

Setup Menu

How to Enter in Setup Menu

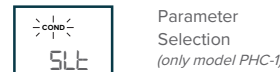
Instrument OFF



Long press CAL Power on

Instrument with 2 Buttons

Controls



COND / TDS



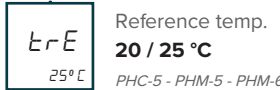
YES / NO

Instrument with 3 Buttons

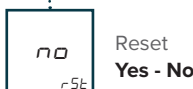
Controls



Temperature Unit °C - °F



Temp. coefficient 0.00 ... 4.00 %



MODELS

DATA SHEET



|                                  | PHH-1                      | PHC-1                      | PHO-4                      | PHH-5                      | PHH-7                      | PHC-5                      | POP-5                      | PHM-5                         | PHM-6                               |
|----------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-------------------------------|-------------------------------------|
| Parameters                       | pH - Temp                  | Cond - TDS                 | pH - ORP - Temp            | pH - Temp                  | pH - Temp                  | Cond - TDS - Salt - Temp   | ORP - Temp                 | pH - Cond - TDS - Salt - Temp | pH - ORP - Cond - TDS - Salt - Temp |
| pH measuring range               | 0 ... 14                   | -                          | -2 ... 16                  | -2 ... 16                  | -2 ... 16                  | -                          | -                          | -2...16                       | -2...16                             |
| Resolution                       | 0.1                        | -                          | 0.01                       | 0.01                       | 0.01                       | -                          | -                          | 0.01                          | 0.01                                |
| Relative accuracy                | ± 0.1                      | -                          | ± 0.01                     | ± 0.01                     | ± 0.01                     | -                          | -                          | ±0,01                         | ±0,01                               |
| Points of calibration            | 1...2                      | -                          | 1...3                      | 1...3                      | 1...3                      | -                          | -                          | 1...3                         | 1...3                               |
| Buffer auto recognition          | 3 USA Buffer               | -                          | 5 USA Buffer               | 5 USA buffer               | 5 USA buffer               | -                          | -                          | 5 USA buffer                  | 5 USA buffer                        |
| Calibration points indication    | YES                        | YES                        | YES                        | YES                        | YES                        | YES                        | YES                        | YES                           | YES                                 |
| Stability measurement indication | YES                        | YES                        | YES                        | YES                        | YES                        | YES                        | YES                        | YES                           | YES                                 |
| Electrode condition              | -                          | -                          | YES                        | YES                        | YES                        | -                          | -                          | YES                           | YES                                 |
| mV (pH) measuring range          | -                          | -                          | -1000 mv...+1000 mv        | -1000 mv...+1000 mv        | -1000 mv...+1000 mv        | -                          | -                          | -1000 mv...+1000 mv           | -1000 mv...+1000 mv                 |
| Resolution                       | -                          | -                          | 0.1 / 1 mv                 | 0.1 / 1 mv                 | 0.1 / 1 mv                 | -                          | -                          | 0.1 / 1 mv                    | 0.1 / 1 mv                          |
| mV (redox) measuring range       | -                          | -                          | -1000 mv...+1000 mv        | -                          | -                          | -                          | -1000 mv...+1000 mv        | -                             | -1000 mv...+1000 mv                 |
| Resolution                       | -                          | -                          | 0,1 / 1 mv                 | -                          | -                          | -                          | 0,1 / 1 mv                 | -                             | 0,1 / 1 mv                          |
| Calibration                      | -                          | -                          | 1 point                    | -                          | -                          | -                          | 1 point                    | -                             | 1 point                             |
| COND measuring range             | -                          | 0,01 µS ... 199,9 mS       | -                          | -                          | -                          | 0,01 uS...199,99 mS        | -                          | 0,01 uS...199,99 mS           | 0,01 uS...199,99 mS                 |
| Resolution                       | -                          | Automatic scale            | -                          | -                          | -                          | Automatic scale            | -                          | Automatic scale               | Automatic scale                     |
| Relative accuracy                | -                          | ±2 % full scale            | -                          | -                          | -                          | ±2 % full scale            | -                          | ± 2% full scale               | ±2 % full scale                     |
| Calibration points COND          | -                          | 1...2                      | -                          | -                          | -                          | 1...3                      | -                          | 1...3                         | 1...3                               |
| Calibration standard recognition | -                          | 1413 µS / 12.88 mS         | -                          | -                          | -                          | 84 µS/ 1413 µS/ 12.88 mS   | -                          | 84 µS/ 1413 µS/ 12.88 mS      | 84 µS/ 1413 µS/ 12.88 mS            |
| Indication of calibration points | -                          | YES                        | -                          | -                          | -                          | YES                        | -                          | YES                           | YES                                 |
| TC Temperature coefficient       | -                          | 0.00 ... 4.00% / °C        | -                          | -                          | -                          | 0.00 ... 4.00% / °C        | -                          | 0.00 ... 4.00% / °C           | 0.00 ... 4.00% / °C                 |
| TR Reference temperature         | -                          | 25°C                       | -                          | -                          | -                          | 20 / 25°C                  | -                          | 20 / 25°C                     | 20 / 25°C                           |
| TDS measuring range              | -                          | 0.01 ppm ... 199,9 ppt     | -                          | -                          | -                          | 0,01 ppm ... 199,9 ppt     | -                          | 0,01 ppm ... 199,9 ppt        | 0,01 ppm ... 199,9 ppt              |
| TDS Factor                       | -                          | 0.40 ... 1.00              | -                          | -                          | -                          | 0.40 ... 1.00              | -                          | 0.40 ... 1.00                 | 0.40 ... 1.00                       |
| Relative accuracy                | -                          | ±2 % reading value         | -                          | -                          | -                          | ±2 % reading value         | -                          | ±2 % reading value            | ±2 % reading value                  |
| Salinity measuring range         | -                          | -                          | -                          | -                          | -                          | 0,01 mg/l ... 100,0 g/l    | -                          | 0,01 mg/l ... 100,0 g/l       | 0,01 mg/l ... 100,0 g/l             |
| Temperature measuring range °C   | -                          | -                          | 0 ... 60 °C                | 0 ... 60 °C                | 0 ... 60 °C                | 0 ... 60 °C                | 0 ... 60 °C                | 0 ... 60 °C                   | 0 ... 60 °C                         |
| Resolution/Accuracy              | -                          | -                          | 0.1 / ± 0.2 °C             | 0.1 / ± 0.2 °C             | 0.1 / ± 0.2 °C             | 0.1 / ± 0.2 °C             | 0.1 / ± 0.2 °C             | 0.1 / ± 0.2 °C                | 0.1 / ± 0.2 °C                      |
| Auto off                         | YES, after 8 min. not used | YES, after 8 min. not used | YES, after 8 min. not used | YES, after 8 min. not used | YES, after 8 min. not used | YES, after 8 min. not used | YES, after 8 min. not used | YES, after 8 min. not used    | YES, after 8 min. not used          |
| Display                          | LCD                        | LCD                        | 3 color backlit LCD        | 3 color backlit LCD        | 3 color backlit LCD        | 3 color backlit LCD        | 3 color backlit LCD        | 3 color backlit LCD           | 3 color backlit LCD                 |
| IP Protection                    | IP 67                      | IP 67                      | IP 67                      | IP 67                      | IP 67                      | IP 67                      | IP 67                      | IP 67                         | IP 67                               |
| Battery life                     | > 300 Hrs                  | > 300 Hrs                  | > 200 Hrs                  | > 200 Hrs                  | > 200 Hrs                  | > 200 Hrs                  | > 200 Hrs                  | > 200 Hrs                     | > 200 Hrs                           |
| Replaceable sensor               | X                          | X                          | ●                          | ●                          | ●                          | ●                          | ●                          | ●                             | ●                                   |

