sauermann®

CLASS 50 PORTABLES

CO 50, CT 50, HD 50, HM 50, LV 50, LX 50, MP 50, MP 51, MP 55, VT 50

Quick Start Guide

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CE UK CA

Quick Start Guide

Class 50 portables

These portable instruments are used to measure the following parameters: temperature, relative humidity, CO, pressure, air velocity and light.

1. Operating temperature, protection of the instruments and information about storage

Conditions of use (°C/%RH/m): from 0 to +50 °C. In non-condensing conditions. From 0 to 2000 m.
Protection: IP54
Storage temperature: HD 50, LX 50: from -20 to +70 °C. CT 50, CO 50, HM 50, LV 50, MP 50, MP 51, MP 55, VT 50: from -20 to +80 °C.

If the instrument is stored outside the operating temperature (for example in a van, a warehouse...), please wait for 10 minutes in its operating temperature before start using it.

1. Keys

🔄 **Select**   ⏻ **On/Off/Hold**
          HOLD

2. Take a measurement

⚠️ **VT 50:** before using the instrument with the hotwire probe, please lower the protection tube (1) of the sensing element.

⚠️ **VT 50:** always use the hotwire probe with the red point in front of flow.

Switch on the instrument by pressing briefly on **"On/Off/Hold"**.

The instrument displays its name then the measurement.

Sensing element (velocity)
Sensing element (temperature)
Airflow direction
Protection tube of the sensing element (1)
Redpoint: landmark
Bottom of the hotwire probe

CO 50: the instrument displays its name then a 5 second countdown. This count corresponds to the preheating time of the sensor. At the end of the countdown, the measured value of CO is displayed.

MP 50, MP 51: the instrument displays its name then an autozero is performed. At the end of the autozero, the measured value displays.

Press briefly on **"Select"** to switch measurement parameter display.

MP 50, MP 51, MP 55: press briefly and successively on **"Select"** to change the unit.
- Available units for MP 50: Pa, mmH_2O, inWg, daPa.
- Available units for MP 51: mmH_2O, kPa, in Wg, mbar, mmHg, daPa.
- Available units for MP 55: mbar, mmHg, hPa.

HM 50: press briefly on **"Select"** to select a type of material.
Press the spikes in the material to be measured.
When a measurement is over-range, above the maximum range, the value flashes.
Below the minimum range, the value is no more measurable and the device indicates "---", it means that for:
- Wood type 1: the measurement is < than 10%
- Wood type 2: the measurement is < than 9%
- Plaster, brick and concrete: the measurement is < than 0.1%

3. Carry out a manual autozero (MP 50, MP 51)

During measurement:

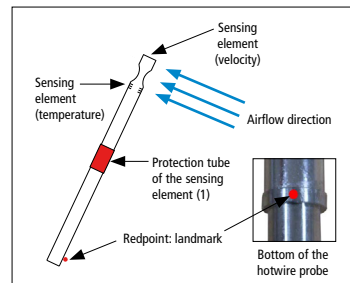Remove pressure tubes. Carry out a long press on **"Select"**.
The instrument makes an autozero then returns to the measurement display.

4. Hold the measurement

During measurement, press briefly on **"On/Off/Hold"** to hold measurement: "Hold" appears on the screen and measurements are fixed.

CO 50, HD 50, HM 50, LX 50, MP 55, VT 50: press briefly on **"Select"** to move from one parameter to the other.

Press again briefly on **"On/Off/Hold"** to exit the Hold function.

6. Change the unit

The instrument is on.

CO 50, CT 50, HD 50, LX 50:
Carry out a long press on **"Select"** to change the unit.
Press briefly on **"Select"** to select the required unit of measurement.
Carry out a long press on **"Select"** to confirm the unit and return to the normal measuring mode.

VT 50:
Change the air velocity unit:
Press briefly on **"Select"** up to display the air velocity.
Carry out a long press on **"Select"** to change the air velocity unit.
Press briefly on **"Select"** to select the required unit of measurement.
Carry out a long press on **"Select"** to confirm the unit and return to the normal measuring mode.

Change the temperature unit:
Press briefly on **"Select"** up to display the temperature.
Carry out a long press on **"Select"** to change the temperature unit.
Press briefly on **"Select"** to select the required unit of measurement.
Carry out a long press on **"Select"** to confirm the unit and return to the normal measuring mode.

7. Select the velocity type: contact or optical (CT 50)

The instrument is on.
Carry out a long press on **"Select"**: "Cont" or "Optic" flashes.
Press briefly on **"Select"** to select contact velocity ("Cont") or optical velocity ("Optic").
Carry out a long press on **"Select"** to confirm.

8. Perform a self-test (HM 50)

Turn the instrument on. Remove the cap and turn the cap.
Press **"Select"** to select the type of material to verify.
Press the 2 pins of the instrument into the contact plugs of the cap.
Read the value indicated by the instrument:

- If the indicated value matches with the given value in the table below, the instrument runs properly.
- If the indicated value does not match with the given value in the table below, clean the tips and carry out a new self-test. If the value is still wrong, change the pins. If it does not work, please contact the after sales service.

Contact plugs

Resistance	Material			
	Wood type 1	Wood type 2	Plaster	Brick and concrete
1 MΩ	30.8% ±1%	27.5% ±1%	4.6% ±1%	5.2% ±1%

Materials humidity

Wood		Plaster		Brick and concrete	
Moisture content	State of the wood	Moisture content	State of the plaster	Moisture content	State of the brick/concrete
< 15%	Dry	< 2%	Dry	< 2%	Dry
From 15 to 30%	Moist	From 2 to 4%	Moist	From 2 to 4%	Moist
> 30%	High moisture	> 4%	High moisture	> 4%	High moisture

9. Batteries replacement

The instrument is OFF.
Remove the front part at the back of the instrument.
Replace used batteries by new batteries AAA LR03 1.5 V.
Replace the front.

⚠️ To ensure safety, replace batteries with the same type.
Not doing so might lead to explosion. Dispose of used batteries according to instructions.

10. Auto shut-off

The instrument switches off if it is not used during 20 minutes.