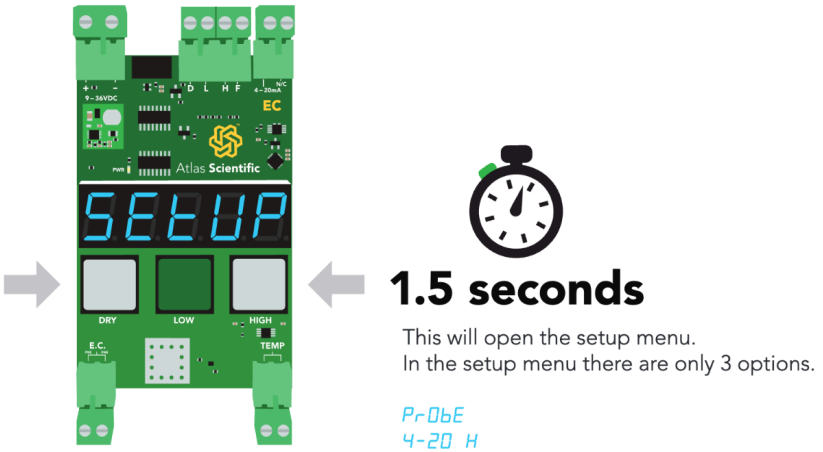
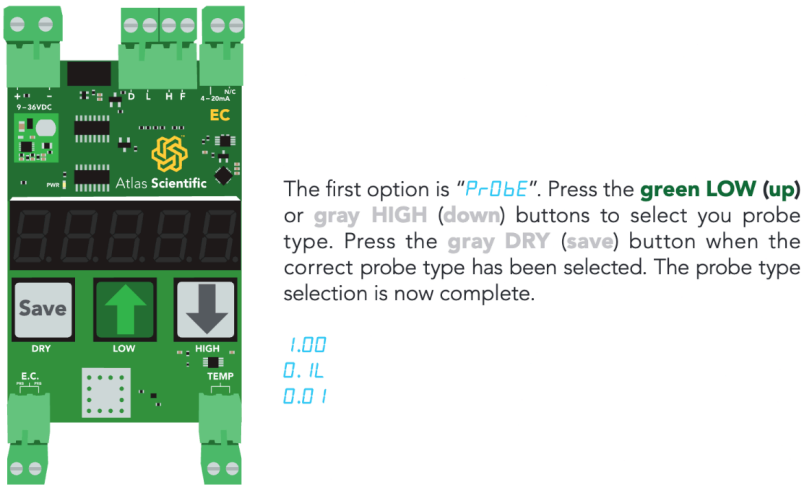
Sensor Calibration

Conductivity Transmitter Sensor Calibration

1. **Selecting a probe type:** The provided probe is a K 0.1 so we need to select the option “0.1” in the Transmitter. *Attention: in the image below you see 0.1L or 0.01 options, but in the display you see “0.1L” or “0.1”, pick “0.1”.*

   To change the probe type, press and hold the two gray buttons marked as HIGH and DRY simultaneously for 1.5 seconds





2. **Calibration:** The Industrial Conductivity Transmitter uses 3-point calibration: “dry”, “low”,and “high”. The first calibration point is “dry”.

   The dry calibration only needs to be done when a new probe is connected for the first time to the transmitter.

   The other two calibration points have been preset to specific industry standard calibration values. The calibration values are dependent on what probe type the

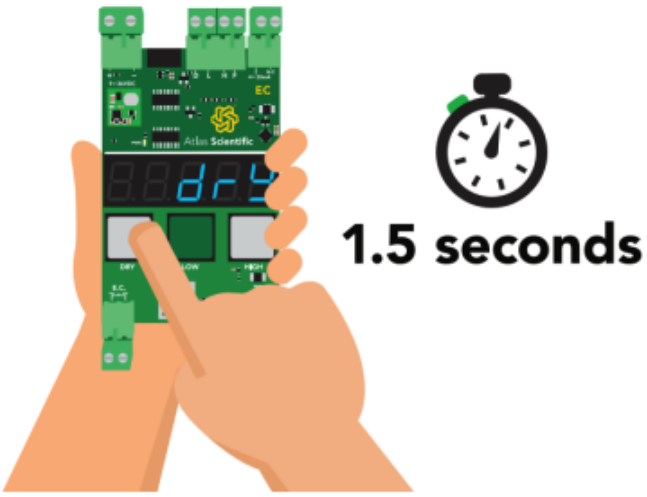
transmitter is connected to. The calibration data is stored in the EEPROM and will be retained even if the Transmitter is powered off.

