DATA SHEET

blacklinesafety



PLUG-AND-PLAY G7 CARTRIDGES

G7 is completely customizable with an exclusive modular design to accommodate diverse gas detection and safety monitoring needs.



Standard Cartridge (lone worker)

G7 devices equipped with a standard (no-gas) cartridge function as personal safety and lone worker monitoring devices. G7's with a standard cartridge monitor the safety of workers and alert live monitoring personnel in the event of an emergency, fall or health event.



Single-gas diffusion Cartridge

Single-gas cartridges provide targeted gas detection for environments with specific gas hazards. Most G7 gas sensors are compatible with the single-gas cartridge.



Multi-gas diffusion Cartridge

Multi-gas diffusion cartridges support two to four gas sensors and up to five gases when fitted with a dual-toxic COSH sensor. Our multi-gas diffusion cartridge supports all sensors in the G7 porfolio.



Multi-gas pump Cartridge

G7 devices with a multi-gas pump cartridge can monitor up to five gases (when fitted with a COSH sensor) and feature an internal pump. Ideal for confined space entry and leak check applications, users can turn the pump on and off on-the-go and temporarily change G7's functionality using configuration modes — every setting is customizable online through the Blackline Live user portal.

Features

- If a sensor fails or reaches the end of its serviceable life, swap out the cartridge for a new one in seconds
- Quickly convert a G7 device from a single-gas to a multi-gas monitor by changing the cartridge
- G7 sensors and pumps feature a lifetime warranty
- All cartridges are compatible with G7 Dock for straightforward bump tests and calibrations
- G7 devices communicate all test data to the Blackline Safety Network, eliminating the need to manually collect data from the field
- Comprehensive confined space entry and leak check work flows for devices fitted with a pump cartridge
- Automated mapping of the confined space entries, gas exposures, usage and alerts



DETAILED SPECIFICATION

Gas cartridge features

Under limit Over limit Time-weighted average (TWA) Short-term exposure limit (STEL) High gas alert Low gas alert Bump test and calibration notification Bump test and calibration failure

Size & weight

G7 with Standard Cartridge Size: 64 mm x 124 mm x 27 mm (2.5" x 4.9" x 1.1") Weight: 162 g (5.7 oz) G7 with Single-gas Cartridge Size: 64 mm x 128 mm x 27 mm (2.5" x 5.0" x 1.1") Weight: 167 g (5.9 oz) G7 with Multi-gas diffusion Cartridge Size: 66 mm x 150 mm x 27 mm (2.5" x 5.9" x 1.1")

Weight: 192 g (6.8 oz)

G7 with Multi-gas pump Cartridge

Size: 66 mm x 151 mm x 38.5 mm (2.6" x 5.95" x 1.52") Weight: 238 g (8.4 oz)

User notification

Green SureSafe® light: Blinking (powered), continuous (connected) Yellow top and front lights: Yellow pending alarm and yellow warning alarm Red top and front lights: Red alert communicated Blue LiveResponse[™] top and front lights: Confirmation that a monitoring team has acknowledged the alert Alarm Indicators: Speaker, LED lights and vibration motor Speaker sound pressure level: ~95 dB @ 30 cm (~95 dB @ 11.8") Voice calling: Speakerphone and phone modes (G7c model only)

Power & battery

Rechargeable Li-ion battery: 1100 mAh Li-ion Battery Life: 18 hours at 20°C (68°F) under normal usage Charge time: 4 hours

Environmental

Storage temperature: -30°C to 60°C (-22°F to 140°F) Operating temperature: -20°C to 55°C (-4°F to 131°F) Charging temperature: 0°C to 45°C (32°F to 113°F) Ingress Protection: Designed to meet IP67

Approvals

G7c: SAR, RoHS, CE, RCM Unit ID: 3567xxxxx FCC ID: W77G7C | IC: 8255A-G7C Contains FCC ID: XPY1CGM5NNN, IC: 8595A-1CGM5NNN OR

