SMART 50M

BOILER CONDENSATE / COOLING WATER MONITOR

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PRINCIPLE OF OPERATION

Multiple optical sensors measures the combination of light absorbed and scattered by oil droplets in the sample stream. The sensor signals are read by a microprocessor which uses sophisticated algorithms to determine the concentration of oil and solids in the stream. The oil concentration is displayed on an alpha numeric display. A microprocessor drives a 4-20 mA current loop output which represents the concentration of oil. Two volt free alarms are driven when the oil concentration exceeds the set points. An Autoclean system is included to ensure the accuracy of the optical measuring system is maintained over extended periods of operation.

The microprocessor also measures various other parameters to determine the condition of the system to ensure that accuracy is maintained over time and various environmental conditions. A log of alarms and faults are stored on the system for maintenance purposes.

A contact closure, remote start-stop facility is included to enable sample conditioning when used as part of a system.

Three optional parameters can be displayed; these are PH, conductivity and oxygen concentration.

Remote monitoring is available via HART or Modbus.

A menu driven system allows the operator to set or display various conditions via the keypad

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SPECIFICATION

Ranges :	Large cell 0 – 10 ppm Medium cell 0 – 200 ppm
Accuracy	Large cell +/- 0.15 ppm Medium cell +/- 2 ppm
Resolution	Large cell 0.1 ppm Medium cell 1 ppm
Alarm 1 Operating Point	Large cell 1 – 10 ppm Medium cell 10 – 200 ppm
Alarm 2 Operating Point	Large cell 1 – 10 ppm Medium cell 10 – 200 ppm
Alarm 1 operating delay	1-15 seconds
Alarm 2 operating delay	1-600 seconds (and alarm2 off)
Alarm contact rating	5 AMP
Alarm relay mode	De-Energised in Alarm State
Output signal	4-20 mA
Projected Life (Electronics)	> 50,000 Hours
Ambient temperature	1-50 °C
Humidity	Max 98% non condensing
Sample temperature	1-95 °C
Sample Flow	0.3 to 3 Ltrs/Min
Sample Pressure	0.1-10 Bar
Clean Water requirements	Ask for sample
Weight	15Kg
Size	500 x 360 x 150mm
Supply voltage	110/220 v a.c
Supply variation	10% of nominal voltage
Supply frequency	50/60 Hz
Power consumption	15 VA
Degree of Protection	IP56

ISO 9001 FM 40958

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