

## Model 6020 SO<sub>2</sub> Analyzer

### Overview

The Model 6020 SO<sub>2</sub> Analyzer provides an accurate and convenient means of measuring low levels of Sulfur Dioxide in ambient air.

The Model 6020 measures sulfur dioxide by detecting the fluorescence of SO<sub>2</sub> when exposed to ultraviolet (UV) radiation at wavelengths near 214 nm. The SO<sub>2</sub> molecule fluoresces (reradiates) at longer wavelengths of approximately 360 nm, which is detected and measured by a photomultiplier tube (PMT). Narrow band optical filters are used to separate the 215 nm excitation light from the 360 nm fluorescing light. The Model 6020 consists of a sample inlet, hydrocarbon scrubber (kicker), optics, UV lamp, reaction chamber, PMT, UV detector, and associated electronics.

Advanced, easy to use, menu-driven software allows access to sample conditions and diagnostics and the strip chart feature allows the user to view a time series plot for ozone readings.

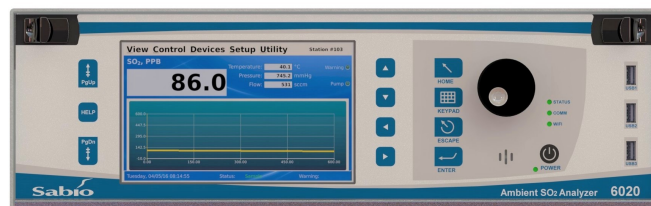
The 6030 Analyzer offers a bright color display, data logging capability and advanced communications via Ethernet, USB and RS-232/485

### Standard Features

- ▶ Operating ranges: 0-50 ppb to 20 ppm user selectable
- ▶ EPA approved ranges: 0-0.5 ppm (0-500 ppb)
- ▶ Large color TFT LCD display
- ▶ Touch screen, front panel keypad, external keyboard and mouse
- ▶ Menu driven software
- ▶ Ethernet: 10/100 Base-T, TCP/IP, USB and RS-232/485 ports
- ▶ Front panel USB connections for peripheral devices and firmware updates
- ▶ Four independent analog outputs with flexible ranges
- ▶ 8 digital input/outputs (I/Os)
- ▶ Automatic temperature and pressure compensation
- ▶ Comprehensive internal data logging
- ▶ Internal memory for more than 2 years of data storage
- ▶ Modbus RTU and TCP protocol
- ▶ External Filter (back panel)
- ▶ Calibration by dilution

### Optional Features

- ▶ Internal Zero/Span valves
- ▶ 4 - 20mA current outputs
- ▶ Internal Filter (front panel)
- ▶ Analog and Digital I/O



### SPECIFICATIONS

EPA Approved Ranges	0-500 ppb Max: 0-20 ppm
Noise	< 0.0005 ppm
Lower Detectable Limit	< 0.4 ppb
Zero Drift	< ±.003 ppm per 24
Span Drift	hours < ±1% URL per 24
Cycle Time	hours 1 sample/second
Precision Linearity	< 1% of URL
Sample Flow Rate	0.4 to 0.8 LPM
Operating Temperature	5° to 40° C (EPA Approved Range) 0 to
Operating Humidity	90%, non-condensing
Power Requirements	Universal Power Supply, 90-264 VAC, 100 VA, 50/60 Hz
Voltage Output Ranges	0.1V, 1V, 2V, 5V, 10V, user selectable
Input/Output Ports	0.1V, 1V, 5V, 10V or other, user selectable with over & under range
Physical Dimensions (H x W x D)	5.25 in. x 17 in. x 22.5 in. (133 x 432 x 571.5 mm)
Weight	25 lbs. (10.3 kg)
Measurement Units	ppb, ppm, µg/m <sup>3</sup> , mg/m <sup>3</sup> (selectable)
Certification	US EPA: RFSA-0616-237