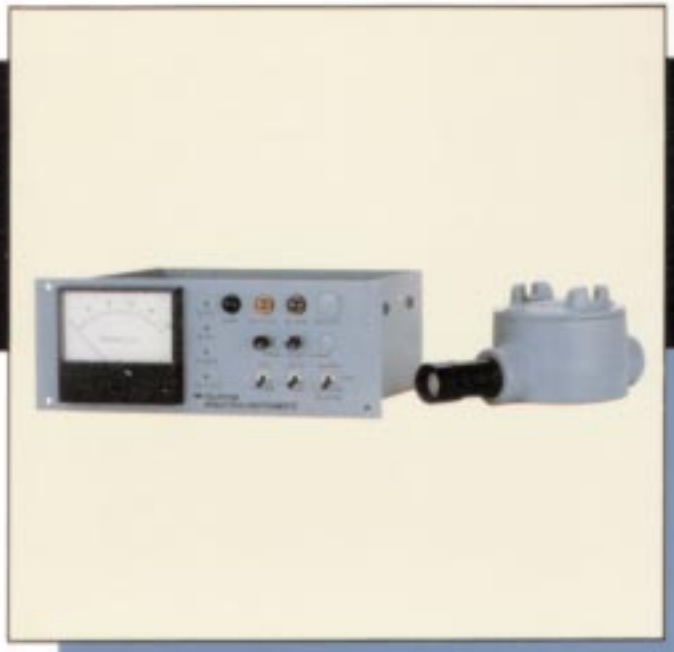
Model 102

Combustible Gas Analyzer



Applications

The TAI Model 102 Combustible Gas Analyzer is suitable for safety monitoring of hydrocarbons, for monitoring controlled atmospheres and process streams. The flexible configuration of control unit and probe provide for convenient use in laboratory, factory, refinery, gas storage, and many other industrial applications.

For flue gas and other applications where low oxygen concentrations exist, oxygen must be added to the sample. Other models are available having air dilution systems for this purpose.

Description

The TAI Combustible Gas Analyzer is a single range instrument which utilizes the latest in catalytic sensor and integrated circuit technology to provide an instrument of exceptional stability for measurement of combustible gases and vapors. Standard ranges for Methane in air are 100 percent LEL or 5 percent volumetric concentration.

The control unit containing all power supplies and electronics is housed in a case suitable for rack mounting. Two control units may be mounted in a standard 19 inch instrument rack. The sensor illustrated is contained in an aluminum explosion proof junction box.

The instrument is immune to power line variations usually found in industrial environments. Key electronic components are socket mounted for ease of maintenence. DC power supplies are provided with internal thermal and current overload protection. Analog output signals have one side grounded for ease of interfacing with other electronic devices.

Electronic zero, sensitivity and alarm set points are readily adjustable from the front panel, yet are protected from inadvertent change. Signal level is indicated by panel lights and a meter. Individual reset switches are provided for each alarm. Switches are provided for selection of latching or non-latching operation of the alarms and operation of the integral audible alarm.

The basic Model 102 includes one adjustable set point alarm with integral bridge failure alarm circuitry. An additional adjustable set point alarm and an independent power and bridge failure alarm can be provided.

A 0-1 volt analog signal output is standard; however, other output voltage ranges less than this can be provided. Current output signals can be provided in addition to the voltage output.

Accessories Available Include

- Flow-thru sensor adapters for calibration and in-line applications.
- Calibration kit containing cylinder of span gas with regulator.
- Case for bench top mounting of control unit.

Features

- Standard range 0-100% Lower Explosive Limit (LEL) of Methane
- Optional range 0-5% Methane equivalent
- Low temperature catalytic bead sensor
- Sensor locatable 1 mile from control unit
- Large, legible meter for local display
- Exceptional electronic stability
- One adjustable set point alarm standard feature
- Optional additional alarms
- Form "C" contact alarm relay outputs
- Integral audible alarm
- Analog voltage output for remote indicator or recorder
- Optional current outputs
- Rack mountable
- Optional case for bench top use

Specifications *

Ranges:
Standard: 0-100% LEL (Methane)
Optional: 0-5% Methane Equivalent

Accuracy:
Meter: ±1% full scale
Recorder Output: ±½% full scale

Operating Temperature:
32-125° F

Response Time:
90% full scale in less than 20 seconds

Signal Output:
Standard: 0-1 VDC full scale
Optional: 1-5, 4-20 or 10-50 milliamperes Current

Power:
Standard: 115 volt/50-60 Hz.
Optional: 230 volt/50-60 Hz.

Size:
3.5" high x 9.5" x 7" deep

Alarm Relays:
SPDT contacts rated at 3 A/120 VAC

* Specifications subject to change without notice

In addition to the Model 102 Combustible Gas Analyzer, Teledyne Analytical Instruments also manufactures thermal conductivity analyzers, near infrared analyzers, flame ionization analyzers, ultraviolet analyzers and the industry's most complete and comprehensive line of oxygen analyzers.

TELEDYNE ANALYTICAL INSTRUMENTS

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