



INDUSTRIAL  
ENGINEERING

# EAGLEYE DEW<sup>®</sup> DEW POINT ANALYZER MANUAL OF USE / V 0.1



*Don't worry about it !*

# EAGLEYE DEW

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# SAFETY

Be sure to read the instructions before operating the device. The device complies with accepted industrial safety standards.

Never operate the device with the user panel (inner top cover) removed.





# EQUIPMENT EVALUATIONS

Operating Voltage	220 Vac
Charge Frequency	50/60 Hz
Power Consumption	12 W
Sensor Range	-30 ... + 30 °C (-22 ... + 86 °F)

Operation Temperature	10-45°C (50-113°F) Muhafazanın yeterli havalandırmaya sahip olduğundan emin olun.
Relative Humidity	%5 ila %90, yoğuşmasız.
Accuracy	±1°C (±1.8°F)
Atmosphere	Cihazı, patlayıcı veya aşındırıcı ortamlardan uzak tutun. Amonyak teması kesinlikle yapılamaz. Asidik ortamlardan kaçının, yüksek asidik süreçlere maruz bırakmak sensöre zarar verebilir.



# OPERATION

Connect one end of the sample tube to the inlet and connect the oven sample port to the other end. The part where the connection will be made is shown below.



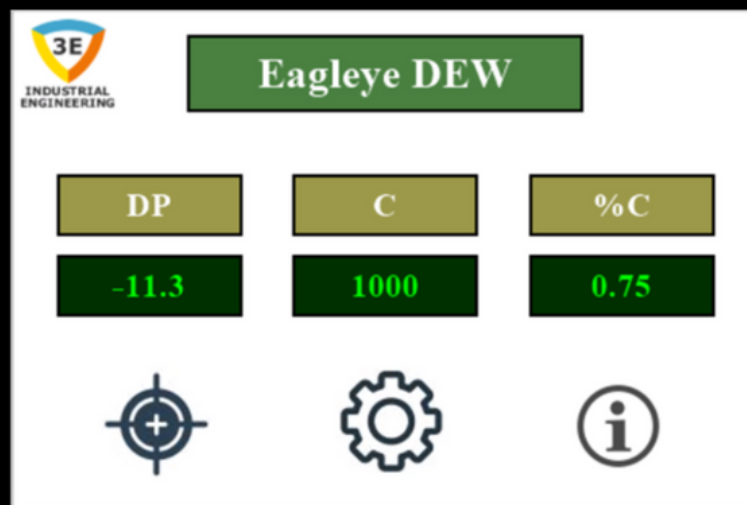
Any color change that occurs in the filter requires that the filter be replaced. The filter picture is shown below. The filter which is 5 microns should be replaced annually.



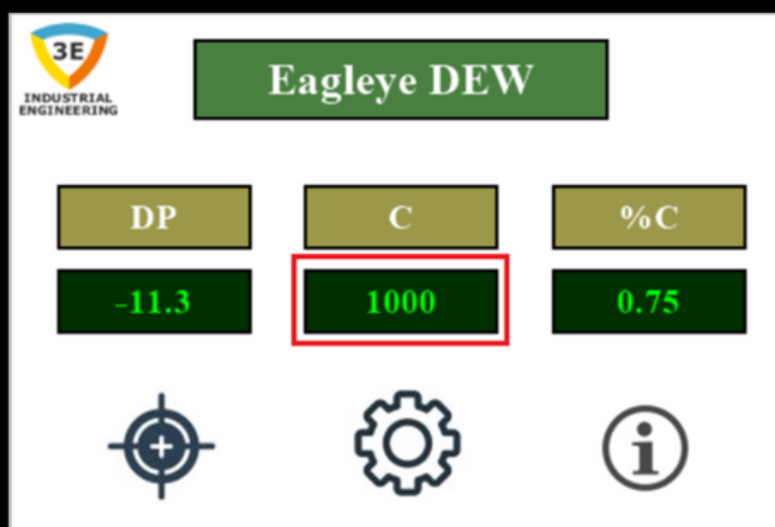
Turn on the unit by pressing the power switch. You must press the Pump button to start it. When you press the pump button, the warning light will be lit. Do not operate the pump when measuring pressurized lines, such as an endogas generator.

# HOME SCREEN

If you energize the device, the touch screen will be turned on. When the touch screen is first turned on, the main screen window will appear as follows.

