



# G7<sup>c</sup>

## THE WORLD'S HARDEST-WORKING CONNECTED MONITOR

Blackline Safety's G7c uses integrated LTE/3G/2G connectivity to wirelessly link your team to real people, while automating data analytics and compliance reporting. Should a gas leak, injury or health event occur, G7c confidently accounts for everyone's wellbeing and whereabouts in real-time, so no call for help ever goes unanswered.

G7c automatically watches over employees and lone workers. All safety incidents are communicated to 24/7 live monitoring personnel who can mobilise responders to an employee's exact location or trigger an evacuation in real-time. With a two-way speakerphone, monitoring personnel can communicate directly with the worker, providing critical insights and situational awareness for optimised emergency responses.

G7c delivers an exclusive customisable modular design, delivering the ability to expand functionality with a range of plug-and-play cartridges and a range of gas sensors. Choose from a Standard, Single-gas, Multi-gas diffusion or Multi-gas pump cartridge to address the needs of your work environment — everything is completely configurable to meet the needs of every industry, application and scenario.

G7c devices collect more data than ever before, automatically streaming it to the Blackline Safety Network when in areas of cellular coverage. All event and alert data is time and location-stamped, powering our Blackline Analytics reporting platform. Bump test and calibration data is also communicated seamlessly, for live compliance visibility and reporting. Teams can easily analyse their data without ever having to manually collect and compile anything. G7c does it all, so you don't have to.

### Features



Fall detection



No-motion detection



Two-way voice and text messaging



Configuration modes



SOS alert



Check-in



Assisted-GPS



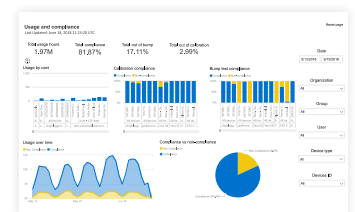
Indoor location technology



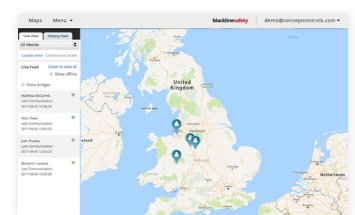
Gas alarms



Push-to-talk



Blackline Analytics reporting platform



Blackline Live safety monitoring portal

# DETAILED SPECIFICATION

## Standard G7 safety features

**Fall detection and No-motion detection:** Tri-axis accelerometer, tri-axis gyro, software processing, configurable sensitivity, configurable time for no-motion  
**SOS latch:** Pull latch to trigger SOS alert  
**Silent SOS:** Press and hold latch to trigger SOS alert  
**Low-battery:** Configurable threshold  
**Worker check-in:** Configurable timer (30 – 180 min, or off), automatic check-in when driving

## Additional 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 interface

168 by 144 pixel graphical, high contrast, liquid crystal display with front lighting, menu system driven by three-button keypad, power button (on/off), check-in button (check-in/silent SOS), SOS latch (send emergency alert)  
**Multi-language support:** Yes, EN, FR, ES, DE, IT, NL, PT

## 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)

## G7c wireless radio

**Wireless coverage:** 100 countries, 200 wireless carriers  
**North America:** 2G/3G radio, GSM 850 MHz, PCS 1900 MHz, 3G UMTS bands 2, 5 and 6  
**Europe/International:** 2G/3G radio, E-GSM 900 MHz, DSC 1800 MHz, 3G UMTS bands 1 and 8  
**Antenna:** Internal regionally optimised

## Location technology

**GPS Radio:** 48-channel high sensitivity  
**Assisted-GPS:** Yes (G7c model only)  
**GPS Accuracy:** ~5 m (16 ft) Outdoors  
**Indoor location technology:** Blackline Safety location beacons  
**Location update frequency:** G7c 5 min, G7x 15 min defaults

## 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

## Gas sensors

Gas	Sensor type	Sensor model	Range	Resolution
Ammonia (NH <sub>3</sub> )	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 ClO2 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 H <sub>2</sub> S	1 ppm CO, 0.1 ppm H <sub>2</sub> S
Hydrogen (H <sub>2</sub> )	Electrochemical	Citytech, H23E4	0–40,000 ppm	1% LEL (400 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 (H <sub>2</sub> S)	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 (NO <sub>2</sub> )	Electrochemical	City Technology, 4ND	0–50 ppm	0.1 ppm
Oxygen (O <sub>2</sub> )	Pumped electrochemical	City Technology, 4OxLL Longlife Oxygen CiTiceL	0–25% vol	0.1% vol
Ozone (O <sub>3</sub> )	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

## Approvals

**G7c:** SAR, RoHS, CE, RCM  
**Unit ID:** 3570xxxxxx  
**FCC ID:** W77G7C2 | **IC ID:** 8255A-G7C2  
 Contains FCC ID: XPY1EIQ24NN, IC: 8595A-1EIQ24NN  
**OR**  
**Unit ID:** 3567xxxxxx  
**FCC ID:** W77G7C | **IC ID:** 8255A-G7C  
 Contains FCC ID: XPY1CGM5NNN, IC: 8595A-1CGM5NNN  
**OR**  
**Unit ID:** 3566xxxxxx  
 Contains FCC ID: XPY1CGM5NNN, IC: 8595A-1CGM5NNN  
**Canada and USA:** Class I Division 1 Gr A, B, C, D,   
 Class I Zone 0 AEx da ia IIC T4; Ex da ia IIC T4 Ga  
**IECEx:** Ex da ia IIC T4 Ga   II 1 G  
**ATEX:** Ex da ia IIC T4 Ga

**LEL:** CSA C22.2 No. 152; ISA 12.13.01  
**LEL Pump Cartridge:** CSA C22.2 No.152; 0°C ≤ Ta ≤ 40°C; ANSI/ISA-12.13.01; -10°C ≤ Ta ≤ 40°C

## Warranty

**G7:** two years limited warranty  
**Cartridges:** lifetime with service plan  
**Blackline Complete:** three year operating lease with three year warranty

## Blackline Live web application

Cloud-hosted safety monitoring web application is highly customisable for every customer requirement. Includes live map, employee address book, user roles, alert management, device configurations, alert setups and reporting.