USER MANUAL

310.09D   TEMPPOINTER 9 DEW
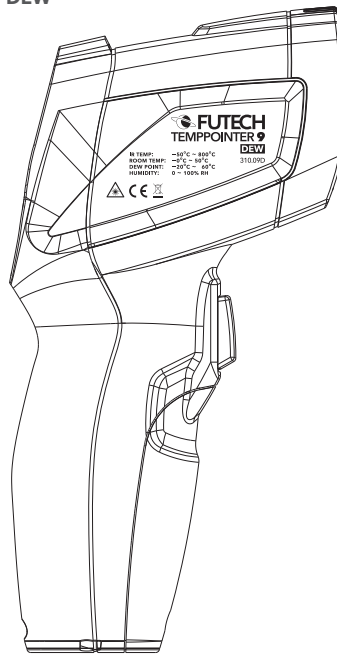
**Manual
in your language?**

Check the back cover

FUTECH
TEMPPOINTER **9**
DEW
310.09D

IR TEMP: −50°C ~ 800°C
ROOM TEMP: 0°C ~ 50°C
DEW POINT: −20°C ~ 60°C
HUMIDITY: 0 ~ 100% RH

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OVERVIEW
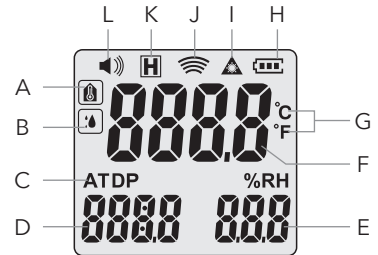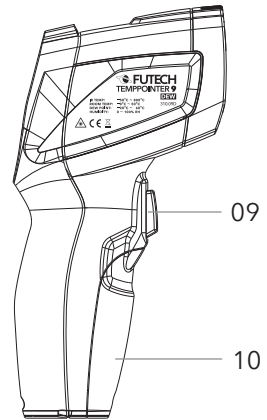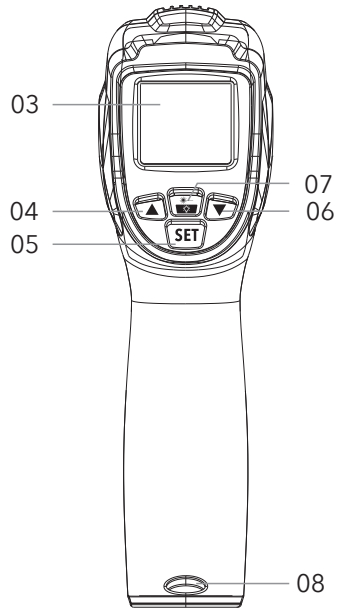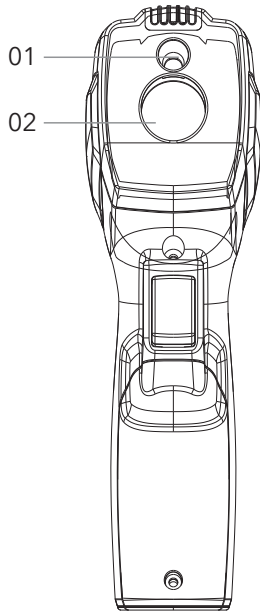
■ CASE

01 Laser light
02 Infrared sensor
03 LCD Display
04   Up button
05 Set button
06 Down button
07 Laser button / backlight button
08 Lanyard hole
09 Trigger
10 Battery cover

■ SCREEN

A   Air temperature (AT)
B   Dew Point (DP)
C   AT and DP characters
D   AT and DP value
E   Humidity or Emissivity value
F   Current temperature value
G   °C / °F symbol
H   Battery power symbol
I   Laser "ON" symbol
J   Measurement indiciator
K   Data hold
L   Buzzer symbol

SAFETY

Please read the complete safety instructions in the booklet delivered with this device.

While the product is in operation, be careful not to expose your eyes to the emitting laser beam.

Class 2 laser radiation, do not stare into the beam!

FIRST USE

· Remove all protective foils.

BATTERY

If battery symbol [H] is emty please replace your battery.

Carefully open the battery cover [10] and insert a new 9-Volt battery.