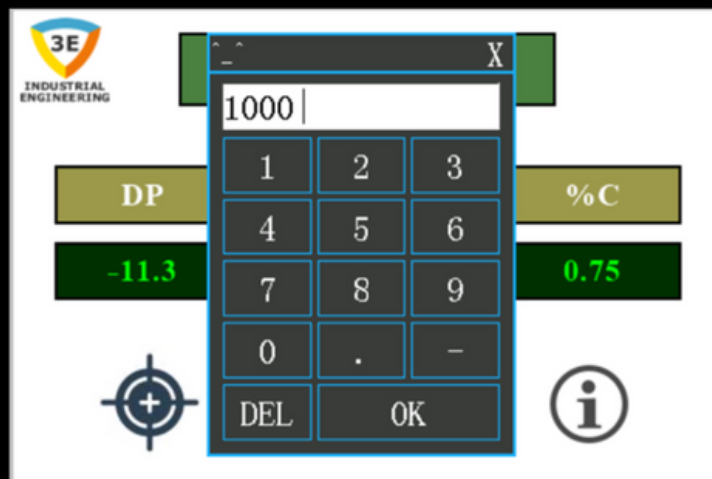


In the main screen window that opens, 'DP' stands for the dewpoint value, '°C' or '°F' represents the celcius or fahrenheit temperature value, and '%C' represents the calculated carbon value. In the main screen window, the temperature value will be entered by tapping the block of numbers below '°C' or '°F' as shown by the picture check box below.

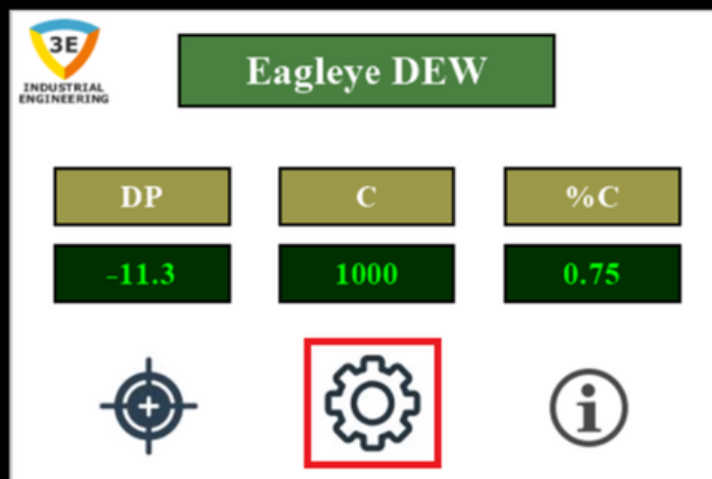


# HOME SCREEN

When the marked number block is touched, the keyboard window seen in the picture below will open and the user will have entered the value he wants to calculate into the temperature block after pressing the temperature value in the opened keyboard window and confirming it with the 'OK' key.

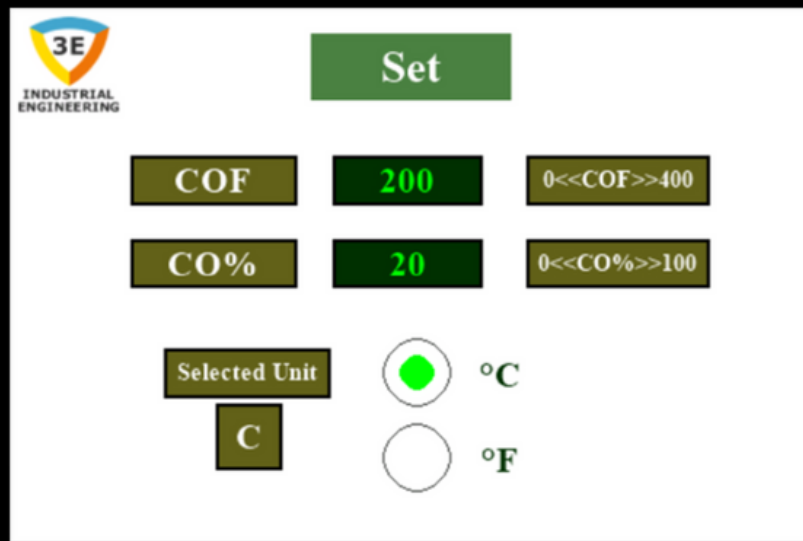


The necessary adjustments for the incoming 'DP' value can be made from the Adjustment and Calibration screens. To go to the setting screen, simply tap the part marked in the image below in the main screen window.





