

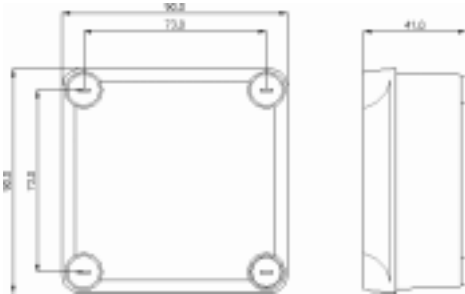
Operating Instructions

Thank you for purchasing the Oakton pH Transmitter

1 Description of Unit

The Transmitter is used for the continuous measurement of pH from 0 to 14. Data output is via 4-20 mA current output. The Transmitter is housed in a IP65 enclosure, with openings for input and 4-20mA output.

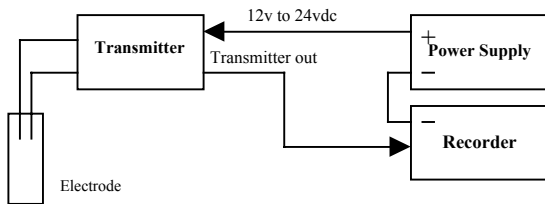
2 Diagram and Dimensions



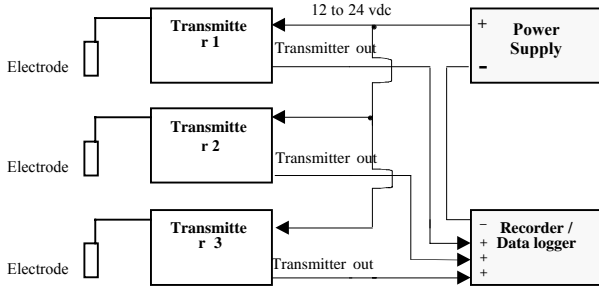
All dimensions in mm

3 INSTALLATION

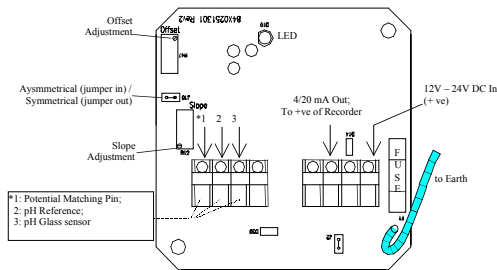
3.1 Operating with only one Transmitter:



3.2 Operating with several Transmitters:



3.3 pH Transmitter Electrical Connections



NB: In electrically "noisy" environments, select 'Symmetrical' mode of operation and connect a stainless steel rod (Potential Matching Pin - PMP) as shown above. Ensure both the PMP and pH electrode are immersed into the solution, even when performing calibration.

3.4 pH Transmitter Calibration

Remove cover of Transmitter and ensure that electrode is correctly connected as explained in Section 3.3. Connect Amp meter to the 4/20mA output of Transmitter (see diagram below).

Calibrate in pH 7.00 buffer first, and then in either pH 4 or pH 10.

- First, immerse clean pH electrode into a container with fresh pH 7.0 buffer solution;
- Amp meter should read 12mA; if not, calibration is necessary;
- Locate "Offset adjustment" trimmer;
- Using a fine screwdriver, slowly turn trimmer till Amp meter reads 12mA;
- For greater accuracy, adjust slope with pH 4 or pH 10;
- Rinse probe in de-ionised water and immerse in either pH 4.01 or pH 10.01 buffer solution;
- In pH 4.01, the output is 8.54mA;
- In pH 10.01, the output is 15.44mA;
- Using a fine screwdriver, slowly turn trimmer, marked 'slope', till Amp meter reads correct mA value with respective buffer solutions.

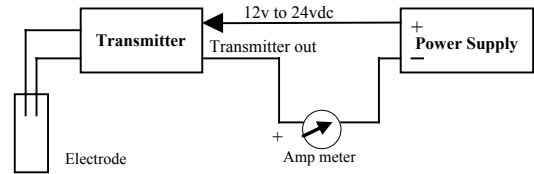
Remember to disconnect Amp meter and close cover.

NB: For other buffer values, expected current output is based on:

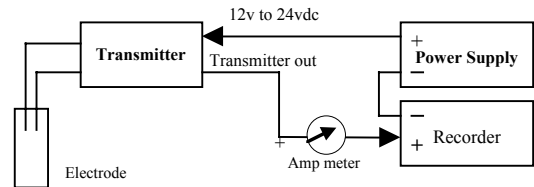
$$mA = \{(16/14) \times \text{buffer pH value}\} + 4mA$$

3.5 Connecting Amp Meter for Calibration

Method I



Method II



4 pH Transmitter, Specifications

Model	WD-35150-00
Range	0.00 to 14.00 pH
Accuracy	± 0.05 pH
Calibration	Offset ± 1 pH; Slope 80 to 120 %
Input	Asymmetrical (2-wire) or Symmetrical (3-wire with Potential Matching Pin)
Output	4-20 mA
Operating Voltage	DC 12 V to 24 V
Load	100 Ohms max. for 12 V; 600 Ohms max. for 24 V
Housing	77 x 77 x 28 mm, field mountable