Probe type	Low point calibration	High point calibration
K 0.1L	84µs	1,413µs
K 0.1	1,413µs	12,880µs
K 1.0	12,880µs	80,000µs

3. **Dry calibration:** *This step is only done when a new probe is first connected to the device.*

Dry probe calibration is similar to the tare function on a scale. After dry calibration the displayed conductivity should be 0.

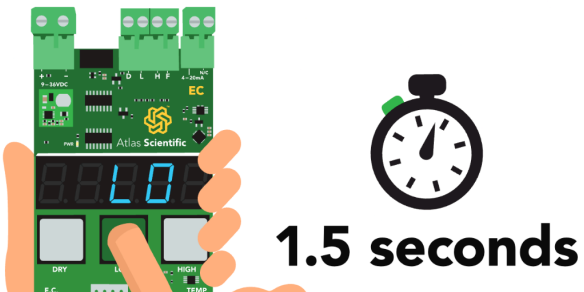
If the probe is not dry, dry it off. Press and hold the DRY calibration button for 1.5 seconds. The screen will display “dry” then “dONE”. Dry probe calibration has been completed.



4. **Low point calibration:** The probe should be put in the correct low point calibration solution.

Wait until the conductivity readings stabilize. Press and hold the LOW calibration button for 1.5 seconds. The screen will display “Lo” then “dONE”. The low point calibration has been completed.

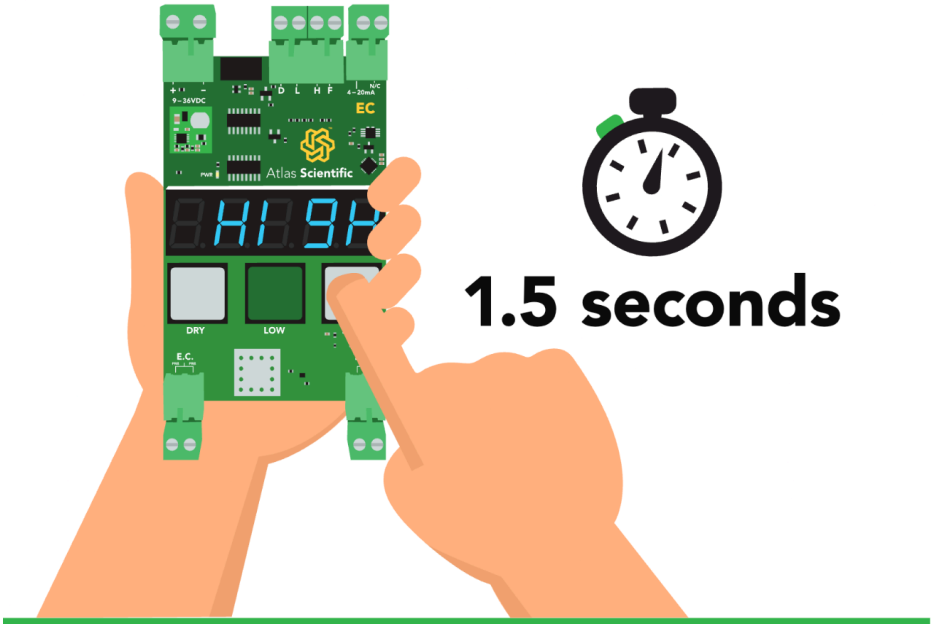
Probe type	Low point calibration
K 0.1L	84µs
K 0.1	1,413µs
K 1.0	12,880µs



5. **High point calibration:** The probe should be put in the correct high point calibration solution.

