# DATA SHEET

## **blacklinesafety**



# PLUG-AND-PLAY G7 CARTRIDGES

G7 delivers complete customisability, 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 twin-tox 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 customisable online through the Blackline Live user portal.

### Features

- If a sensor fails or reaches the end of its serviceable life, swap the cartridge for a new one in minutes
- Quickly convert a G7 device from a single-gas to a multi-gas monitor simply 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 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 are available from devices fitted with a pump cartridge
- Automated mapping of 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

Арр	rov	als
GZC	SVD	ROH

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

Unit ID: 3566xxxxx 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 $( \bigcirc$ IECEx: Ex da ia IIC T4 Ga ATEX: Ex da ia IIC T4 Ga $( \bigcirc$  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

#### 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 <sub>3</sub> )	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 <sub>2</sub> )	NDIR	Gas Sensing Solutions, MinIR	0–50,000 ppm	50 ppm
Chlorine (Cl <sub>2</sub> )	Electrochemical	Citytech, Sensoric Cl2 3E 50	0–20 ppm	0.1 ppm
Chlorine dioxide (ClO <sub>2</sub> )	Electrochemical	Sensoric CIO2 3E 1 O	0–2 ppm	0.01 ppm
COSH	Electrochemical	Citytech, 4COSH Dual Gas CO/ H <sub>2</sub> S Sensor	0–500 ppm CO, 0–100 ppm H₂S	1 ppm CO, 0.1 ppm H <sub>2</sub>
Hydrogen (H <sub>2</sub> )	Electrochemical	Citytech, H23E4	0–40,000 ppm	1% LEL (40 ppm H <sub>2</sub> )
Hydrogen cyanide (HCN)	Electrochemical	Sensoric HCN 3E 30 F	0–30 ppm	0.1 ppm
Hydrogen sulphide (H <sub>2</sub> S)	Electrochemical	City Technology, 4HS+ Hydrogen Sulphide CiTiceL	0–100 ppm	0.1 ppm
High-range hydrogen sulphide (H2S)	Electrochemical	City Technology, 4HS+ Hydrogen Sulphide 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 (O3)	Electrochemical	Sensoric O3 3E 1	0–1 ppm	0.01 ppm
Photoionisation (PID) ppm	PID	Ion Science, MiniPID 2	0–4,000 ppm*	Dynamic resolution*
Photoionisation (PID) ppb	PID	Ion Science, MiniPID 2	0-10,000 ppb*	Dynamic resolution*
Sulphur dioxide (SO <sub>2</sub> )	Electrochemical	City Technology, 4S Rev. 2 Sulphur Dioxide CiTiceL	0–100 ppm	0.1 ppm



#### All specifications subject to change without notice \* Dependant on correction factor.