



The Dual Channel Analyzer (DCA) is a unique system that combines advanced electronics with solid-state, smart sensors. The analyzer will accept any combination of two standard SS sensors and automatically configures for the correct operation. The system allows for flexible and economical process monitoring and control.

#### Standard Outputs:

- Two isolated 4-20 milliamps signals
- Two setpoint relays
- One setpoint or alarm relay
- One cleaning relay
- RS-485 ModBus RTU signal

#### Analyzer Specifications:

- The monitor shall be housed in a fiberglass NEMA 4X enclosure with brackets for wall or standard round handrail mounting.
- It shall have a digital display controlled by microprocessor circuitry.
- All run, programming, and calibration functions shall be accessible without having to open the enclosure.
- Unit shall be pre-calibrated at the factory.
- Provide a minimum of 2 setpoint relay outputs, an alarm relay output and a self-cleaning relay output.
- Provide an extended temperature, UV treated LCD digital display for continuously showing all sensor readouts. Programming and diagnostics are also provided through this display.
- Provide self-diagnostics for the sensors and analyzer. Analyzer shall have error messages in the operating mode for higher or lower than normal sensor output voltage, temperature input outside the 0-60 degree C range, and unstable instrument circuitry; error messages in the calibrate mode for unstable sensor temperature (after a 5-minute wait), unstable output of the sensor (after a 5-minute wait), and weak sensor output level.
- Provide isolated RS-485 MODBUS RTU serial communication port for analyzer status, sensor status, and all outputs.
- Provide two 4-20 MADC isolated output for sensor readings.
- Provide as standard a back-lit LCD display.
- Display suspended solids in mg/l. The accuracy of the SS reading will be 3% of reading. The resolution will be;
  - 1 mg/l if the reading is less than 1000 mg/l,
  - 10 mg/l if the reading is between 1000 mg/l and 10,000 mg/l,
  - 100 mg/l if the reading is over 10,000 mg/l.



The model 15 & 15L Suspended Solids sensors incorporate near infrared technology which provides increased dependability of the reading when color changes in the solids occur. Accurate, real-time solids loading information. The sensor will use a 880 nanometer emitter. The sensor will automatically compensate for temperature variations.

#### Sensors Specifications:

- There are two ranges available.
- Measuring Range: M15 = 250 to 30,000 mg/l and M15L = 0 to 1,500 mg/l
- Accuracy: for M15 = +/- 5% of the reading or +/- 100 mg/l whichever is greater and for M15L = +/- 5% of the reading or +/- 2 mg/l whichever is greater
- Repeatability: +/- 1% of the reading or +/- 2 mg/l whichever is greater
- Response time: 95% in under 60 seconds