# SETTING SCREEN



**Set**

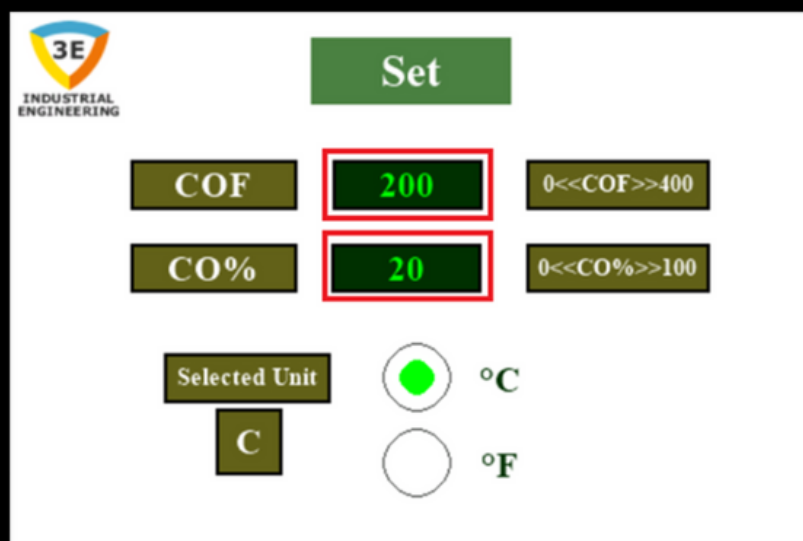
COF 200 0<<COF>>400

CO% 20 0<<CO%>>100

Selected Unit

C ☒ °C ☐ °F

After tapping on the marked part shown on the home screen, the window that will appear will be as shown above. On the screen that opensThe part where you can enter COF and CO% values is shown below.



