Model 2030 10 Hz

MultiGas™ FTIR Gas Analyzer

The Model 2030 10 Hz MultiGas™ FTIR Gas Analyzer's fast response time with low flow rate, very low detection limits, and wide analytical range make it the choice for vehicle emissions monitoring systems. Leveraging MKS' industry proven 2030 FTIR platform, the 10 Hz model has scanning capability at 0.5cm^{-1} resolution, providing exceptional detail of transient emissions.

The gas sample is introduced hot and wet, directly into the MultiGas™ Analyzer, with no need for chillers. The stainless-steel design, with a corrosion resistant Dursan™ coating, provides the lowest residence time for "sticky" gases. It is available with a broadband detector, capable of measuring a minimum of 20 component emissions, and requires liquid N_2. Available in 1065 Ready (200 cc gas cell volume) and 1065 Ready LV (70 cc gas cell volume) versions. The 10 Hz model supports light duty (LD) and heavy duty (HD) vehicles and engines as well as catalyst manufacturers. Its rugged design makes it an ideal choice for engine or vehicle test labs, test cell, and on-board, portable emissions monitoring.

Product Features

- Available in standard and LV gas cell versions
- Stainless steel gas cell with corrosion resistant Dursan™ coating and 3/8'' welded inlet/outlet
- 70 cc or 200 cc gas cell volume for the 1065-Ready
- Connectivity through AK Protocol or Modbus
- Compatible with all MKS Engines and Vehicles recipe packages

Key Benefits

- High resolution reduces interferences from water and CO_2, providing unbiased, accurate readings
- 10 Hz sampling rate for flows from 0.5 LPM up to 100 LPM provide fast, transient monitoring
- Measures 20+ gas components simultaneously, depending on the model, reducing the need for separate bench analyzers

Specifications

Analyzer	1065-Ready 10 Hz	1065-Ready LV 10 Hz
Measurement Technique	FTIR Spectrometry	
Gases and Vapors Measurable	Most molecules except for Ar, He, N_2, H_2, and O_2	
Analytical Ranges	Dependent upon gas, from ppm to %. Refer to Engine and Vehicle Application Package.	
Measurement Acquisition Rate	5 scans/sec (5 Hz)	
Sampling Acquisition Rate	Up to 10 Hz	
Resolution	0.5cm^{-1} to 16cm^{-1}	
Detector	LN_2–cooled MCT, 500-5000 cm^{-1}	
Purge Pressure	20 psig (1.5 bar) max.	
Spectrometer and Optics Purge Flow	0.4 LPM of dry nitrogen or CO_2 free clean dry air with dewpoints below -70°C	
Pressure Transducer	MKS Baratron® (0-1000 Torr)	
Purge Connection	Swagelok® quick connect	
Sample Gas Inlet/Outlet Connection	Swagelok 3/8'' male connector	
Minimum Desktop Specifications Operating System Processor RAM	• Windows 10 Professional 64-bit, Windows 7 professional 64 bit • 6th generation Intel i5-6400 or better. Processors ending with a 'T' are not suitable. •8 GB or more	
Minimum Laptop Specifications Operating System Processor RAM	• Windows 10 Professional 64-bit, Windows 7 professional 64 bit • 6th generation Intel i5-6300HQ or better. Processors ending with a 'U' are not suitable. •8 GB or more	
Communications	RJ-45 cross-over Ethernet	
Output Options	AK, Modbus	
Dimensions	17.5''W x 12.5''H x 25.5''D	
Installation	19'' rack mount chassis	
Power	120 VAC/3 Amps or 240 VAC/1.5 Amps	
Weight	110 lbs. (50 kg)	
Laser Safety	Class 1 laser product contains a Class 3R laser with continuous wave output at 633 nm	

Sampling Parameters	1065-Ready 10 Hz	1065-Ready LV 10 Hz
Sample Temperature	191°C or 113°C	
Sample Flow	0.5 - 100 L/min	0.2 LPM to 25 LPM
Sample Pressure	0.0 – 1.3 atm (calibration pressure dependent); 0.95 - 1.05 atm (recommended)	
Gas Cell		
Pathlength and Volume	5.11m, 200 cc	5.11m, 70 cc
Construction	316 stainless steel, Dursan coating	
Fittings	3/8'' Swagelok male connector	
Tubing	Heated 3/8'' stainless steel	
Mirrors	Nickel plated aluminum substrate, with rugged gold coating with MgF_2 coating	Nickel plated aluminum substrate, with rugged gold coating
Windows	ZnSe (other window material available)	
O-rings	Kalrez® (others available)	

Ordering Information

Please contact your local MKS office for price and availability information.

www.MKS.com

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