



MOBILE GC-MS

FLIR GRIFFIN™ G410



The FLIR Griffin G400-Series GC-MS (Gas Chromatograph Mass Spectrometer) systems provide chemical identification and are built to operate in mobile labs, reconnaissance vehicles, deployable lab containers, and other portable platforms. They are equipped with a rugged, internal shock isolation system that is tested to rigorous MIL-STD-810G standards. Hassle-free, interchangeable sampling tools differentiate each GC-MS model. The Griffin G410, like the other G400-series products, contains the same standard injection port commonly found on laboratory-based GC-MS systems. It accepts revolutionary sample introduction tools like the PSI-Probe™, without sacrificing the ability to perform more traditional techniques like syringe, SPME fiber, headspace, and autosampler injections. Griffin GC-MS systems accurately detect and identify explosives, drugs, CWAs, TICs, environmental pollutants, and other chemicals. The simplified user interface gives field operators and scientists quick and accurate answers. The Griffin G400-series products preserve sample integrity, eliminate the expense of shipping unwanted samples, and lead to real-time, actionable countermeasures that protect public safety.

www.flir.com/G410



INTEGRATED SYRINGE INJECTOR

Mission-specific sampling via same split/splitless injector found on typical lab-based GC-MS systems

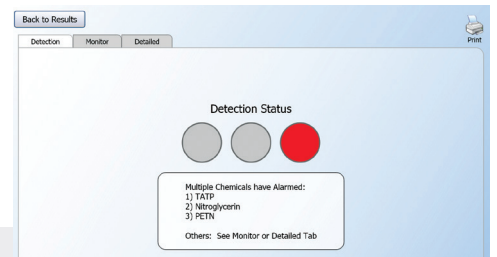
- Offers versatile, quick-connect sampling tools for introducing liquid, solid, and vapor samples
- Accepts native liquid & solid samples via SPME and PSI-Probe™ sampling tools; no sample prep is required, expediting field-analysis
- Accepts prepared organic liquid samples via traditional direct syringe and autosampler injection techniques
- Vapor headspace samples can also be introduced via manual headspace
- Low cost-per-sample



BUILT FOR MOBILE PLATFORMS

Rugged, compact design minimizes footprint on mobile platforms

- Built-in pump and shock isolation system allows GC-MS to operate in a moving vehicle
- Multiple power and carrier gas options based on the mission
- Optional vehicle mount kit simplifies installation for on-the-go missions



SIMPLE, ACCURATE CHEMICAL IDENTIFICATION

Intuitive graphical user interface expedites decision-making for field operators and scientists

- Easy-to-use wizard tool expands operator base with guided operation
- Simple color-coded, go/no-go alarms eliminate data interpretation
- Access to detailed chromatographic and mass spectral data
- Ability to create mission-specific methods and libraries
- Gold-standard identification with MS/MS confirmation

SPECIFICATIONS

Griffin G410

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-35MS (15M x .25mm x .25µm); others available; programmable 40 to 300 °C
Calibrant	Onboard 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

Sample Introduction	Split/splitless injector accepts: <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)
Sample Phase	Solid and liquid
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

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

Power

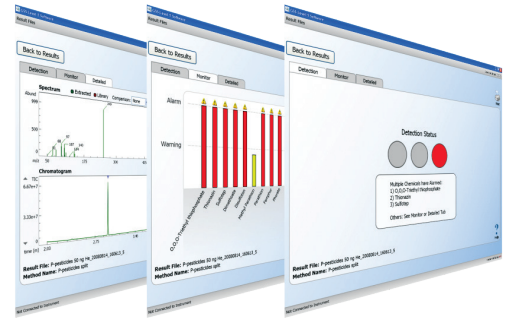
Input Voltage	100–240 VAC; 24 VDC (+/- 5%, 25 A, 600 W)
Cold Start Time	<30 mins (includes automatic tuning/calibration)

Environmental

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

Dimensions (L x W x H)	19.7 x 20.3 x 17.8 in (50.0 x 51.6 x 45.2 cm)
Weight	80.5 lbs (36.5 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



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

HEADQUARTERS
FLIR Systems, Inc.
27700 SW Parkway Ave.
Wilsonville, OR 97070
USA

DETECTION SALES, AMERICAS
FLIR Systems, Inc.
1201 S. Joyce Street
Suite C006
Arlington, VA 22202
USA
PH: +1-877-692-2120

DETECTION SALES, APAC
FLIR Detection, Inc.
10 Kallang Avenue #09-10
Aperia Tower 2
Singapore 335910
PH: +65-6822-1596

DETECTION SALES, EMEA
FLIR Detection, Inc.
Luxemburgstraat 2
2321 Meer
Belgium
PH: +32 (0) 3665 5106

detection@flir.com

www.flir.com
NASDAQ: FLIR

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