**Set**

COF 200 0<<COF>>400

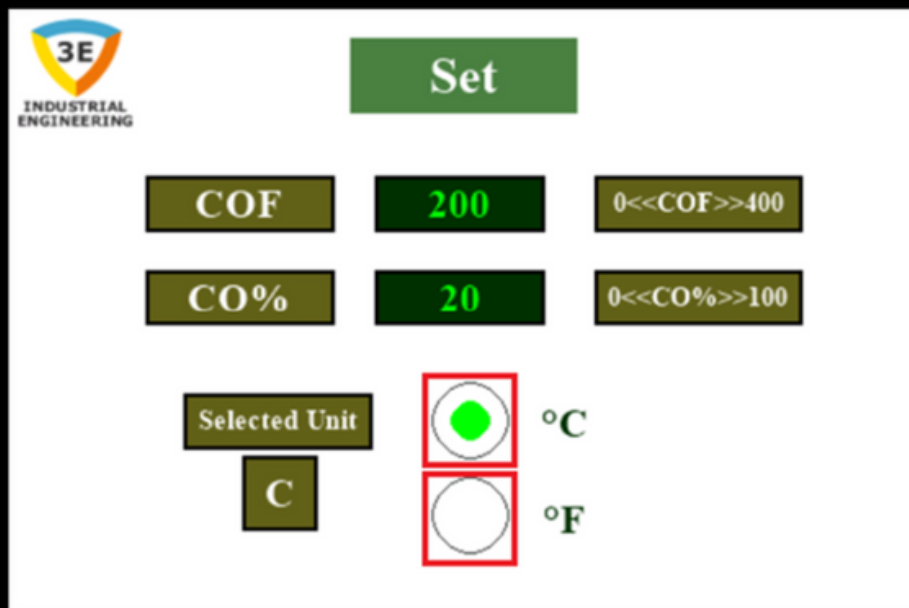
CO% 20 0<<CO%>>100

Selected Unit

C ☒ °C ☐ °F

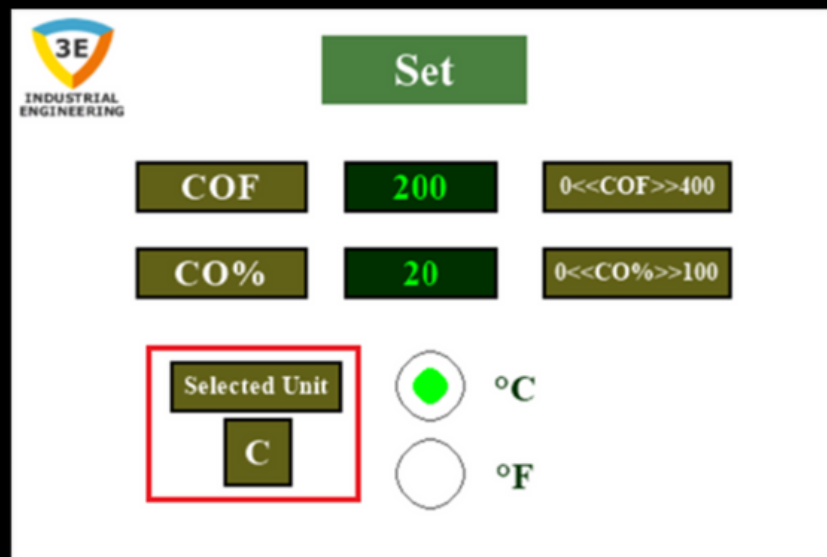
# SETTING SCREEN

When entering the COF value, you must enter between 0 and 400, and the CO% value between 0 and 100, as shown on the setting screen. Otherwise, you will have entered the defined large and small values. On the upper page, it will be enough to enter the desired new value from the keyboard window that opens by tapping the part marked in the 2nd picture. On the setting screen there are radio buttons shown in the image below where you can select celcius and fahrenheit. It is also possible to select the temperature unit from this screen.

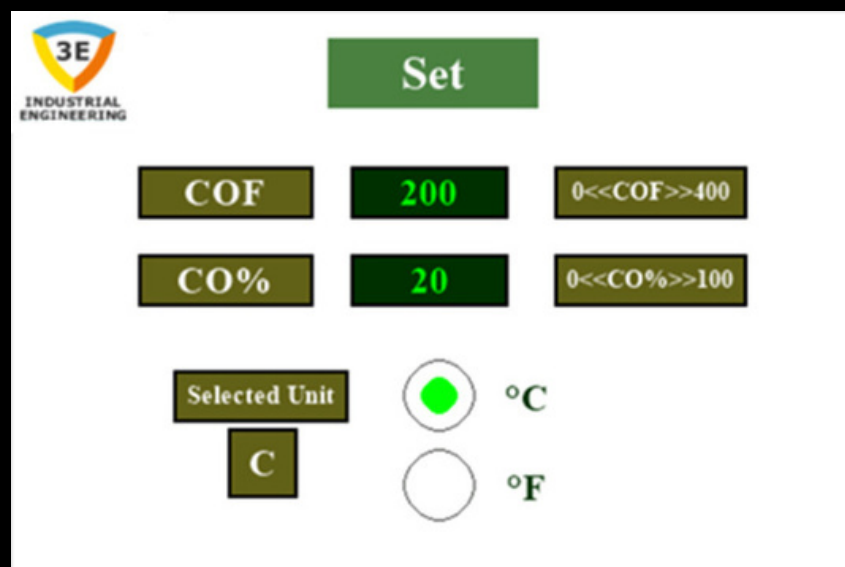


When you enter the required parameters on the setting screen, the unit indicating that the selected temperature selections are active on the main screen is shown on the next page with the box marked in the 1st picture. The temperature unit you have selected is in the box under the name of 'Selected Unit'; It is shown as 'C' if Celcius is selected and 'F' if fahrenheit is selected. You may need to press several times due to the length of the procedure.