   Wait until the conductivity readings stabilize. Press and hold the HIGH calibration button for 1.5 seconds. The screen will display “HigH” then “dONE”. The High point calibration has been completed.

Probe type	High point calibration
K 0.1L	1,413µs
K 0.1	12,880µs
K 1.0	80,000µs



The conductivity readings will not change after low point calibration. The readings will change only when both high and low point calibration has been completed.

pH Transmitter Sensor Calibration

Calibration: The Atlas Scientific Industrial pH Transmitter has a flexible calibration protocol, allowing for single point, two points, or three-point calibration. The calibration data is stored in the EEPROM and will be retained even if the Transmitter is powered off. The calibration values are 4.00, 7.00, and 10.00

Note

The first calibration point must be pH 7.00
Calibrating to pH 7.00 will reset the stored calibration. If two, or three point calibrati has been done in the past, it must now be redone.

There is no correct order when calibrating to **4.00** and/or **10.00**. Recalibrating these two points will not have any effect on the other stored calibration points. Calibrating the Industrial pH Transmitter to **4.00** and/or **10.00** can be done at any time.

No calibration

Single point calibration

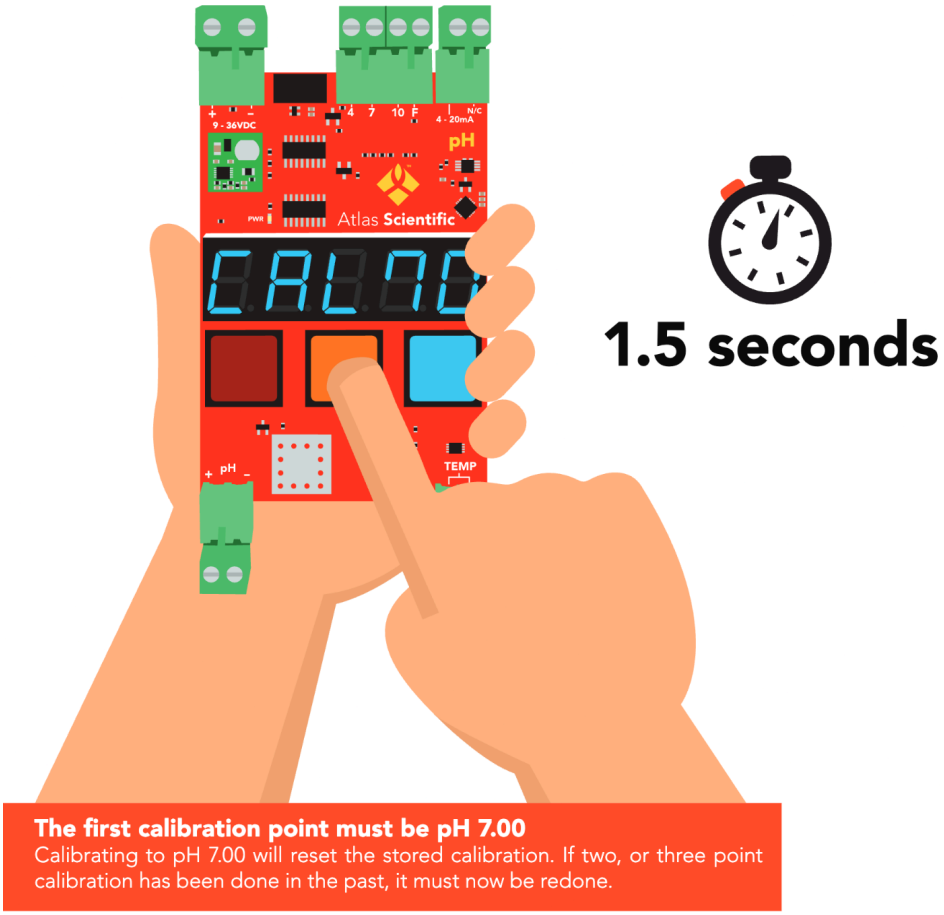
Two point calibration

Two point calibration will provide high accuracy between **7.00** and the second point calibrated against, such as a **4.00**.

