

ta3000F FID Gas Analyzer

Specifications

Model designation and detection limit specifications

Every ta3000F includes: an on-board electronic pressure regulator, multipoint rotary valve, proven chromatography, and Flame Ionization Detector (FID). Lower detection limits may vary depending on application. Contact AMETEK for information about your specific application. Not all models and applications are listed below.

Applications	Lower Detection Limit	Analysis Time
Bulk Gas: Inerts	10ppb CO ₂ ; 10ppb CH ₄ ; 25ppb NMHC	10 minutes
Bulk Gas: Oxygen, Inerts, or Air	10ppb CO ₂ ; 10ppb CH ₄ ; 25ppb NMHC	10 minutes
Bulk Gas: Hydrogen	10ppb CO ₂ ; 10ppb CH ₄ ; 25ppb NMHC	10 minutes
Water Headspace	CH ₄ , C ₂ H ₂ , C ₂ H ₄ , C ₂ H ₆ , CO ₂ : Range 0.25 to 200 ppm	4 minutes
Air Sampling	CH ₄ , NMHC: Range 0.25 to 200 ppm	5 minutes

Performance

Precision	±1 x LDL or ± 2% of reading, which ever is greater
Accuracy	±1 x LDL or ± 2% of reading, which ever is greater
Range	0 to 5 ppm (Higher is available as an option)
Response Time	2 to 10 minutes to 99% response (varies with application) Response time is independent of sample concentration.
Ambient Operating Temperature	50° to 90°F (16° to 32°C)
Sample Compatibility	Specific models available for various applications
Resolution, Display	0.1 ppb
Resolution, Communication Ports	0.01 ppb

Carrier Gas Supplies (On-Line Installation)

Inlet Pressure Range	70 to 90 psig (4.8 to 6.1 bar)
Inlet Pressure Stability	± 2%, regulator required
Return Pressure	Atmospheric vent is optimal, ± 0.5 psig maximum
Flow Consumption	50 cc/min minimum, bypass at 50 cc/min
Temperature	60° to 100°F (16° to 38°C), optimum when maintained ± 2°C
Maximum Impurity Levels	Varies by application, inlet purifier may be required

Support Gases

Carrier Gas	Nitrogen (typical)
Carrier Gas Purity	99.995% (external purifier may be required)
FID Air Purity	< 1ppm hydrocarbons, dewpoint < -40°C
FID Hydrogen Fuel Purity	Hydrocarbons, CO, CO ₂ < 1ppm

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Gas Ports

Sample Inlet	1/16-inch VICI compression
Carrier	1/16-inch VICI compression
FID H ₂	1/16-inch VICI compression
FID Air	1/16-inch VICI compression
Sample Vent	1/16-inch VICI compression
Aux	1/16-inch VICI compression
FID Shut-Off	1/8-inch VICI compression

Sample Gas

Inlet Fitting	1/16-inch VICI compression fitting
Flow Rate	20 - 100 sccm minimum
Inlet Pressure Stability	± 2%, UHP regulator required
Vent Pressure	Atmospheric pressure vent is optimal, ± 0.5 psig maximum

Calibration Gas

Inlet Fitting	1/16-inch VICI compression fitting
Cylinder Concentration	Depends on application
Blender Recommended	AMETEK Trace Analytical MGB1000 Micro Gas Blender

Chassis

Dimensions	7" H x 16.8" W x 26.5" D (18 cm x 43 cm x 67)
Weight	35 lb. (15.9 kg)
Power	100 - 120 VAC, 50/60 Hz; 200 - 240 VAC, 50/60 Hz

One of a family of innovative process analyzer solutions from AMETEK Process Instruments. Specifications subject to change without notice.

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