

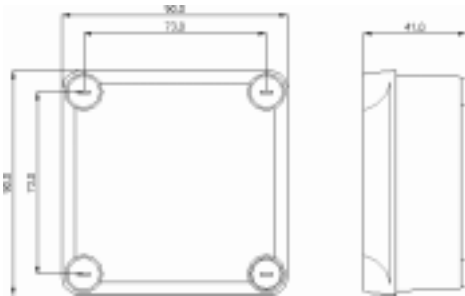
Operating Instructions

Thank you for purchasing the Oakton ORP Transmitter

1 Description of Unit

The Transmitter is used for the continuous measurement of ORP (REDOX) from 0 to 1000mV. 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.

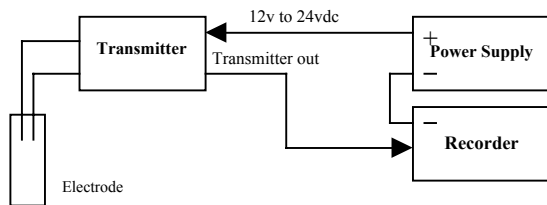
2 Diagram and Dimensions



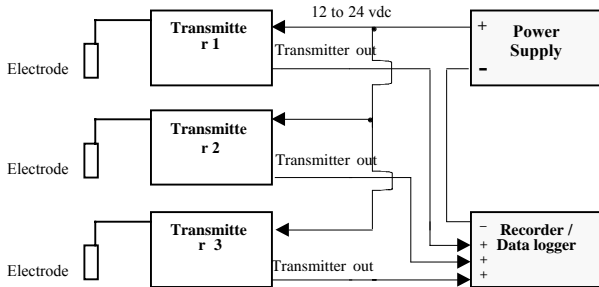
All dimensions in mm

3 INSTALLATION

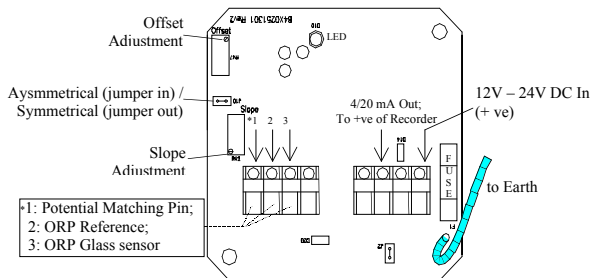
3.1 Operating with only one Transmitter:



3.2 Operating with several Transmitters:



3.3 ORP Transmitter Electrical Connections



Note: 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 ORP electrode are immersed into the solution, even when performing calibration.

3.4 ORP 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 below).

Prepare fresh Standard solutions, such as 255mV, 470mV.

- Short ORP inputs and observe Amp meter display;
- Amp meter should read 4mA; if not, calibration is necessary;
- Locate "Offset adjustment" trimmer;
- Using a fine screwdriver, slowly turn trimmer till Amp meter reads 4mA;
- For greater accuracy, adjust the slope with Standard calibrating solutions;
- Rinse probe in de-ionised water and immerse in standard solution;
- In 255mV solution, the output is 8.08mA;
- In 470mV solution, the output is 11.52mA;
- Using a fine screwdriver, slowly turn trimmer, marked 'slope', till Amp meter reads correct mA value with respective Standard solutions.

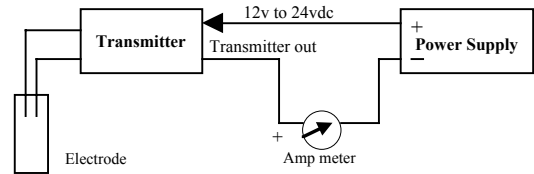
Remember to disconnect Amp meter and close cover.

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

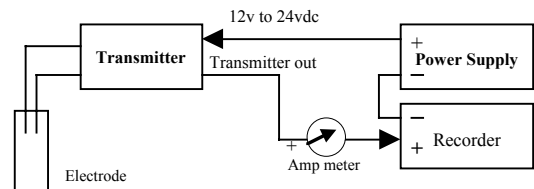
$$mA = \{(16/1000) \times ORP \text{ value of Standard solution}\} + 4mA$$

3.5 Connecting Amp Meter for Calibration

Method I



Method II



4 ORP Transmitter, Specifications

Model	WD-35150-05
Range	0 to 1000 mV
Accuracy	± 3 mV
Calibration	Offset ± 50 mV; 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