# SETTING SCREEN



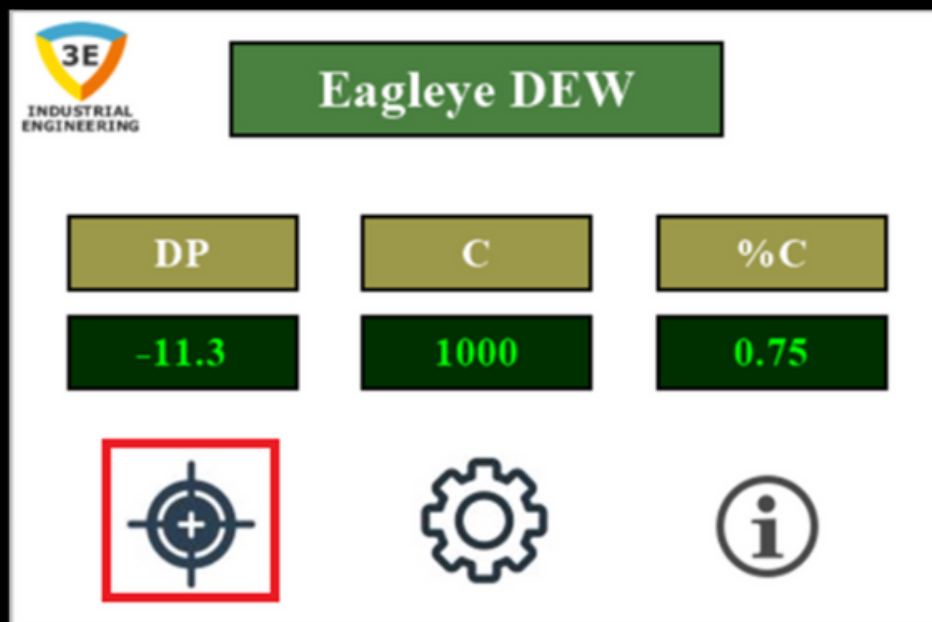
To go back, you can toggle the picture by tapping the part marked in the image below. It will be enough to tap the marked part below to return to the home screen again from other screens except the main screen.





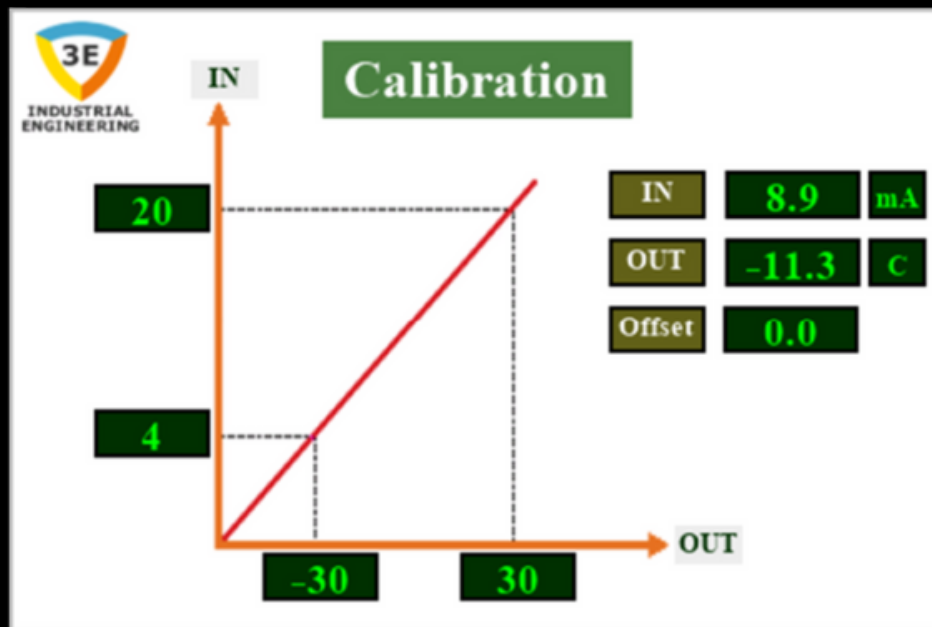
# SETTING SCREEN

Simply tap the section marked below to go to the calibration screen from the main screen.



# CALIBRATION SCREEN

When the calibration screen is opened, the screen that will appear will be the screen shown below.



To explain the three parameters seen on the calibration screen;

