Teledyne's Model 4030 is a microprocessor based, heated total hydrocarbon gas analyzer designed for high accuracy, sensitivity and stability. This instrument is designed to continuously measure a variety of hydrocarbon concentrations from one point.

The 4030 uses a flame ionization detector (FID). The FID, sample filter, sample lines, solenoid valves, pump head, capillaries and all other components in contact with the sample are maintained in a temperature controlled heated oven. This prevents condensation and provides repeatable, reliable performance in the analysis of a wide variety of concentrations of hydrocarbons in gaseous mixtures or ambient air.

**Applications**

**Compliance monitoring** – U.S. E.P.A. Method 25A

**Process monitoring** – Continuous monitoring and alarm or control of process gas streams utilizing organic solvents, crude oil, and other chemicals containing hydrocarbons

**Efficiency monitoring** – Monitoring effluent of volatile organic compounds (VOC) reduction equipment for environmental compliance. Efficiency control of incinerators (thermal or catalytic), scrubbers, carbon adsorbers, and other abatement equipment. Monitoring of catalytic converters, combustion and diesel engine efficiency.

**Safety monitoring** – Lower explosive limit (LEL) monitoring and / or control of ovens and dryers, fugitive emissions monitoring, personnel work area monitoring, leak detection of process equipment or solvent storage areas.

**Features**

- Easy to use software
- Automatic ranging
- Automatic fuel shut off system
- Automatic flame-out indicator
- Adjustable alarm and oven settings
- Precision 1% of full scale
- Fast response
- Two stage sample filter with exchangeable stainless steel elements
- Teflon isolated detector (FID)
- 19” rack / bench mount
- Heated sample pump head
- Automatic ignition
- Choice of Hydrogen or Hydrogen / Helium fuel

**Options**

- Automatic calibration
- Zero and calibration solenoids with software
- RS-232 interface
- Second concentration level alarm
- Internal combustion air supply
- Purge and internal cleaning system
- Dilution system
- User selectable fuel
- Range recognition relays
- Multi-point sequencer

**Built for Reliability and Performance**
Related Available Equipment
• Zero air generator – reduces bottles
• Hydrogen generator – reduces bottles
• Heated sample lines and controllers
• Strip chart recorders and data loggers

Specifications
Measuring method: Oven heated, Flame Ionization Detector
Measurement range: Standard ranges (4 ranges per amplifier, one choice per analyzer) + Auto Range
• 0-10, 0-100, 0-1000, 0-10,000 ppm (lower detection limit 0.01 ppm)
• 0-100, 0-1000, 0-10,000, 0-100,000 ppm (lower detection limit 0.1 ppm)
Other ranges available upon request
Zero & span noise: Less than 0.2% of full scale
Zero & span drift: ± 1% full scale per 24 hours
Linearity: Within 1% of full scale through all ranges
Repeatability: Within 1% of full scale through all ranges
Stability: Within 1% of full scale through all ranges
Oxygen synergism: Within 1% of full scale within selected range
Response time: Within 5 seconds to 90% of final reading
Ambient temperature: 50 to 120º F
Flow rate: 4 liters / minute (standard), others available
Physical dimensions:
19” front panel, 16.75” wide chassis, 18” deep chassis,
21” deep with fittings and handles, 9” high
Weight: 35 to 45 lbs depending on options
Oven operating temperature: 300º F (adjustable 200 - 400º F)
Safety
• Flame-out indicator lamp, flame out alarm contact on back panel, fuel shut-off, calibration and zero solenoid shut-off
• Optional sample shut-off
Outputs
One of the following voltage outputs:
• 0-10 VDC (Standard)
• 0-1 VDC (Optional – no extra charge)
• 0-5 VDC (Optional – no extra charge)
Current output:
• 4-20 mA

Operation Requirements
Fuel:
• UHP Hydrogen @ 18 psi incoming pressure (standard)
• UPH Hydrogen / Helium Mixture @ 18 psi incoming pressure (optional)
Combustion air:
• Oil / Water / Hydrocarbon free instrument air @ 10 psi incoming pressure
Zero calibration gas:
• Zero grade air or nitrogen @ 9 psi incoming pressure
Span calibration gas:
• Known concentration of operator selected hydrocarbons balanced in either air or nitrogen @ 9 psi incoming pressure
Optional gasses:
• UHP nitrogen for units with dilution option @ 10 psi incoming pressure
• Oil / Water / Hydrocarbon free instrument air for internal cleaning option @ 50 psi incoming pressure
Power requirements:
115 VAC @ 60Hz @ 600 Watts or optional 220 VAC @ 50 Hz @ 600 Watts

Warranty
Instrument is warranted for 1 year against defects in material or workmanship
NOTE: Specifications and features will vary with application. The above are established and validated during design, but are not to be construed as test criteria for every product. All specifications and features are subject to change without notice.

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