Cooking Oil Tester
SISCO-OT-DT-70

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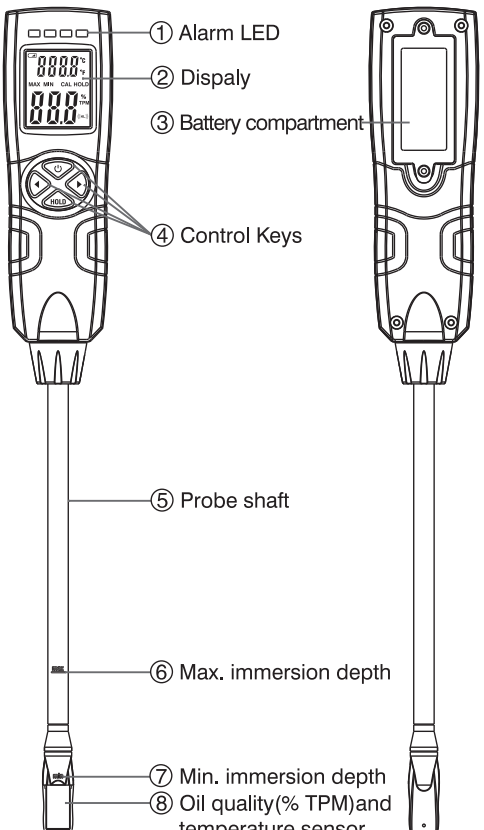
① Alarm LED
② Dispaly
③ Battery compartment
④ Control Keys
⑤ Probe shaft
⑥ Max. immersion depth
⑦ Min. immersion depth
⑧ Oil quality(% TPM)and
temperature sensor

1. Specifications

Function	Parameters
Measurement parameters	
Temperature:	30.0～200.0°C
TPM:	0.5～40%
Accuracy	
Temperature:	± 1.5°C
TPM :	± 3 %(30.0～190.0°C)
Resolutionr	
Temperature:	± 0.5°C
TPM:	± 0.1%
Power	
Battery:	2X AAA bettery
Battery usage under 20°C	
Lifetime:	The continuous use time is about 25 hours (corresponding to 500 measurements).
Temperature Sensor	PTC Sensor
TPM Sensor	Capacitive senso
Operating temperature	0～ 50°C
Storage temperature	-20～ 70°C
display	LCD, 2 line display
Weight	
Housing material	ABS
TPM response time	2<30s
IP Level	IP 65
Battery life under 20°C	The continuous use time is about 25 hours (corresponding to 500 measurements).

2. Measurements

• Oil Tester can achieve rapid continuous measurement, after the completion of a measurement without waiting for the next direct measurement can be carried out.

• What kind of oil / grease can this instrument apply to?

• In principle, all frying oils and lipids can be measured. Such as rapeseed oil, soybean oil, sesame oil, palm oil, olive oil and peanut oil and other vegetable oils. Animal fat can also be measured. Depending on the type of grease, the TPM value of the fresh oil will fluctuate between a few percent, and the maximum use time of the frying oil is different.

For example, fresh palm oil has a higher% TPM initial value than other oils, but its aging is much slower than other oils.

2.1. The effect of additives

• Oil Tester is designed for the measurement of pure oil / fat products. If additives are used, the results may be offset.

2.2. Contrast with laboratory methods

• Frying oil is a mixture of different polar substances. In the process of aging of frying oil,the number of high polarity ingredients will increase. Laboratory chromatography can distinguish between polar and non-polar materials, the content of the total component of the frying oil is defined as% TPM (total polar group Minute).

• The value of the% TPM measured may produce subtle changes by the column method due to the setting of the polar component and the non-polar component boundary.
Depending on the type of grease, the polarity of the polar and nonpolar components may also produce subtle changes
But the change in the column method is not recognized.

• On the other hand, Oil Tester can measure the entire polarity of the frying oil and thus get the actual polar component and the nonpolar component. Therefore, in some measurements,Oil Tester measured Values may be higher or lower than the results of the column method.
For example, coconut oil, Oil Tester on its measured TPM value higher than the column method, this oil is not suitable for deep frying, mainly suitable for a short panic frying pan.

2.3. measuring

- Free Fatty Acids (FFA)
  The Oil Tester measures the total amount of polar components in the frying oil Evaluate the deterioration of oil after deep frying. While free fatty acids are used to determine the degree of aging of the grease at room temperature after long-term storage, the indicators are not suitable for judging the fry of oil flesh.
  Oil Tester is not used to measure free fatty acids.
- Polymerized triglycerides (PTG)
  Polyglycerol is increasingly being used to assess the quality of frying oil. The measurement results of this method can be proportional to% TPM values in most cases.
  PTG ≈ % TPM/2

2.4. Start measuring

1. Press the Power button and release it. The instrument opens
2. The temperature bar shows Lo
3. TPM bar shows - - -
4. Press the HOLD button in the measurement mode to activate the HOLD mode
5. The temperature bar flashes "HI" to indicate that the measured temperature is above the range.
6. The temperature bar flashes "LO" to indicate that the measured temperature is below the range.
7. The TPM bar flashes "LO" to indicate that the substance under test is not oil.

