



MOBILE GC-MS WITH AIR SAMPLING

FLIR GRIFFIN™ G460



The FLIR Griffin G460 GC-MS (Gas Chromatograph Mass Spectrometer) provides chemical identification and is built to operate in mobile labs, reconnaissance vehicles, deployable lab containers, and other portable platforms. It is equipped with a rugged, internal shock isolation system that is tested to rigorous MIL-STD-810G standards. The Griffin G460 contains the same standard injection port commonly found on lab-based GC-MS systems and accepts sample injections via PSI-Probe™, syringe, SPME fiber, headspace, and autosampler. It also includes an additional integrated universal sampling port, providing direct air sampling capability, while also accepting plug-and-play samplers like the Griffin X-Sorber and Purge and Trap. The Griffin G460 accurately detects and identifies explosives, drugs, CWAs, TICs, environmental pollutants, and other chemicals. The simplified user interface gives field-operators and scientists quick and accurate answers. The Griffin G460 helps preserve sample integrity, eliminate the expense of shipping unwanted samples, and lead to real-time, actionable countermeasures that protect public safety.

www.flir.com/G460



MISSION-SPECIFIC SAMPLING

Two integrated sampling ports provide flexible options for introducing liquid, solid, and vapor samples

- Same split/splitless injector found on typical lab-based GC-MS systems accepts PSI-Probe™, direct syringe, autosampler, SPME, and headspace injections
- Built-in air sampling module provides 24/7 continuous air monitoring capability while providing a docking station for portable plug-and-play water and vapor samplers
- Versatile, quick-connect sampling tools extend the mission to remote locations and eliminate sample prep at the site of action
- Low cost-per-sample



VEHICLE-MOUNTABLE PLATFORM

Rugged design provides lab-quality, on-site chemical identification for real-time intelligence

- MIL-STD-810G compliant for shock, vibration, temperature, and humidity
- Compact design includes integrated pump and shock mount system that minimize footprint on mobile platform
- Optional vehicle mounting kit simplifies installation for operation in a moving vehicle
- Multiple power and carrier gas options based on the mission
- Lab-quality chemical identification provides real-time information at the site of action



INTUITIVE USER CONTROLS AND RESULTS

Easy-to-use graphical user interface expedites decision-making for field operators and scientists

- Easy-to-use wizard tool helps expand operator base by expertly guiding user in selecting the most appropriate predetermined method and library for rapid sample identification
- Results are presented in a simple color-coded, go/no-go alarm format that eliminate data interpretation in the field
- Expert users have access to detailed chromatographic and mass spectral data, as well as the ability to create mission-specific methods and libraries
- Pre-loaded methods and mission-specific libraries produce chemical identification in five to fifteen minutes for most targets of interest

SPECIFICATIONS

Griffin G460

| | |
|------------------------|---|
| Technology | GC/MS; fully integrated low thermal mass gas chromatograph (LTM-GC) and MS/MS-capable ion trap mass analyzer |
| Mass Range / Scan Rate | 35-425 m/z; up to 10,000 m/z per second @ 20 points per m/z |
| Ionization Type | Internal electron ionization (EI) |
| Detector | Conversion dynode electron multiplier |
| LTM-GC Column | Standard VB-5MS (15M x .18mm x .18µm); others available; programmable 40 to 300 °C |
| Calibrant | On-board FC-43 (Perfluorotributylamine) |
| Carrier Gas | Connection for external gas source (choice of He or H ₂); gas available from many vendors; H ₂ generator available |

Sampling & Analysis

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|---------------------|---|
| Sample Introduction | <p>Split/splitless injector accepts:</p> <ul style="list-style-type: none"> - Direct syringe injection (1 syringe included) - SPME fiber (optional) - Manual headspace sampler (optional) - Autosampler (optional) - PSI-Probe™ thermal separation via TAG™ (optional) - PSI-Probe thermal separation via GERSTEL-Twister® (optional) <p>Universal Sampling Port with standard Tenax TA and Carboxen 1017 dual bed preconcentration tubes accepts:</p> <ul style="list-style-type: none"> - Direct air intake onto precon tubes (adaptor included) - Griffin Purge and Trap for water analysis (optional) - Griffin X-Sorber handheld vapor sampler (optional) |
| Sample Phase | Solid, liquid, and vapor |
| Threats | Detects and identifies explosives, narcotics, CWAs, TICs, environmental pollutants, and other chemicals |
| Sampling & Analysis | Full identification in 5-15 minutes for most chemicals |

System Interface

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|---------------------------|--|
| Display & Alerts | Full automation by connection with computer |
| Communication | Ethernet connection TCP/IP; remote operation and diagnostics |
| Data Storage | Data automatically stored on supplied laptop (500 gb) |
| Simplified User Interface | Griffin System Software (GSS); GriffinLib, NIST, and AMDIS mass spectral libraries included; capable of user-defined library |
| Training Requirements | 1-2 days depending on level of training desired; Operator, Developer, and Full System certifications available |

Specifications are subject to change without notice.
For the most up-to-date specs, go to www.flir.com

Power

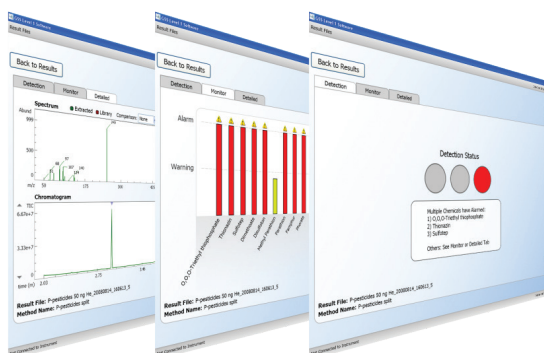
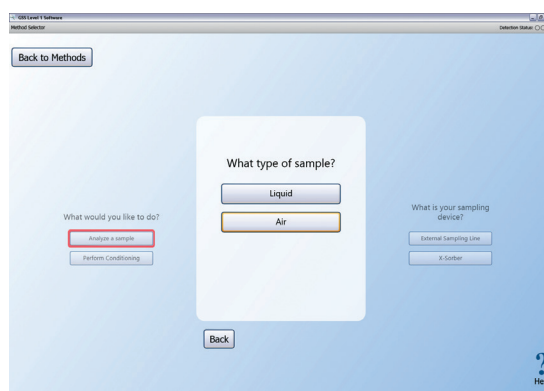
| | |
|-----------------|--|
| Input Voltage | 100–240 VAC; 24 VDC (+/- 5%, 25 A, 600 W) |
| Cold Start Time | <30 mins (includes automatic tuning/calibration) |

Environmental

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|---------------------------|---|
| Operating Temp / Humidity | 41 to 104 °F (5 to 40 °C); <85% relative humidity |
| Storage Temp | -13 to 131 °F (-25 to 55 °C) |

Physical Features

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|------------------------|--|
| Dimensions (L x W x H) | 19.2 x 19.2 x 21.1 in (48.8 x 48.8 x 53.6 cm) |
| Weight | 98 lbs (44.5 kg) |
| Enclosure & Protection | Rugged, internal shock mounting system; integrated vacuum system contains mini turbomolecular pump and quad diaphragm; no external shock table or vacuum system required |



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