

Model 6020 SO₂ Analyzer

Overview

The Model 6020 SO₂ 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 SO₂ when exposed to ultraviolet (UV) radiation at wavelengths near 214 nm. The SO₂ 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

- ▶ Ranges: 0-50 ppb to 0-20 ppm (User selectable)
- ▶ Measurement units: ppm, ppb
- ▶ Large color TFT LCD display
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- ▶ Various user interface options including touch screen, front panel keypad, external keyboard and mouse
- ▶ Menu driven software
- ▶ Ethernet TCP/IP, USB and RS-232/485 ports
- ▶ Front panel USB connections for peripheral devices and firmware updates
- ▶ Four independent analog inputs / outputs VCD with flexible ranges
- ▶ 8 standard digital input/outputs (I/Os)
- ▶ Automatic temperature and pressure compensation
- ▶ Comprehensive internal data logging
- ▶ Modbus protocol

Optional Features

- ▶ Zero/Span ports
- ▶ 4 – 20 mA current outputs



SPECIFICATIONS

EPA Approved Range	0-500 ppb
Noise	< 0.2 ppb
Lower Detectable Limit	< 0.4 ppb
Zero Drift	< 0.5 ppb per 24 hours
Span Drift	< 0.5% of reading/24 hr
Cycle Time	sample/second
Precision Linearity	< 1% of full scale
Sample Flow Rate	0.4 to 0.8 LPM
Operating Temperature	5° to 40° C (EPA Approved Range)
Operating Humidity	0 to 90%, non-condensing
Power Requirements	Universal Power Supply, 90-264 VAC, 100 VA, 50/60 Hz 200 watts
Voltage Output Ranges	0.1V, 1V, 2V, 5V, 10V, user 90-264 VAC, 100 VA, 50/60 Hz (User selectable)
Input/Output Ports	Rear Panel: Ethernet, USB Device, USB Host (2), RS-232/485 (2)
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)
Certification	US EPA: RFSA-0616-237