

pH-Monitor

Instructions for Use

Ref: pH Monitor Aug 20

Contents

Page

2	Connection guide
2	General description
2	Operating Hints
2	Safety
3	Accuracy
3	Electrical Supply
3	Calibration
4	Target pH Range
4	Measurement Type
5	Installation
5	pH Amplifier Box
5	Alarms
5	Tx Connection
5	ORP Option
5	Spare Parts & Accessories

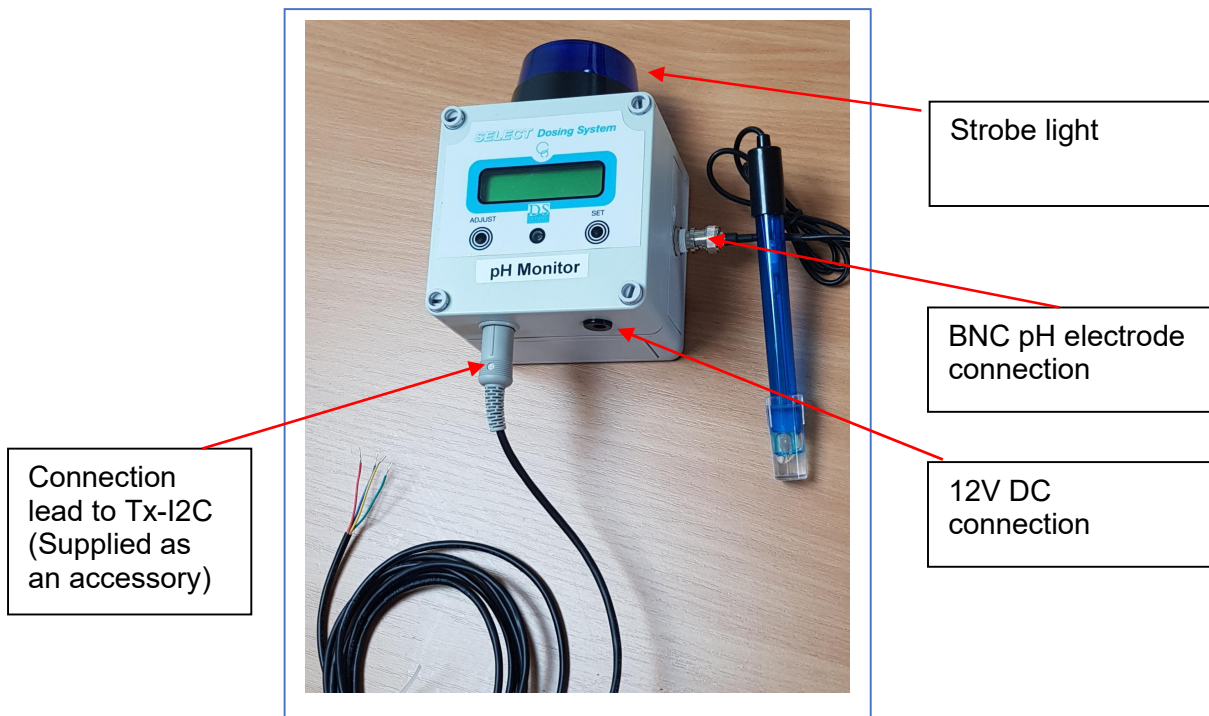


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Connection Guide



Description

The pH-Monitor is a useful device for displaying the current pH value in a liquid as well as having a strobe light which will flash when the pH is outside a chosen value range.

A siren can also be added for added operator awareness.

The pH-Monitor can be connected to Tx (see www.dosingsolutions.com for information). Using Tx will allow for hourly pH values to be sent to nominated parties by SMS as well as instant Alerts being sent should the pH stray outside the chosen limits.

There are no user serviceable parts inside the PH Control doser.

Operating hints

Always keep the pH electrode top moist. If it dries out it will no longer function

Do not completely submerge the pH electrode. Only the sensing tip should be immersed in the process liquid.

Periodic calibration of the pH electrode is necessary to maintain accuracy.

Safety

The pH-Monitor is an extremely safe unit. However, the following points should be observed:

Normal electrical safety precautions apply. Avoid water contact with any internal parts apart from the electrode in normal working. Do not immerse the pH-Monitor.

Take precautions to ensure the pH-Monitor cannot fall into liquid tanks. Consider extra tethering if necessary. If immersion does happen accidentally, isolate the pH-Monitor from the electrical supply immediately.

The use of safety circuit breakers is recommended. If in doubt seek advice from a qualified electrician.

Accuracy

The pH Monitor is designed to give accurate readings. However, accuracy will depend on regular calibration of the pH probe using fresh buffer solutions.

It is the responsibility of the user to ensure that the pH-Monitor is performing accurately.

Electrical Supply

The PH Control doser uses a 12V DC power supply. This can either be supplied from a 12V battery or via a transformer power supply from the mains electricity supply.
A 1A maximum current power supply is recommended.

