

ORP/mV CONTROLLER PMV-1



FEATURES

- 0-1000mV range with 1mV resolution.
- Set point adjusted on front panel.
- Large 3 1/2 digital LCD display. Also displays mV for the setpoint .
- 240VAC/5A relay output easily connected via 3 way terminal strip.
- Increased fine tuning of dosing with automatic pulse width modulation.
- Fully isolated 4-20mA current output over 0-1000mV range.
- Alarm output with high and low set point. Potential free relay contacts.
- Thermo plastic enclosure with transparent cover. Rated to IP55 specifications

THE RIGHT CHOICE



SPECIFICATIONS

Range:	0 to +1000mV with 1mV resolution
Display:	3 1/2 digit LCD display
Indicators:	LED lights to indicate set point operation, pulse mode and flow.
Calibration:	Offset calibration accessible by removing front section.
Electrode:	BNC, external of housing.
Signal output:	4-20mA for 0mV to +1000mV. Screw terminals for fully isolated 4-20mA output located by removing front section.
Control range:	Set point range 0mV to +1000mV
Hysteresis:	Internally set at 2% of range.
Pulsed output:	Pulse width adjusts automatically to suit dosing requirements. On time changes from continuous to 0.5 seconds. Pulse interval increases / decreases to further fine-tune a dosing cycle.
Output relay:	240 VAC, 5 Amps max. resistive load. 3 terminals provide earth, neutral and active. 5A fuse protects instrument and relay output.
Alarm relay:	Potential free contacts.
Power:	240VAC 50Hz 7VA max.
Housing:	Thermoplastic with transparent lid. Rated IP 55
Dimensions:	(W)130mm x (H)95mm x (D)85mm.

FEATURES

The PMV-1 instrument measures and processes millivolts generated from an ORP electrode.

The 0 to +1000mV range will suit most dosing installations where an ORP measurement as input is used.

The relay output drives a 240V dosing pump or solenoid valve. The PMV-1 is particularly suitable for chlorine or bromine dosing.

Three LED lights indicate the mode of operation. A green LED shows the status of the output relay. One red LED indicates if the PMV-1 is in pulse mode. A third flashing red LED warns if the water flow through the system has stopped. (A flow switch must be connected for the last option to operate.)

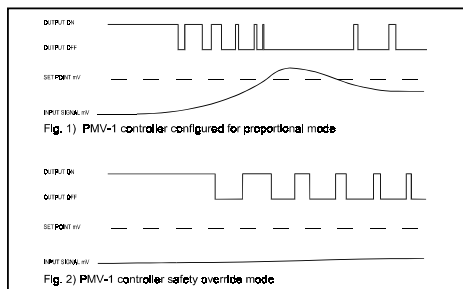
The large LCD display shows either signal input or set point value in mV. No extra configuration is required apart from the set point for accurate dosing.

The relay output of the PMV-1 instrument is controlled through a complex algorithm that continuously monitors the difference between actual mV and set point. The output starts to pulse and varies the ON/OFF cycle as the mV input approaches the set point value. The ON/OFF cycle however is also adjusted from a 'correction factor', which in turn is governed by the history of previous dosing cycles. This makes for a fully dynamic dosing control which adapts for widely varying conditions in a cooling tower or other plant installations.

Additional features built into the program of the PMV-1 prevent gross overdosing in the event of a process upset or electrode failure.

Dosing for an excessive period of time without a corresponding increase in mV is recognized as a possible failure. The output begins to pulse, preventing a gross overdosing.

The pulse output exhibits a very wide duty cycle. The ON and OFF times are both dynamic, both varying from 0.5 to 60 seconds.



Wiring the PMV-1 is easy. Simply unclip the front panel to reveal the terminals and trimpots. The output terminal for the relay provides 240VAC with active, neutral and earth. A pump or valve can be wired directly without the need for additional junction terminals.

A jumper in the front panel module disables the pulse mode if only simple set point control operation is required.

A second jumper configures the flow input for normally open or normally closed operation.