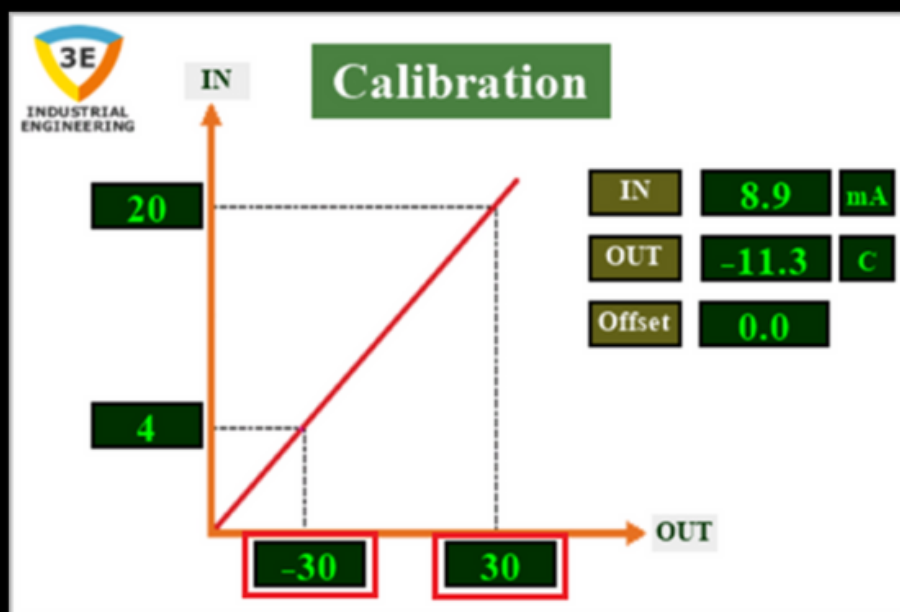
IN : Analog value read from sensor,

OUT : Calculated dewpoint value,

Offset : The balance to be applied in the calibration setting to be made.

# CALIBRATION SCREEN

Our sensor can measure between  $-30^{\circ}\text{C}$  and  $+30^{\circ}\text{C}$ .

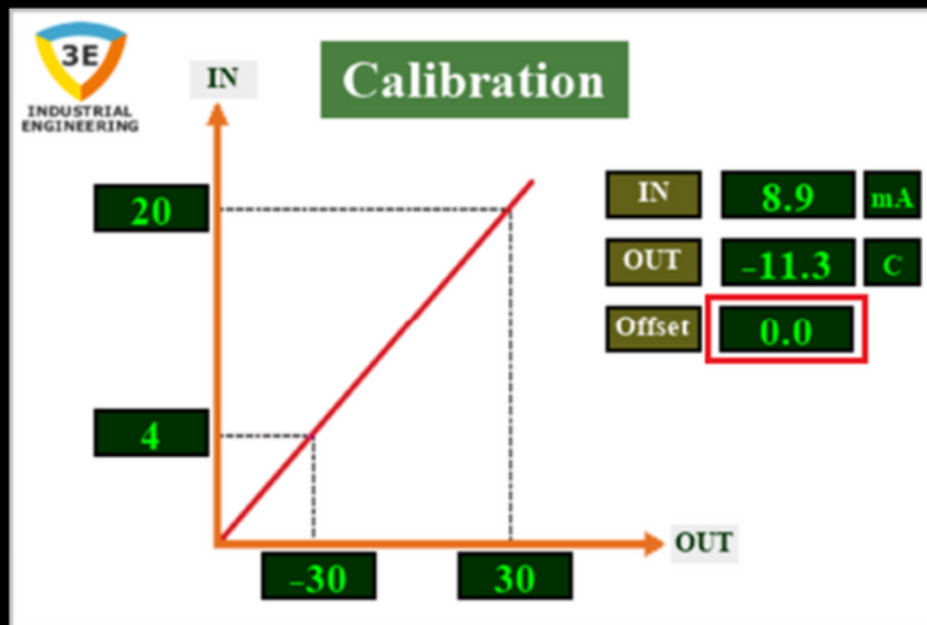


The measurement range of the sensor can be changed from the marked areas shown above. When you tap on the marked block, you can enter the desired new temperature range values from the keyboard window that opens.



