

MonitorPro Station Supervisor

1 Description

The unit shall monitor, control, display and log functions of the connected MT3PC or MT2PC pump controller, as well as all events listed within this specification.

A user-friendly interface shall enable all configurations, programming, setting and display of controls and all functions without the need of a lap-top computer or other device.

The unit shall also be programmable via a lap-top computer where required.

2 Mounting

The unit shall have the ability to be DIN rail mounted or panel mounted.

The keypad shall be IP65 and capable of being mounted remotely on the front panel.

3 Display

A 40-character 4-line LCD display will indicate all starts, events and settings, including:

- Pump status for up to three pumps
- Current per phase for up to three pumps
- Most recent number of pump starts per hour for each pump
- Supply volts for each phase
- Hours run: total and last run for each pump
- Duration of high level and flood level alarms
- Total volume pumped
- Individual pump volume and flow rate
- Status of all faults
- Rainfall

All faults will be user-configurable and user-definable. Date and Time will be displayed and updated via communications or user inputs on key pad.

4 Current Monitoring

The unit will continually monitor and protect each pump for the following:

- Over-current for all phases for each pump
- Under-current for all phases for each pump
- Phase failure for each pump
- Earth fault for each pump
- Automatically carry out a 500V insulation test on each motor and log results

5 Voltage Monitoring

The following parameters settings must be available for selective display and adjustment from the front keypad as well as communications port.

- AC supply voltage
- DC supply voltage

6 Other Inputs

The unit will accept, in addition, the following user-configurable and user-definable inputs and outputs:

- 6 digital inputs
- 2 analogue inputs (4-20mA)
- 3 digital outputs (Dry Contact)
- 1 analogue output

All inputs and outputs can be assigned to carry out functions to both the MonitorPro and connected pump controller.

7 Flow

7.1 Volume & Flow

The unit shall calculate volume and flow and update continuously, allowing for inflow, variations in pit diameter, and multiple pumps operating simultaneously.

7.2 Flow Displays & Flags

The unit shall continually display volume and flow rates for each pump, total volume for pit, and new pump rate for each pump. A flag indicating adjustable low flow rate input shall warn of pump inefficiency or blockage.

7.3 Flow Calibration

The unit will automatically and continuously calibrate flow rates for all pumps once a single volumetric input is entered.

8 Communications

RS232 and RS422/RS485 communication links will be provided for downloading all logged data, and for telemetry.

Settings, parameters and controls will be fully accessible via the communications port or front keypad.

The units will be capable of being networked on an RS485 twisted pair link in such a manner that a number of groups of units and/or pump controller on different pits/tanks can be controlled and monitored fully.

These units will be capable of interfacing to a telemetry system using a single two-way radio and/or modem.

8.1 Data Logging

All events or user-selected events will be time-stamped and stored indefinitely.

8.2 Data Storage

The unit shall be able to store at least 65,000 events. When data storage is near full, the display shall advise, as well as notification via the communications port. When data log is full, oldest data will be erased to make room for new, current data.

8.3 Data Retrieval

All events will be displayed and scrolled via the local display; be down-loaded to a lap-top, or via telemetry or phone line.

8.4 Integrated Radio Modem

The unit shall be able to directly control and communicate with a 2-way radio for future telemetry.

8.5 Phone Modem

The unit shall interface to a standard telephone modem, if required via its RS232 communications port.

8.6 Date & Time

Will be displayed and updated via communications or user inputs on key pad.

8.7 Help Functions

When connected via the RS485 communications port to a MultiTrobe MT2PC or MT3PC pump controller, help displays will be shown when setting parameters, etc. on the pump controller.

8.8 Store & Forward

The unit shall be capable of forwarding messages and data between another site, using another of the same unit and the CMF. In this case, the unit shall still be capable of performing all other functions related to its own site.

9 Miscellaneous

The unit shall be powered by 10-30VDC, 240VAC or both, when back-up is required.

The unit shall have plug-in terminal connections for easy removal.

10 Further information

For more information, contact MultiTrobe on +61 7 3340 7000 or see the MultiTrobe web site at www.multitrode.com.



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