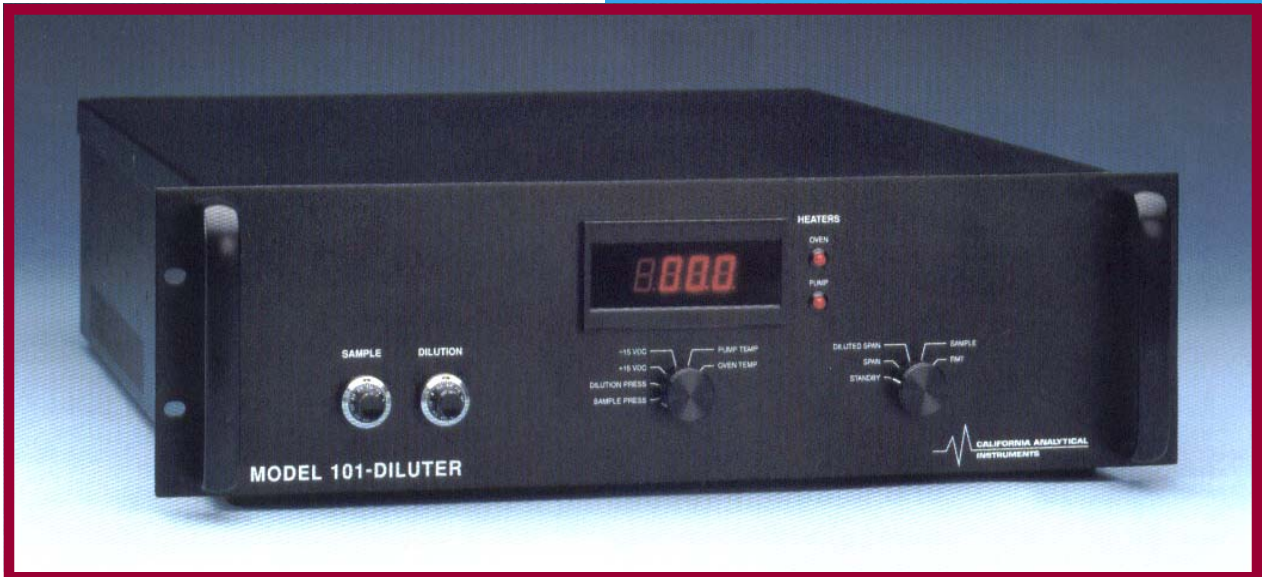


101

SERIES

HEATED DILUTER



APPLICATIONS

- Stack Gases (CEM)
- Combustion Efficiency
- Turbine/Generator Feedback Control
- Process Chemical Gas Analysis
- Personnel Safety
- Fuel Cell Analysis
- Vehicle Emissions

FEATURES

- Internally Adjustable Oven Temperature from 60 to 195° C
- Internal Heated Filter with External Access
- Complete Digital Presentation Including Sample/Air Pressure
- Electronic Proportional Controllers for Sample and Dilution Air
- Multiple Dilution Capability
- Digital Diagnostics
- Remote Operation Capability



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MODEL 101

HEATED SAMPLE DILUTER

DESCRIPTION

The CAI Model 101 Heated Sample Diluter is designed to precisely dilute samples of high concentrations of analytes and/or humidity. The Diluter has an internal heated sample pump and temperature adjustable oven. All components in contact with the sample are maintained at the set oven temperature preventing condensation. Dry air is mixed with the sample to the required dilution ratio insuring no condensate will be introduced into the analyzer.

METHOD OF OPERATION

The CAI Model 101 Heated Sample Diluter has internal electronic flow controllers for the precise regulation of sample and diluting air. The diluting air is provided by either a CAI Model ZAG-6L zero air generator or a source of dry air or Nitrogen. Precise sample and dry air flow rates are maintained with the use of electronic pressure controlling valves with appropriate restrictors. The required dilution is factory set. If any minor adjustments are required, they can be made from the front panel sample and diluter controls. By setting the selector switch, the analyzer may be span calibrated, zero checked and dilute span verified. The sample is drawn by an internal heated pump. Sample and dry diluent air are mixed in a mixing chamber metering the required sample to the analyzer and bypassing the excess. The oven temperature is adjusted from 60 to 195°C, and nominally set at 185°C.

SPECIFICATIONS

Span & Diluent Requirements: 30 to 40 PSIG

Dilution Range: 0-10

Temperature: 185°C (Factory Set, Adjustable from 60-195°C)

Repeatability: +/- 0.1%

Linearity: +/- 0.1%

Sample Flow Rate: 2 LPM

Internal Sample Filter: 0.1 Micron, Field Replaceable

Sample & Diluent: Electronic Proportional Pressure Control

Display: 3 1/2" Digit Panel Meter

Diagnostics: 6 Position Switch, Sample Pressure, +V, -15 V, Pump Temperature, Oven Temperature

Analog Output: 0-10 VDC, 4-20 mA DC and 0-20 mA DC

Ambient Temperature: 5-45°C

Warm-Up Time: 1 Hour

Fittings: 1/4"

Power Requirements: 115/230 (+/-10%) VAC @ 50/60 Hz, 750 Watts

Relative Humidity: Less than 90% RH

Dimensions: 5 1/4" H x 19" W x 23" D

Weight: 50 lbs



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