# CALIBRATION SCREEN

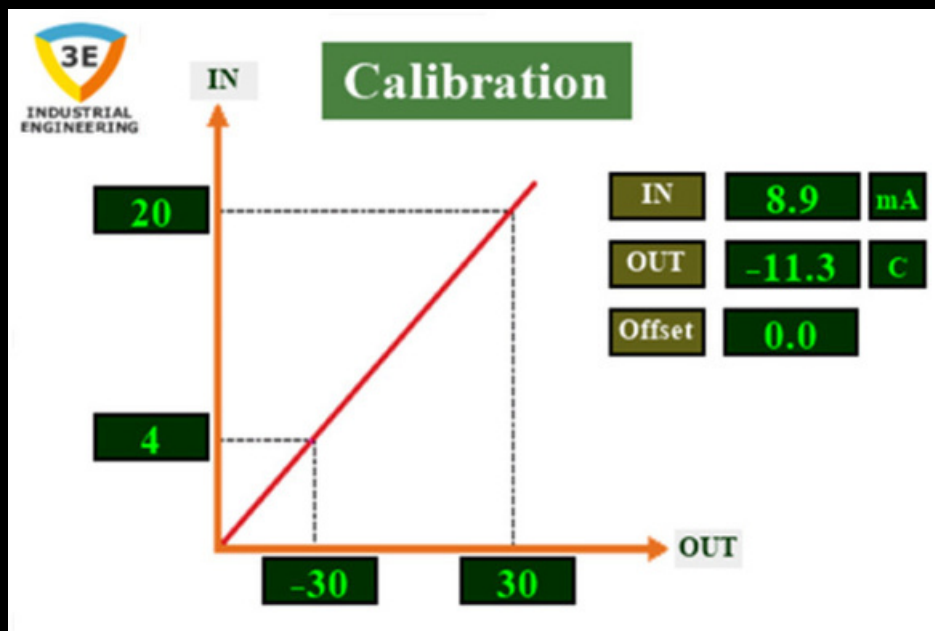
The measurement range of the sensor can be changed from the marked areas shown above. When you tap on the marked block, you can enter the desired new temperature range values from the keyboard window that opens.



When you de-energize the device and the analog sensor value read on the calibration screen, you will see the values you entered and the analog sensor value read before disenergizing the calibration screen and the same on the screen when you energize it. Thus, the user will not always have to enter values on the calibration screen.

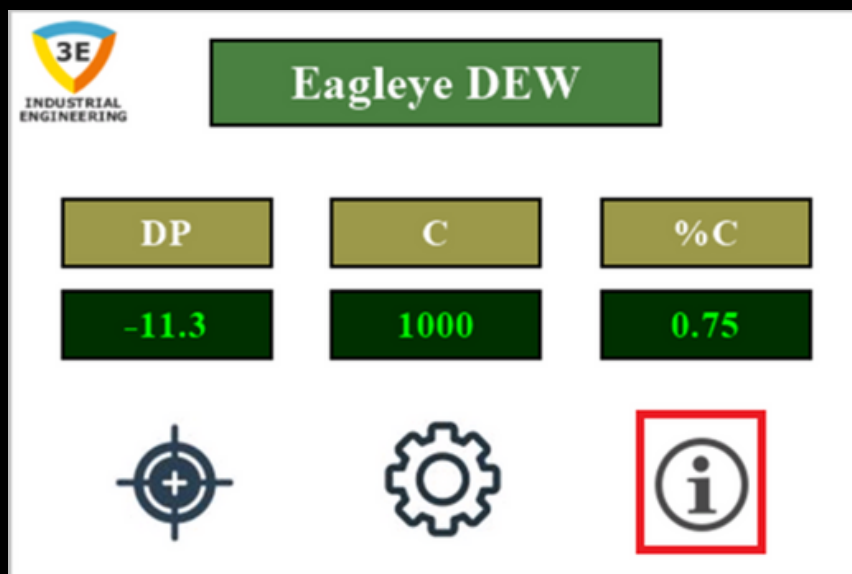
# CALIBRATION SCREEN

You can perform the rotation by tapping the part marked in the image below to return to the Home screen.

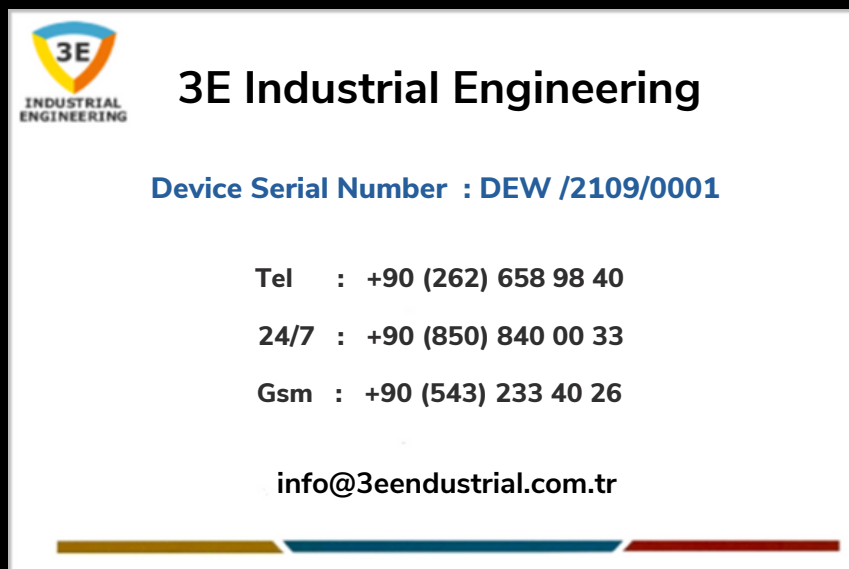


# ABOUT US SCREEN

To see information about our company and the serial number of the device, you should tap on the section marked below on the main screen.



