



Enhanced Resolution Infrared Detection System for GC

System Overview

Operating Principle	Direct deposition of column eluent on cryogenically-cooled ZnSe sample disc
Detection Method	Built-in FTIR
IR Detector	0.1 x 0.1 mm MCT
IR Range	4000–700 Wavenumbers
Resolution	4 or 8 cm ⁻¹
Data Collection	Real-time, with post-run rescan
Spectrum Type	Transmittance through disc and solid-phase sample
Disc Capacity	About 50 hours of chromatography
Disc Temperature Control	-100 to –30°C; ambient to 100°C
Unattended operation	12 hours; Autosampler-compatible

Data Station

Platform	Standard Desktop computer w/ Microsoft Windows™
Spectroscopy Package	Thermo Galactic GRAMS/32 AITM
Standard Features	<ul style="list-style-type: none"> • Real-time and post-run data collect • Chromatographic / spectral workup • Band chromatograms for chemical classes • Ratio chromatograms for profiling trends • Alignment and tuning tools
Library Search	Library with 4,000 spectra of controlled substances

DiscoverIR-GC Configuration

GC Flow Rates Accepted	0.1 to 5 ml/min
GC Temperatures	Programmed up to 420°C
Sensitivity	Picogram range (e.g. <200 pg of dodecane)
Chromatograph	Compatible with any GC system (user supplied)