for humidity
Tx	Connection for temperature
GND	Dimensions

7.1 Wiring diagram sensor (insulated)



7.2 Wiring diagram sensor (standard)



7.3 Instructions

To use the display, between one and four sensors must be connected to it. As there are no keys on the display, no operation is required. The display works completely automatically.

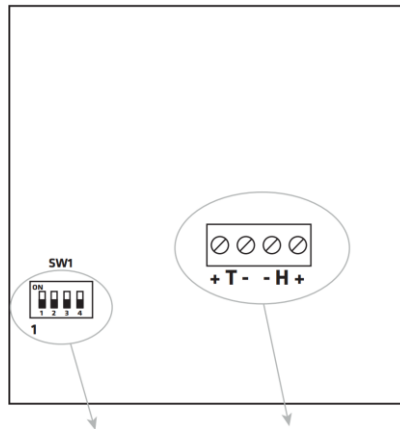
The display works as follows:

Number of sensors	Display
0	99.9 °C / °F and 99.9 % RH
1	Measured values
2 or more	Average of all sensors

8 Calibration

To perform a calibration, there is a row of switches on the inside of the sensor. These switches can be used to change the temperature signal. The measured value can be added and subtracted by turning these switches on and off. It is not recommended to change these switches as the sensor is already set appropriately at the factory.

Position 1	Position 2	Position 3	Position 4	Correction
-	-	-	-	0
On	-	-	-	0.2
-	On	-	-	0.4
On	On	-	-	0.6
-	-	On	-	0.8
On	-	On	-	1.0
-	On	On	-	1.2
On	On	On	-	1.4



Calibration switch Signal outputs

9 Contact

If you have any questions, suggestions or technical problems, please do not hesitate to contact us. You will find the relevant contact information at the end of this user manual.

10 Disposal

For the disposal of batteries in the EU, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose.

In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law.

For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations.

If you have any questions, please contact PCE Instruments.



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