When the About Us screen opens, the screen that will come up will be the screen shown below.





# ABOUT US SCREEN

On the About Us screen, you will be able to see information such as company title, telephone, GSM, fax and e-mail. In addition, the serial number of the device is also displayed on the about us screen. You can perform it by tapping on the section marked below as on other screens to return to the home screen from the About Us screen.



## 3E Industrial Engineering

**Device Serial Number : DEW /2109/0001**

**Tel : +90 (262) 658 98 40**

**24/7 : +90 (850) 840 00 33**

**Gsm : +90 (543) 233 40 26**

**[info@3eendustrial.com.tr](mailto:info@3eendustrial.com.tr)**

# CHARGER

Your Eagleye DEW includes a built-in battery charger.

The charging time required for full filling is 8 hours.

- No external feeding is required during the use of the device.
- Eagleye DEW power switch off to charge the unit position.
- If the use is completed, you can feed with the adapter from the power supply input.
- Use a properly grounded extension cable to connect the charger to 220 Vac.

# HOW TO CHARGE

The unit must be switched off for charging. The battery can provide hours of service before it is recharged. Please connect the charger when it is off and only charge if the battery is low. The power supply input of the device is shown below.



- Red Status Indicator Light – the battery is charging.
- Green Status Indicator Light – battery charged.



# CALIBRATION AND ANALYZER FAQ

## **Calibration:**

Eagleeye DEW needs to be sent to 3E Industrial for factory calibration

## **Analyser FAQ :**

Can I check the calibration of the analyzer?

The best way to verify the operation of the analyzer device is to operate the analyzer in an external environment where the moisture value is known.

After 15 minutes of idle running, compare the measured with the specified dew point. If the analyzer's reading is  $\pm 5^\circ$  of the reported dew point, then the analyzer is probably working.

Special equipment is required to perform a complete calibration, so the analyzer must be sent to 3E Industrial for operation. The recommended factory calibration is once a year.

What is the temperature value for?

The temperature value entered by the operator is used to calculate the % C value. The dew point cell has its own internal temperature sensor, which is used to calculate the dew point.

# ANALYZER FAQ

- How long does it take to charge the battery?

A fully charged battery can run continuously for about 3 hours while the pump is running for the entire time. The analyzer can work more than 6 hours without running the pump. You should always fully charge the analyzer before using it, because it may seem as if it is working when the output voltage is actually too low to support the dew point cell circuitry, but it will continue to supply power to the display and processor unit. The result will be irregular dew point readings when the battery voltage under load drops below 10V.

- What is the analyzer warranty period?

A new product has a warranty of 12 months from the moment it is shipped.

- Are there spare parts inside the analyzer case?

No, opening the lid and/or replacing any component or pipe, or modifying the analyzer configuration in any way, will void the warranty of the device.

# ANALYZER FAQ

- Will the Dewpoint sensor be fine if it gets wet?

It is desirable to sample non-condensing gases so that liquid water does not form in the filters and cell of the analyzer. A filter is installed in the gas flow to try to protect the cell. But this situation occurs from time to time. The best thing to do is to remove the filter elements and connect a pure dry gas such as nitrogen to the analyzer. To ensure a flow that does not load the sample pump, you must operate the pump and balance the pressure on the nitrogen regulator. Pass this gas through the analyzer until no trace of moisture is found at the entrance or exit of the analyzer. Replace the filter elements with a new one before putting the analyzer back into service. Sensors exposed to high dew point or liquid water for a long time have a tendency to drift (slip). If you have any questions about stability, you should send the sensor to 3E Industrial for evaluation after exposure to water.



# EAGLE EYE DEW

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+90 262 658 98 40

+90 850 840 00 33



+90 543 233 40 26



info@3eendustriyel.com.tr



www.3eendustriyel.com.tr





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