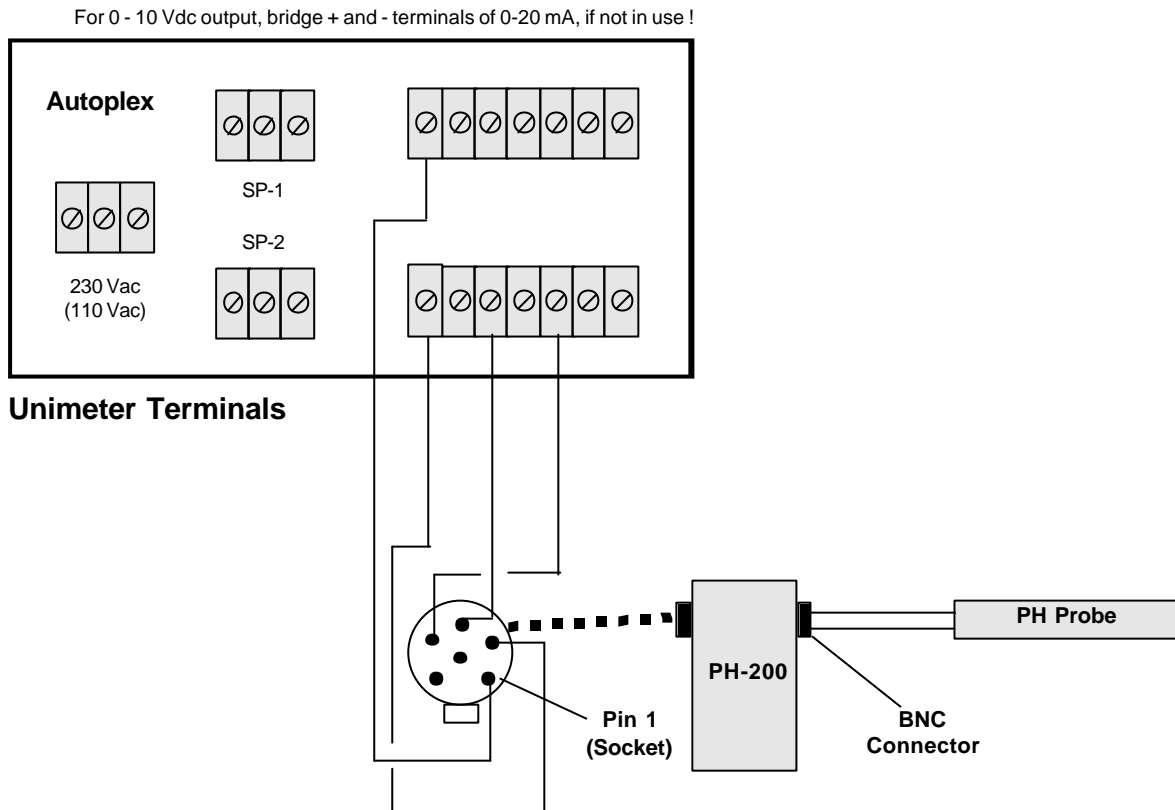


Unimeter XQL PH-200 connections

Function 77



Unimeter to PH-200 Plug Connections:

Unimeter Pin	PH-200 Plug Pin Number
P/S + (Grey)	1
P/S - (Grey & Black)	2
0-10V - (Blue)	3
Input + (Yellow)	4

Calibrate the pH probe using the Unimeter's Span offset or 100 point Linearization functions.

pH is measured on a scale of 1 to 14 where 1 represents acidic, 7 neutral and 14 basic therefore, the Unimeters analogue output span must be changed to 1-14 in order to produce max Unimeter output at maximum pH, and likewise minimum Unimeter output at minimum pH. This is done by setting the 'analog output span upper limit' to 14 and likewise the 'analog output span lower limit' to 1.

In order to use the PH-200 adapter in conjunction with a pH probe to measure the pH of a system. The Unimeter's user power supply must be set to 10Vdc(SF 235), and the Unimeter must be operating in function 77.

Analog Output Span Upper Limit

SF 5

This special function will program the analog output and the display bargraph span upper limit as required. The range is from -19999 through 0.00 to +19999. The default value is 100.0. Any desired display range may be represented as 0 to 10 Vdc, 0 to 20 mAdc or 4 to 20 mAdc at the analog outputs and display bargraph.

Example:

A display range from 20.00 to 85.00 is required to generate an analog output from 0 to 10 Vdc. This is simply done by entering 85.00 by this special function and 20.00 by special function number 4. (Note: The value entered by this special function must always be larger than the value entered by special function 4.)

pH Monitor

Function 77

Select user power supply = 10 Vdc for PH-200 Interface.

Selection of the above function will configure the UNIMETER as a pH monitor and controller. The display will indicate 0 to 14 (and beyond) for the input of +/- 413 mV. Standard pH sensors can be connected via a PH-200 interface. This interface will minimise temperature effects and impedance match a wide variety of sensors. Large separation distances between probe and Unimeter can be achieved if the interface is located at the sensor to avoid external influences.

In the case where the pH probe measurements are non-linear, the Unimeter may be calibrated using the 100 point linearization process so that accurate pH level reading can be achieved. For the 100 point linearization process a number (the more the better) of pH buffers will be required to calibrate the Unimeter. In the linearization process the 1% should be set at 1.00 and 100% set a 14.00. The Unimeter span offset can be used to adjust one of these values.

Example: If the a pH 1 buffer is being used and the Unimeter has a reading of 1.1, the span offset (SF 1) should be set to -0.1 to compensate.