DISTANCE AND SPOT SIZE

As the distance (D) from the object increases, the spot size (S) of the area measured by the Temp-pointer becomes larger.

▪ FIELD OF VIEW

The device's field of view is 20:1 (Ex. If the thermometer is 20mm from the surface (spot), the diameter of the target must be greater than 1mm)

When accuracy is critical, make shure the target is at least twice as large as the spot size.

Distance:Spot=20:1
Laser · · · · · · · · IR
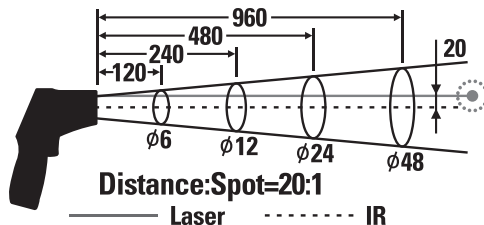
USE

· To activate the decive pull the trigger [09].

· The infrared thermometer will autmatically power off approximately 10 seconds after the trigger [09] is released.

MEASUREMENT OPERATION

■ REGULAR MEASUREMENT

This mode is used to measure the Air Temperature [A].

The AT [A] is set by default when you activate the device.

· Aim the infrared thermometer to the surface of the object.
· Pull the trigger [09] to continuously read the temperature measurements.
· Release the trigger [09] when the desired measurement is obtained
· The AT [A] will stay displayed on the LCD display [03].

■ DEW POINT MEASUREMENT

The dew point [B] is the temperature where water droplets start forming into mist, dew or water-droplets.

— SET DEW POINT

· Press the SET button [05] one time, the AT / DP characters [C] will start blinking.
· Press the up [04] / down button [06] to switch between AT [A] or DP [B].
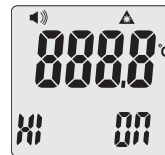
■ TEMPERATURE UNIT

This device can switch between °C and °F.

· Press the SET button [05] twice. The °C / °F symbol [G] will start blinking.
· Press the up [04] / down button [06] to switc

between °C / °F.

■ HIGH ALARM

· Press the set button [05] three times to set a high temperature alarm.
· Press the laser button / backlight button [07] to turn on / off the high alarm.
· To set the maximum temperature value use the up [04] / down button [06].

When the high alarm is reached during measurement the device will sound an alarm, "HI" and the buzzer symbol [L] will appear on the screen.

- · Press the set button [05] four times to set a low temperature alarm.
- · Press the laser button / backlight button [07] to turn on / off the low alarm.
- · To set the maximum temperature value use the up [04] / down button [06].
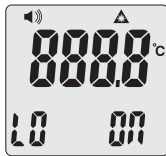
When the low alarm is reached during measurement the device will sound an alarm, "LO" and the buzzer symbol [L] will appear on the screen.

■ **EMISSIVITY SETTINGS**

Emissivity is a measure of the material's ability to radiate heat.

The majority of organic materials and painted or oxidized surfaces have an emissivity between 0.85 and 0.98.

While measuring, set the emissivity on the infrared thermometer to match the object being measured.

- · Press the set button [05] five times to set the emissivity.
- · Press the up [04] / down button [06] to set the emissivity value.
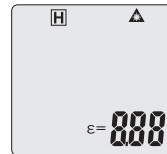
EMISSIVITY TABLE

ADHESIVE TAPE	0.96
ALUMINIUM PLATE	0.09
ALUMINUM, A3003 ALLOY (OXIDIZED)	0.3
ALUMINUM, A3003 ALLOY (ROUGHENED)	0.1 - 0.3
ALUMINUM, BLACK	0.95
ALUMINUM, OXIDIZED	0.2 - 0.4
ASBESTOS	0.95
ASPHALT	0.90 - 0.98
ASPHALT, PAVEMENT	0.93
ASPHALT, TAR PAPER	0.93
BASALT	0.7
BRASS, OXIDIZED	0.5
BRASS, POLISHED	0.3
BRICK	0.93 - 0.96
BRICK	0.75
CARAMICS	0.95
CARBON	0.8 - 0.9
CAST IRON	0.81
CEMENT	0.96
CERAMIC	0.90 - 0.94
CHARCOAL (POWDER)	0.96
CHROMIUM OXIDES	0.81
CLAY	0.95
CLOTH	0.95
CLOTH (BLACK)	0.98
CONCRETE	0.94 - 0.97
COPPER OXIDES	0.78

