

Residual Sulfite Monitoring System

 (Quantity) Residual Sulfite Monitors shall be supplied for continuous measurement of the residual sulfite at the (Specify Location) . The sulfite monitoring system shall consist of an electronic monitor, a chemistry module containing a gas phase sulfite sensor, pumps and associated accessories as listed below. The residual sulfite monitoring system shall be ATI Model A15/66 or equal.

Sulfite Monitor

The Sulfite Monitor shall be a compact ¼ DIN size instrument suitable for panel mounting. For outdoor applications, the monitor shall be supplied in a NEMA 4X enclosure with a clear hinged door to allow tool-less access to controls and for viewing the LCD display. The display shall be alphanumeric LCD and capable of indicating the residual sulfite in a range up to 20 PPM. The display shall also indicate alarm setpoints with all configuration information programmable through the front keypad. The keypad shall be protected with a software lock and all configuration programming to be protected by an access code.

The monitor shall provide two independently programmed alarm/control relays selectable over the entire range of the instrument as either low or high alarm. In addition, both relays shall be programmable for variable dead and variable time delay. A third and fourth independent relay shall be provided for the purpose of automatic cleaning of the chemistry module sample and chemical line.

An isolated 4-20 mA analog signal driving up to a 600 ohm load shall be provided and capable of being programmed throughout the entire range of the instrument.

Chemistry Module

The chemistry module shall be housed in a separate NEMA 4X enclosure with hinged door and contain a special SO₂ gas phase sensor with acrylic sample chamber, a sample pump, an acid pump, an air spurge pump with acrylic air stripping chamber and precision flow control rotometer.

The chemistry module shall be designed to receive the sample intended to be measured and then precisely mix with a diluted acid for the purpose of pH reduction. The mixed sample is then air stripped of the sulfur dioxide and measured by a special high humidity gas phase sulfur dioxide sensor.

A 3-way sample line hand valve shall be provided for the purpose of bypassing the process sample and providing the system with a zeroing sample.
