

## Microprocessor pH ORP Controller



**MODEL DPH 513**

**DPH 513** is a full featured pH / ORP Controller, ideal for Batch and Semi-Continuous Processes that require **"Critical Control"** using only minimum dosing reagents to Control pH.

It is a unique **"Mark Space"** (Shot & Delay) **Control Algorithm** which adapts to any process dynamics and maintains extremely tight control with absolute minimum quantity of reagent dosing requirement.

### FEATURES

- Microprocessor based, Real Time Fault Tolerant Design.
- User Selectable pH or ORP Control Mode
- Advanced Signal conditioning provides exceptionally stable reading which adapts to virtually any Titration curve.
- Extremely tight pH control with fast response. Ideally suited for long duration and critical Fermentation and Batch processes.
- Simple ON / OFF Control elements used which are low cost & easy to maintain
- User selectable NIST or US Buffer set for Calibration
- Powerful 3 Point Software Calibration with Automatic Buffer recognition and Buffer pH Compensation for Temperature
- "Electrode Condition Monitoring"** with warnings for poor electrode condition.
- Digital input for **"Control Halt"** from PLC or other Process Automation & Control System
- Available in Weatherproof IP65 or Flameproof Enclosures

## **GLOBAL ELECTRONICS**

**(An ISO 9001:2008 Company)**

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## SPECIFICATIONS

|                          |  |              |                     |
|--------------------------|--|--------------|---------------------|
| Display                  | : 7 Digit, High Brightness 7 Segment LED Display with 11 Annunciator LED's   |              |                     |
| Display                  | : 4 Digits for pH / mV, 3 Digits for Temp.<br>And all 7 for Msgs.<br>Annunciators for ATC, MTC, °C, RD, pH, mV   |              |                     |
|                          | <b>pH</b>  | <b>mV</b>    | <b>Temp</b>         |
| Measurement Range        | : -2.00 to 15.99   | ±1999        | -50°C to +200°C     |
| Resolution               | : 0.01   | 1            | 0.1 (-19.9 to 99.9) |
| Accuracy                 | : 0.1%±1 digit   | 0.1%±1 digit | 0.1%±1 digit        |
| Reproducibility          | : 0.01   | 1            | 0.1                 |
| Temperature Compensation | : Manual / Automatic -30 to 150°C (RTD PT100)  |              |                     |
| Input Impedance          | : > 10 Tera Ohms   |              |                     |
| Input Bias Current       | : < 1 pA @ 25°C  |              |                     |
| AP Range                 | : ± 75 mV  |              |                     |
| Slope:                   | : 75% to 125%  |              |                     |
| Programming              | : Through user friendly keyboard and Prompting Display   |              |                     |
| Calibration              | : <b>pH</b> : 2 or 3 Point Calibration using any of the following :<br>USA : 4.01, 7.00 Buffers or<br>NIST : 4.01, 6.86 * 9.18 Buffers<br><b>Temperature</b> : Single and Two Point at any Temperature |              |                     |
| Control Limits           | : 6 Programmable limits for pH / ORP Mode & 1 Hi Temperature Limit.  |              |                     |
| Control                  | : <b>Dual Mark Space Control</b> with Relay outputs for Hi, Lo relays @230 V AC, 3A for resistive Load.  |              |                     |
| Output                   | : RS485 (MODBUS)   |              |                     |
| Operating Temperature    | : -10 to + 45°C  |              |                     |
| Power                    | : 110 / 230V ± 45 to 55Hz, 10 VA   |              |                     |
| Dimensions               | : Panel Mount :96 (W) x 96 (H) x 150mm (D)<br>Wall Mount : 200 (W) x 200 (H) x 150mm (D)<br>Flameproof : 250 (W) x 250 (H) x 200mm (D)   |              |                     |

DATA AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

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