



CEREX SHEPHERD FTIR Analyzer

The CEREX SHEPHERD FTIR was engineered out of a demand for a flexible, cost-effective yet highly sensitive, accurate analyzer. Industry-leading FTIR analyzer offers 385 compounds for targeting with ultra low parts per billion detection limits in an easy to operate, portable package. Known for its safe, reliable, continuous real-time monitoring of toxic and hazardous gases without common regulatory compliance issues, costly maintenance or environmental interference due to it's innovative construction.

General Specifications

Analyzer	Portable multi-gas point analyzers						
Measuring Technology	Ultra Violet Differential Optical Absorption Spectroscopy (UV-DOAS)						
Measuring Principle	Beer-Lambert Law						
Measuring Technique	Classical Least Squares (CLS) regression analysis; optional Partial Least Squares (PLS)						
Multi-gas Capability	Standard configuration is up to 5 compounds; capable of simultaneous analysis of up to 50 compounds						
Response Time	T90, Typically < 120s, depending on the gas flow and measurement time						
Minimum Detection Limit	Gas-specific, typical parts per billion						
Enclosure Specs	<table border="0"> <tr> <td>Dimensions</td> <td>42.1" x 21.9" x 23.3" (107cm x 55.7cm x 59.1cm)</td> </tr> <tr> <td>Weight</td> <td>85 lbs (38.6Kg)</td> </tr> <tr> <td>Material</td> <td></td> </tr> </table>	Dimensions	42.1" x 21.9" x 23.3" (107cm x 55.7cm x 59.1cm)	Weight	85 lbs (38.6Kg)	Material	
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Applications	Chemical Warfare Agent Detection, Refinery Fenceline Monitoring, Brownfield Remediation, Chemical Manufacturing AQ, Chemical Depot Monitoring, Fertilizer Manufacturing AQ, Container Inspection, Leak Detection, Ambient Air Quality, Indoor Air Quality, HAZMAT Response, Border Patrol Inspection, Manufactured Gas Plant Remediation (MGP), Perimeter Ambient Monitoring System (PAMS), Superfund Site Remediation, Tank Farm Monitoring						

System Specifications

Power Supply	100-115 or 230V, 50-60Hz																
Power Connection	Environmentally sealed circular Amphenol bayonet connector.																
Power Consumption	Average 120W; 300W max																
Real Time Analysis Software	Cerex Monitoring Software (CMS) Windows® 10, 11 Operating System																
Data Connection	USB, Ethernet, Bluetooth, WiFi Access Point and WiFi Station. Remote operable.																
Digital Interface	MODBUS, VNC, and remote desktop. Spectral data may be stored locally, on a NAS, or disabled. Industrial external wireless option available. USB-C for data retrieval and peripheral accessories. Cellular capable for full remote access and control from any PC, anywhere.																
Sample Intake Rate	15 CFM																
Sample Pump	3 meters, with quick connect fitting																
Sample Gas Filtration	0.3 Micron																
Gas Fittings	<table border="0"> <tr> <td>Gas Inlet</td> <td>1/2" Quick Coupling;</td> <td>1/4" Swagelok test adaptor provided</td> </tr> <tr> <td>Gas Outlet</td> <td>Case Vent</td> <td>3/8" OD push-to-connect tube adaptor provided</td> </tr> </table>	Gas Inlet	1/2" Quick Coupling;	1/4" Swagelok test adaptor provided	Gas Outlet	Case Vent	3/8" OD push-to-connect tube adaptor provided										
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Sample Cell	Internally sealed sample cell, 20 meter path length																
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Operating Conditions

Run time	4 Hour Battery, Continuous AC
Temperature	Short term 0°C to 40°C, long term 5°C to 30°C, non-condensing
Humidity	
Rain	Direct exposure rated
Dust / Sand	Direct exposure rated
	General purpose atmospheres - not rated for HAZLOC zones
Storage Conditions	Temperature -20C° to 60C° non-condensing Humidity
Instrument Cooling	Air cooled (optional thermoelectric air conditioner)
Sample gas pressure	Ambient
Sample gas flow rate	80 LPM

Maintenance

Bulb Life	4000 Hour Manufacturer Warranty
Internal Battery Life	3.5 Hours, optionally to 14.5 hours
Spectrometer	20,000 Hours

Options

Alarms	User configurable concentration and TLV average
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Measuring Parameters

Zero point calibration	24 hours typical, N2, Zero-Air or Natural
Zero point drift	< 2% of measuring range per zero point calibration interval
Sensitivity drift	None
Linearity deviation	< 2% of measuring range
Temperature drift	< 2% of measuring range per 10K temperature change
Pressure influence	< 1% change of measuring value for 1% sample pressure change Ambient pressure changes measured and compensated