Three point calibration

Three point calibration will provide high accuracy over the full pH range. Three point calibration at **4.00**, **7.00** and **10.00** should be considered the standard.

On board Calibration: To begin the on-board calibration process, press and hold the middle orange button for 1.5 seconds to calibrate to a pH of 7.00

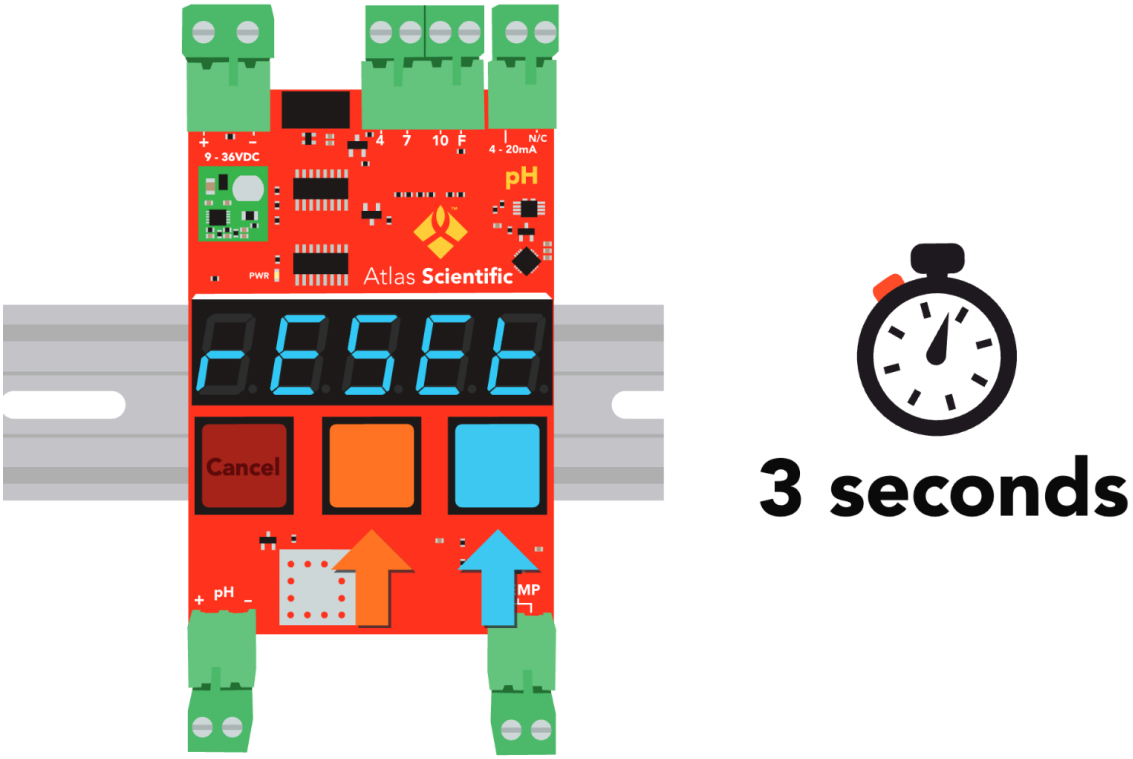


The display will flash: CAL7.0, after a few seconds the display will then flash: donE
If two point or three-point calibration is required, repeat this process to calibrate for pH 4.00 (left red button) and pH 10.00 (right blue button).

Factory Reset: If necessary all transmitters can be rebooted to original settings by performing a Factory Reset:

The Industrial pH Transmitter can be reset to its default settings. To issue a factory reset, press and hold the orange and blue buttons for three seconds.

The display will flash: “rESET”



Press and hold the **orange** and **blue** buttons again to confirm the factory reset.
To cancel a factory reset, press the **red** button.