COPPER PLATE	0.06
COPPER, ELECTRICAL TERMINAL BLOCKS	0.6
COPPER, OXIDIZED	0.4 - 0.8
FERRO-NICKEL, ABRASIVE BLASTING	0.3 - 0.6
FERRO-NICKEL, ELECTRO POLISHING	0.15
FERRO-NICKEL, OXIDIZED	0.7 - 0.95
GLASS	0.85 - 0.95
GLASS, FIBER GLASS	0.75
GRAPHITE, UNOXIDIZED	0.7 - 0.8
GRAVEL	0.95
GYPSUM	0.75
HASTELLOY	0.3 - 0.8
SKIN, HUMAN	0.98
ICE	0.95 - 0.99
IRON OXIDES	0.78 - 0.82
IRON, CAST MOLTEN	0.2 - 0.3
IRON, CAST OXIDIZED	0.6 - 0.95
IRON, CAST PASSIVATED	0.9
IRON, CAST UNOXIDIZED	0.2
IRON, OXIDIZED	0.5 - 0.9
IRON, RUST	0.5 - 0.7
LACQUER	0.80 - 0.95
LACQUER (MATT)	0.97
LEAD, OXIDIZED	0.2 - 0.6
LEAD, ROUGHENED	0.4
LEATHER	0.75 - 0.80
LIMESTONE	0.98
MARBLE	0.94

MOLYBDENUM, OXIDIZED	0.2 - 0.6
MORTAR	0.89 - 0.91
NICKEL, OXIDIZED	0.2 - 0.5
PAINT	0.9
PAPER	0.70 - 0.99
PAPER, WHITE	0.68
PAPER, BLACK	0.90
PLASTER	0.8 - 0.95
PLASTICS	0.85 - 0.95
PLATINUM, BLACK	0.9
POLYCARBONATE	0.8
PVC PLASTIC	0.93
RUBBER	0.85 - 0.97
RUST	0.8
SAND	0.9
SILICON CARBIDE	0.9
SNOW	0.83
SOIL/EARTH	0.90 - 0.98
STAINLESS STEEL	0.14
STEEL, COLD-ROLLED	0.7 - 0.9
STEEL, GROUND SHEET	0.4 - 0.6
STEEL, POLISHED SHEET	0.1
TEXTILES	0.70 - 0.95
TIMBER	0.9 - 0.95
WATER, SEAWATER	0.90 - 0.98
WATER	0.67
WOOD	0.85
ZINC, OXIDIZED	0.1
ZINC, GALVANIZED	0.2 - 0.3

TECHNICAL SPECIFICATIONS

MODEL	310.09D TEMPPOINTER 9 DEW
LCD screen	Color LCD dispay
D:S	20:1
Emissivity	0.10 ~1.00
Response spectrum	8 -14 µm
Laser type	Class 2 / <1mW 630 - 670 nm
Response time	<0,1 seconds
Automatic power Off	10 seconds
Temparture range	-50° ~ 800°C (-58°F ~ 1472°F)
Display resolution	0.1°C < 1000; 1°C > 1000
Accuracy	-50°C ~20°C (-58°F ~68°F): ± 3°C 20°C ~450°C (68°F ~842°F): ± 1°C 2% of reading 450°C ~ 800°C (842°F ~1472°F)
Operation temperature	0 ~50°C (32 ~122°F)
Humidity	0 ~100% RH
Humidity accuracy	±2,5% RH
Air temperature	-30°C ~100°C (-22°F ~212°F)
Dew point temperature	-20°C ~ 60°C (-4°F ~140°F)
Power supply	9V battery

$C\,E$

DECLARATION OF CONFORMITY

Futech (Belgium) declares under its own responsibility that this device:

- 310.09D Temppointer 9 DEW

is in conformity with the standards

- EN 61326-1:2013
- EN 61326-2:2013

Under Electromagnetic Compatibility (EMC) Directive 2014/30/EU

Lier, Belgium,
December 18, 2023
Patrick Waûters

NOTES

NOTES

USER MANUAL

other languages:

DA DANSK	**IT** ITALIANO
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