Waterproof  
pH Testers  
QUICK GUIDE



pH Calibration

2 point calibration

Instrument ON

1 Press CAL

2 Rinse with deionized water and dry

3 Put the probe in buffer solution pH 7.00

4 Wait for stability indication

5 Press CAL to confirm

2nd point

6 Rinse with deionized water and dry

7 Put the probe in buffer solution pH 4.01

8 Wait for stability indication

9 Press CAL to confirm

10 Press ESC

- Press **ESC** to exit from the calibration, at any time.
- Store pH electrode in **STORAGE** solution
- Do not** store pH electrode in **water**
- At the first use, replace the gel storage in the cap with the **liquid storage** solution.

COND Calibration

2 point calibration

Instrument ON

1 Press CAL

2 Rinse with deionized water and dry

3 Put the probe in reference solution 1413 uS

4 Wait for stability indication

5 Press CAL to confirm

2nd point

6 Press CAL

7 Rinse with deionized water and dry

8 Put the probe in reference solution 12.88 mS

9 Wait for stability indication

10 Press CAL to confirm

Temperature compensation:

Conductivity measures are automatically compensated in temperature. It is possible to change the reference temperature in the setup Menu.

ORP Calibration

Manual calibration on 1 point

Instrument ON

1 Press CAL

2 Rinse with deionized water and dry

3 Put the probe in reference solution

4 Wait for stability indication

5 Stable value starts blinking

One way adjustment:

Press MODE until you reach the right value.

Maximum adjustment allowed is +75 mv or -75 mv from the starting point.

6 Press MODE

7 Press CAL to confirm the chosen value.

- Store ORP electrode in **STORAGE** solution
- In calibration, to low the value**, continue to press Mode button. The value increase, but after reaching the high limit (+75mV from the s.p.), It jumps to -75 mv from the starting point.

DISPLAY

Parameter

Battery level

Measure

Stability indication

Points of calibration

Temperature

DISPLAY Colours

Measure Mode

Calibration Mode

Alarm

REMOVE THE PROTECTION

The electrode is stored in a gummy protection cap. Remove it before using the tester, and place it back at the end, filled with new storage solution.

BATTERIES

Tester works with normal and rechargeable batteries: 2 x AAA 1.5 V

1

2

3

4

5

6

| Error | Contents                                                                           | DESCRIPTION                                                                                                                        |
|-------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Er 1  | Wrong pH buffer solution, or the recognition of calibration solution out of range. | 1. Check the buffer solution is pristine.<br>2. Check the connections of the electrode.<br>3. Replace pH electrode with a new one. |
| Er 2  | Measure not stable.<br>Wait for stability icon ☺                                   |                                                                                                                                    |
| Er 3  | During calibration, the measuring value is not stable for ≥3min.                   | 1. Check for air bubbles in glass bulb.<br>2. Replace pH electrode with a new one.                                                 |
| Er 4  | Electrode potential out of range <-60mV or >60mV                                   |                                                                                                                                    |
| Er 5  | Electrode slope out of range <85% or >110%                                         | 1. Check for air bubbles in glass bulb.<br>2. Check the buffer solution is pristine<br>3. Replace pH electrode with a new one.     |

SENSOR Replacement  
\*Only for 4-5-6-7 series

1

2

3

4