



G7c

THE WORLD'S HARDEST-WORKING CONNECTED MONITOR

Blackline Safety's G7c leverages integrated 4G/3G-cellular 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 well-being and whereabouts in real-time, so no call for help ever goes unanswered.

The moment something happens, safety incident data is communicated to live monitoring personnel who can mobilize 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 to provide comfort while also gathering critical insights and situational awareness for optimized emergency responses.

G7c delivers an exclusive customizable 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.

With G7c, you have access to more information than ever before. Usage and event data automatically streams to the cloud when in areas of cellular coverage. Everything 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 analyze 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



Push-to-talk



SOS alert



Check-in



Assisted-GPS



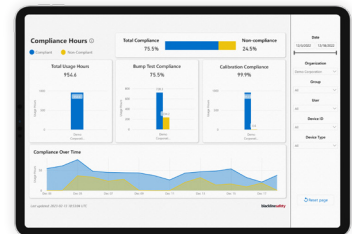
Indoor location technology



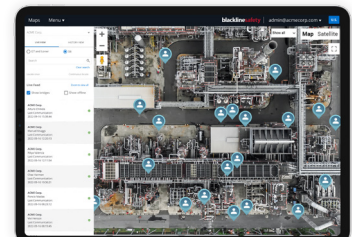
Gas alarms



Configuration modes



Blackline Analytics reporting platform



Blackline Live safety monitoring portal

DETAILED SPECIFICATIONS

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

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 29 mm (2.52" x 4.88" x 1.06")
 Weight: 162 g (5.7 oz)

G7 with Single-gas Cartridge
 Size: 64 mm x 128 mm x 29 mm (2.52" x 5.04" x 1.06")
 Weight: 167 g (5.9 oz)

G7 with Multi-gas diffusion Cartridge
 Size: 66 mm x 150 mm x 29 mm (2.52" x 5.91" x 1.06")
 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)
 Target flow rate: 300ml/min
 Maximum tubing length:
 100ft x 0.188" diameter (30.2m x 4.78mm) **or**
 50ft x 0.125" diameter (15.25m x 3.17mm)

Wireless updates

Device configuration changes: Yes
 Device firmware upgrade over-the-air (FOTA): Yes

User interface

Display: 168 by 144 pixel graphical, high contrast, liquid crystal display with front lighting
Menu system: Driven by three-button keypad
Power button: On/off
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: Operational and low urgency notification
Red top and front lights: High urgency notification
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: 172 countries, 306 operators
Bands: 4G LTE 1, 12, 13, 18, 19, 2, 20, 26, 28, 3, 38, 39, 4, 40, 41, 5, 7, 8; 3G UMTS 1900, 2100, 850, 900; 2G GSM 850/900/1800/1900
Antenna: Internal regionally optimized

Location technology

GNSS Radio: 72-channel
GPS Radio: 48-channel high sensitivity
Assisted-GPS: Yes (G7c model only)
GPS Accuracy: 5 meters (16 ft), CEP 50%, 24 hours stationary sky view
Indoor location technology: Blackline Safety location beacons
Location update frequency: G7c 5 min, G7x 15 min defaults

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

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

Warranty

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

Approvals

G7c: SAR, RoHS, CE, RCM
FCC ID: XPYUBX21BE01 **IC:** 8595A-UBX21BE01
Contains FCC ID: XPY1EIQ24NN **IC:** 8595A-1EIQ24NN

Intrinsic Safety

Canada & USA: MC267256; Class I Division 1 Group A,B,C,D T4; Class I Zone 0 AEx da ia IIC T4 Ga; Ex da ia IIC T4 Ga
IECEX: CSA 17.0005X; Ex da ia IIC T4 Ga
ATEX: Sira 17ATEX2083X; Ex da ia IIC T4 Ga
UKCA: CSAE 21 UKEX2217X; 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

Gas	Sensor type	Range	Resolution
Ammonia (NH ₃)	Electrochemical	0–100 ppm	0.1 ppm
High-range ammonia (NH ₃)	Electrochemical	0–500 ppm	1 ppm
Carbon dioxide (CO ₂)	NDIR	0–50,000 ppm	50 ppm
Carbon monoxide (CO)	Electrochemical	0–500 ppm	1 ppm
Chlorine (Cl ₂)*	Electrochemical	0–20 ppm	0.1 ppm
Chlorine dioxide (ClO ₂)*	Electrochemical	0–2 ppm	0.01 ppm
Combustible-infrared (LEL-IR)	NDIR	0–100% LEL	1% LEL
Combustible MPS (LEL-MPS)*** <small>See Blackline's LEL-MPS datasheet for more information</small>	Molecular property spectrometer™	0–100% LEL	1% LEL
COSH	Electrochemical	0–500 ppm CO, 0–100 ppm H ₂ S	1 ppm CO, 0.1 ppm H ₂ S
High-range carbon monoxide (CO)	Electrochemical	0–2000 ppm	5 ppm
High-range hydrogen sulfide (H ₂ S)	Electrochemical	0–500 ppm	0.5 ppm
Hydrogen cyanide (HCN)	Electrochemical	0–30 ppm	0.1 ppm
Hydrogen fluoride (HF)*	Electrochemical	0–10 ppm	0.1 ppm
Hydrogen resistant carbon monoxide (CO-H)	Electrochemical	0–500 ppm	1 ppm
Hydrogen sulfide (H ₂ S)	Electrochemical	0–100 ppm	0.1 ppm
Nitrogen dioxide (NO ₂)	Electrochemical	0–50 ppm	0.1 ppm
Oxygen (O ₂)	Pumped electrochemical	0–25% vol	0.1% vol
Ozone (O ₃)*	Electrochemical	0–1 ppm	0.01 ppm
Photoionization (PID) ppm	PID	0–4,000 ppm	Dynamic resolution**, 0.1 ppm
Sulfur dioxide (SO ₂)	Electrochemical	0–100 ppm	0.1 ppm

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All specifications subject to change without notice.
 *Not all sensors work with the pump cartridge. **Dependant on correction factor.
 ***Operating pressure: 80 to 120 kPa (11.6 psi to 17.4 psi).