2.5. Please follow the points below to get the most accurate results in the measurement:

- Turn off the induction frying pan during the measurement because the electromagnetic field will affect the measurement result.
- Remove the fried objects from the frying oil in the measurement and wait for 5 minutes.
- Clean the probe before each measurement or before the next continuous measurement.
- Try to avoid touching metal objects, such as frying baskets, pots, because these things can affect the measurement results, and the minimum distance from the metal should be at least 1cm per side.

- Uneven oil temperature in the frying oil may cause a measurement error. Please stir the instrument in the frying oil.
- If the measurement results are suspected to contain an error due to water inclusion: Please repeat the measurement after 5 minutes (do not fry during this period to keep the grease high). If the new reading goes low, measure it again after 5 minutes until the reading is stable.
- Please replace frying oil when 24% TPM is reached. Different countries have different limits. Be sure to replace frying oil before reaching limit.
- We recommend that you wear your hand strap while using this instrument to prevent the instrument from slipping.

3. Configuration mode

1. Turn on the instrument and press [Hold] and [<] at the same time at least 3 s while instrument is under test mode,
   - ^{0}C or ^{0}F show up in the display.
2. Use [<] or [>] to set the temperature unit (° C / ° F).
3. Press [Hold] to confirm the set temperature unit.
   - Display ALA and on or off.
4. Press [<] or [>] to turn on or off the buzzer alarm.
5. Press [Hold] to confirm.
   - OFF and on or off in the display.
6. Press [<] or [>] to turn Auto Off on or off.
7. Press [Hold] to confirm.
   - The LED is on and off in the display.
8. Press [<] or [>] to turn the LED on or off.
9. Press [Hold] to confirm.
   - CAL and on or off are on the display.
10. Press [<] or [>] to turn on or off to enter calibration mode.
11. Press [Hold] to confirm.
    - BL and on or off in the display.
12. Press [<] or [>] to turn the backlight on or off.
13. Press [Hold] to save and exit.

(Press the [Power] key in configuration mode to exit and save the configuration mode)

4. Configuration options

Configuration	configuration options
Set the temperature	in °C or °F
Setting (LED)	on: LED alarm is activate
	off: LED alarm is released
Set the sound ALA (Alarm)	on: sound alarm is activated
	off: The sound alarm is released
Perform calibration (CAL)	on: Perform calibration
	off: No calibration is performed
Execute Reset Reset (RST)	on: Resets to factory settings
	off: will not be reset
Set the automatic shutdown (OFF)	on: automatic shutdown is turned on
	off: automatic shutdown off
Set the backlight (BL)	on: backlight turned on
	off: backlight off

5. Set the high and low alarm

5.1. Set the TPM alarm cap

1. Turn on the instrument Press and hold [<] for at least 3 seconds in the test mode, the instrument enters the high alarm setting, and the LED turns red.
2. Then click or press [<], [>] to set the corresponding value
3. Click [Hold] to save and exit. Click [Power] to exit only and not save

5.2. Set the TPM alarm limit

1. Turn on the instrument Press and hold [>] in the test mode for at least 3 seconds to enter the instrument, Low alarm settings, then LED lights turn green
2. Then short click or long press [<], [>] to set the corresponding value
3. Click [Hold] to save and exit, click [Power] to exit only,do not save.

6. User calibration

1. Heat the calibration oil to about 50°C.
2. After entering the user calibration,put the instrument into the calibration oil, pay attention to the depth of invasion.
3. When the TPM value shown in the table is stable, short press [<] ([>]) to increase (decrease) the measured value by 0.5.
4. When the displayed TPM value matches the value of the calibration oil, short press [Hold] to save the user calibration value.

7. Restore factory settings

1. After entering the factory settings, the screen displays RST.
2. Press the [>] and [Hold] keys simultaneously to reset the user calibration data to the factory settings.

Warning

If the instrument is overheated, it may cause a risk of burns (probe and probe rod)!

- Do not touch the hot parts on the instrument.
- Allow the instrument to cool before cleaning.
- If you are burned, immediately rinse the wound with cold water, if necessary, to see the doctor Health.
- Use a clean cleaner, standard water or soapy water.
- Clean the probe gently with a soft paper towel or rinse it in water.
- Wipe dry the probe with a soft paper towel