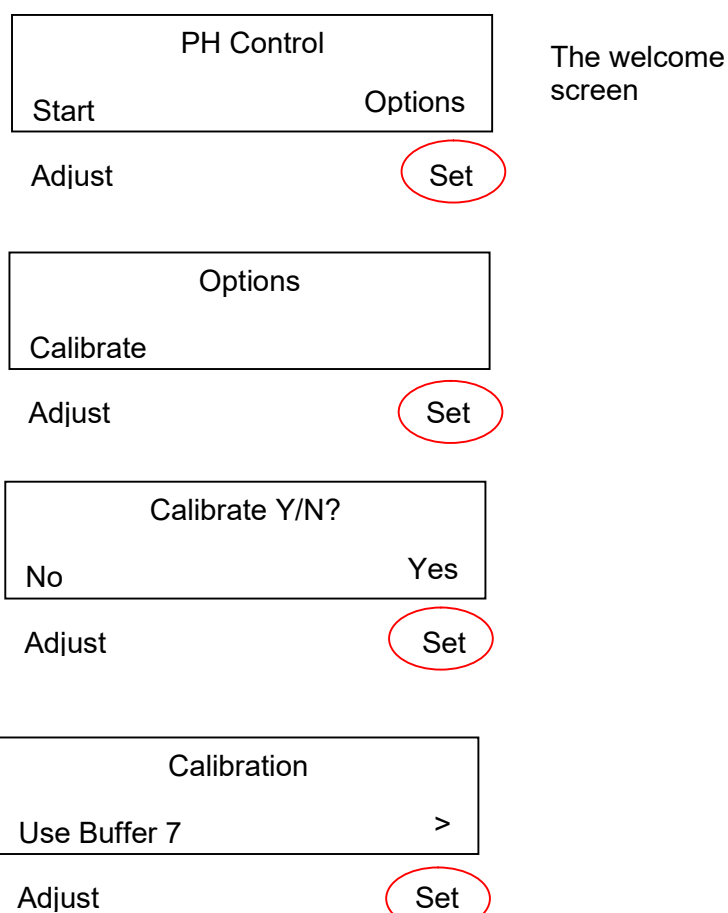
Options

Calibration

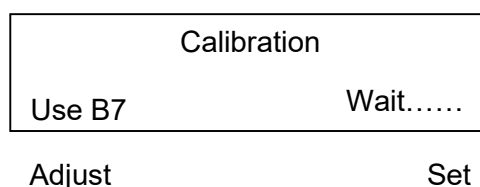
Accuracy of dosing depends on regular calibration of the pH probe. Although high quality probes are supplied with the pH-Control doser that should hold their calibration for several months, it is advisable to calibrate the probe frequently depending on the level of accuracy required.

Use only fresh buffer solutions for calibration.

The firmware version number screen will be shown for a couple of seconds, then go to Options (press Set) and Calibrate (press Set)



Insert the pH electrode into pH 7.0 buffer solution before pressing Set. The following screen will appear whilst the electrode is being calibrated against the pH 7.0 buffer solution:



Calibration	
Use Buffer 4	>

Adjust

Set

Insert the pH electrode into pH 4.0 buffer solution before pressing Set. The following screen will appear whilst the electrode is being calibrated against the pH 4.0 buffer solution:

Once the pH 4.0 calibration is complete, the next screen to be shown is the Welcome Screen.

The pH Monitors are calibrated before despatch.

Target pH Range

From the Welcome Screen, press "Options" (Calibrate will be shown), press "Adjust" and "Set Lower Limit" will be shown. Press "Set".

Low Limit?
7.7

Adjust

Set

Press "Adjust" to scroll through pH values from 1.0 to 13.9. Choose the pH value:

When the desired value is shown, press "Set".

Repeat the last stages to set the High limit.

If you want the Alarm (flashing light to be activated if a pH is detected lower than the lower limit that you have set, press Adjust to toggle between Y (Yes) and N (No). When done, press Set.

Enable Alarm?
N

Adjust

Set

Measurement Type

There are two measurement types – Direct and Average.

If Direct is selected, the doser will take an instantaneous reading from the pH electrode and use this to calculate dosing.

If the Average type is selected, the doser uses a rolling average of electrode pH readings taken over the previous 30 seconds. This method has a dampening effect on the doser performance that may be useful in some situations.

From the Welcome Screen, press "Options" (Calibrate will be shown), press "Adjust" and "Set Lower limit" will be shown. Press "Adjust" and "Set Upper Limit" will be shown, press "Adjust" and Measurement Type option will be shown. Press "Set". Chose between Direct and Average by toggling using the Adjust button.

Installation

Connect the pH electrode to the BNC socket only (as shown in pictures above).

The PH Monitor can be powered from a 12V battery or via a 12V DC 1A transformer from the mains electricity supply. Position the Monitor so as to be convenient for both a power source if power is to be taken via a transformer from the mains, and to the bulk liquid or water pipe to be monitored. Ensure that the pH Monitor is properly secured to prevent it becoming immersed.

pH Amplifier

The lead length of pH electrodes is generally only about 3 – 5m. If you need to have a greater distance between the pH electrode and the Monitor, Dosing Solutions manufactures a pH Amplifier box. This Amplifier box can be situated near to the point where the electrode is sensing pH, then a cable can run for up to 50m to the Monitor.

Alarms

When a detected pH level is outside the chosen range, and you have activated the alarms under Options, a strobe light and/or siren can be activated. A strobe light can either be attached to the Monitor or be on an extension cable.



Tx

If you wish to receive SMS Alerts when the pH levels are outside your chosen range, Dosing Solutions manufactures the Tx range of data communication boxes. Connections between the pH Monitor and Tx are simple, and Tx is an inexpensive way to stay informed of problems in water lines or tanks. For details go to dosingolutions.com.

ORP

A version of the Monitor is available to connect to an ORP electrode. ORP can also be connected to Tx.

Spare Parts and Accessories

Item		Code
pH Monitor	Unit	40TX00
pH electrode	Unit	710CA00
pH Amplifier	Unit	42TX00
ORP Monitor	Unit	40TX01
Sachet of pH 4.0 buffer solution	25ml	720CA04
Sachet of pH 7.0 buffer solution	25ml	720CA07
Bottle of pH 4.0 buffer solution	460ml	720CA14
Bottle of pH 7.0 buffer solution	460ml	720CA17