



Innovation in Environmental & Process Technology

We **Understand** Water & Waste Water Monitoring

Multi-Channel Analyser

Dissolved Oxygen - Suspended Solids - pH - ORP

Any sensor combination

4 to 8 sensors

The Insite Instrumentation Group MCA Multi-Channel Analyser is a unique system that combines advanced electronics with the latest in sensor technology. The analyser will accept any combination of DO, SS, pH, or ORP sensors and automatically configure for the correct operation. The system allows for flexible and economical process monitoring and control. The DO sensor does not need membranes, fill solutions, nor replaceable sensor caps. The SS sensor is based on near infrared technology, eliminating inaccuracies caused by changes in the process colour. The pH electrodes are flat glass, double reference junction with temperature compensation. The ORP electrodes are flat glass, double reference junction. Both pH and ORP electrodes feature a quick dis-connect design that makes changing electrodes a snap and reduces down time due to electrode maintenance.



CH 1	25.2°C	CH 5	25.2°C
D.O.	1.38 ppm	D.O.	1.16 ppm
CH 2		CH 6	
TSS	2930mg/l	TSS	3200mg/l
CH 3	21.5°C	CH 7	24.9°C
ORP	- 67 mV	ORP	- 59 mV
CH 4	25.0°C	CH 8	21.3°C
D.O.	6.6 ppm	pH	7.14 pH



REMOTE MONITORING WITH A COMPUTER OR SMART DEVICE

By connecting the MCA to the new MCR Multi-Channel Remote transmitter all sensor data is uploaded to the cloud and can then be viewed from any computer or smart device with internet connectivity. A single three conductor cable connects the two units with a digital interface. The MCR will automatically configure the cloud with the sensors attached to the analyser. The MCR can also take up to four 4-20 milliamp inputs from third party devices such as level sensors, flow meters, etc. and will also put these signals on the cloud. In addition, the MCR can accept up to seven dry contact inputs for that can be used as alarms, status, run times, or other on/off type events.

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MCA Specifications	
Measuring Range	DO — 0 to 25 ppm SS — 0 to 30,000 mg/l pH — 2 to 12 pH ORP- +/- 2000mV
Accuracy	DO — 1% of reading or .05 ppm, whichever is greater SS — 3% of reading
Sensitivity / Resolution	DO — .01 ppm below 4.00, .1 ppm above 4.0 SS — 1 mg/l below 1000 mg/l 10 mg/l between 1,000 and 9,999 mg/l 100 mg/l above 10,000 mg/l
Repeatability	DO — .01 ppm SS — +/- 1%
Sensor Drift	DO & SS — Less than 1% per year
Temperature Range	DO & SS — 0 to 60 degrees C pH & ORP — 10 to 100 degrees C
Response Time	95% in less than 60 seconds
Sensor Check	Automatic self diagnostics
Outputs	Up to 8 Opto-isolated 4-20 milliamp (with expansion box) Optically isolated RS-485 Modbus RS-232 serial 4 dry contact 10 amp relay setpoints (with expansion box) 2 clean relays
Memory Backup	Yes
Display	Backlit graphical LCD display with UV protection Contrast adjustment via keypad
Sensor Cable Length	33 feet standard (optional lengths up to 2000 ft)
Ambient Temperature	minus 20 degrees C to 70 degrees C
Ambient Humidity	0 to 100 percent
Enclosure Rating	NEMA 4X
Wetted Materials	Epoxy, polyurethane, glass, and PVC
Maximum Pressure	100psi

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