Unit ID: 3566xxxxxx Contains FCC ID: XPY1CGM5NNN, IC: 8595A-1CGM5NNN

Canada & USA: Class I Division 1 Group A,B,C,D T4; Class I Zone 0 AEx da ia IIC T4; Ex da ia IIC T4 Ga IECEx: Ex da ia IIC T4 Ga ATEX: Ex da ia IIC T4 Ga CE $(C \otimes II 1 G)$ LEL: CSA C22.2 No.152; ISA 12.13.01 LEL Pump Cartridge: CSA C22.2 No.152; 0°C \leq Ta \leq 40°C; ANSI/ISA-12.13.01; -10°C \leq Ta \leq 40°C

G7x: SAR, RoHS, RCM

Canada & USA: Class I Division 1 Group A,B,C,D T4; Class I Zone 0 AEx da ia IIC T4; Ex da ia IIC T4 Ga IECEx: Ex ib IIC T4 Gb LEL: CSA C22.2 No.152; ISA 12.13.01 LEL Pump Cartridge: CSA C22.2 No.152; 0°C \leq Ta \leq 40°C; ANSI/ISA-12.13.01; -10°C \leq Ta \leq 40°C

Warranty

Gas sensors and pumps: lifetime warranty with active service plan

Gas sensors

Gas	Sensor type	Sensor model	Range	Resolution
Ammonia (NH3)	Electrochemical	Citytech, Sensoric NH3 3E 100 SE	0–100 ppm	0.1 ppm
High-range ammonia (NH ₃)	Electrochemical	Sensoric NH3 E3 500 SE	0–500 ppm	1 ppm
Carbon monoxide (CO)	Electrochemical	Citytech, 4CF+ CiTiceL	0–500 ppm	1 ppm
High-range carbon monoxide (CO)	Electrochemical	Citytech 4CM	0–2000 ppm	5 ppm
Hydrogen resistant carbon monoxide (CO-H)	Electrochemical	Citytech 2CF3	0–500 ppm	1 ppm
Carbon dioxide (CO ₂)	NDIR	Gas Sensing Solutions, MinIR	0–50,000 ppm	50 ppm
Chlorine (Cl ₂)	Electrochemical	Citytech, Sensoric Cl2 3E 50	0–20 ppm	0.1 ppm
Chlorine dioxide (ClO ₂)	Electrochemical	Sensoric ClO2 3E 1 O	0–2 ppm	0.01 ppm
COSH	Electrochemical	Citytech, 4COSH Dual Gas CO/ H2S Sensor	0–500 ppm CO, 0–100 ppm H₂S	1 ppm CO, 0.1 ppm H₂S
Hydrogen cyanide (HCN)	Electrochemical	Sensoric HCN 3E 30 F	0–30 ppm	0.1 ppm
Hydrogen sulfide (H ₂ S)	Electrochemical	City Technology, 4HS+ Hydrogen Sulfide CiTiceL	0–100 ppm	0.1 ppm
High-range hydrogen sulfide (H₂S)	Electrochemical	City Technology, 4HS+ Hydrogen Sulfide CiTiceL	0-500 ppm	0.5 ppm
LEL-infrared (LEL-IR)	NDIR	MIPEX, 02-X-X-X.1	0-100% LEL	1% LEL
Nitrogen dioxide (NO2)	Electrochemical	City Technology, 4ND	0–50 ppm	0.1 ppm
Oxygen (O2)	Pumped electrochemical	City Technology, 40xLL Longlife Oxygen CiTiceL	0–25% vol	0.1% vol
Ozone (O ₃)	Electrochemical	Sensoric O3 3E 1	0–1 ppm	0.01 ppm
Photoionization (PID) ppm	PID	Ion Science, MiniPID 2	0–4,000 ppm	Dynamic resolution*, 0.1 ppm
Sulfur dioxide (SO ₂)	Electrochemical	City Technology, 4S Rev. 2 Sulfur Dioxide CiTiceL	0–100 ppm	0.1 ppm

