# SHOCK BLOCK® SB5000
## FOR THE MINING INDUSTRY

**PORTABLE EQUIPMENT:**
- WELDER
- BORING BAR

**SHOP BAYS:**
- WELDER
- PUMPING SKIDS
- DEWATERING PUMPS
- SUBMERSIBLE PUMPS

## Advancing Electrical Safety at the Mine with the Most Reliable GFCI Protection - up to 600 V

In the mining industry, providing power for lighting, conveyors, pumps, fans, and other equipment can create a situation where personnel can be exposed to electrical shock hazards. The Littelfuse SB5000 ensures safe distribution of electrical power in both surface and underground mining.

## The Littelfuse Shock Block SB5000:

- reduces unnecessary tripping by following an inverse trip time and using DFT filtering
- is offered in a hygienic stainless steel enclosure, with NEMA 4X and IP69K ratings well suited for food-preparation environments
- has advanced ground-check features with Zener termination options, which can identify a crushed cable before the equipment is energized
- improves safety by reducing the risk of ventricular fibrillation for leakage current of 250 mA and above

## Rock-Solid Business Defense

- Shock Block is an investment in employee health. Injury claims and potential lawsuits arising from electrical shock accidents are prevented
- Minimize excess training time, as Shock Block does the work behind the scenes to keep employees safe from electrical shock without human intervention

## Description

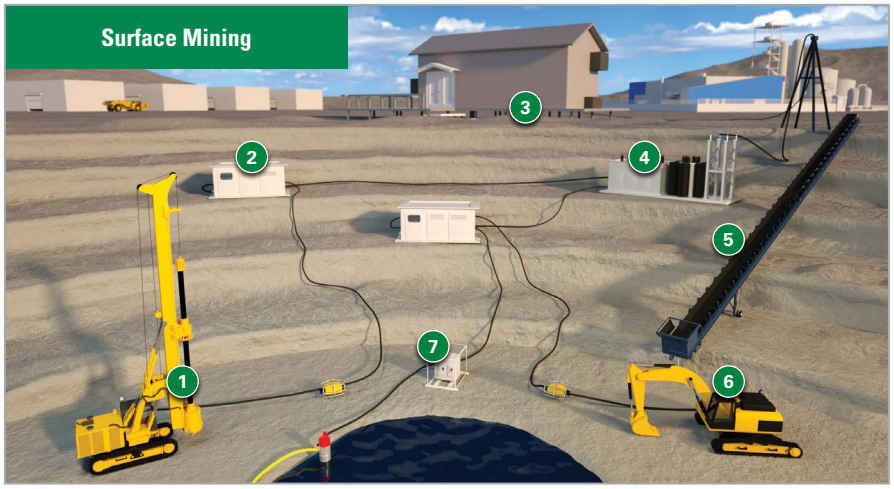
Available with Class A, C, D and EGFPD options, the SB5000 can be used in a wide range of applications. It offers proactive ground check on every model and helps increase efficiency and safety with a no-nuisance approach to personnel protection. The 32 A and 60 A models are also available in a hygienic stainless steel enclosure, with a 10 degree sloped top and FDA-compliant silicone gasket, designed to improve sanitation in food processing facilities. It is UL-certified as a 3-phase industrial GFCI for 208 to 600 V applications with a maximum full load current up to 100 A.

## Features & Benefits

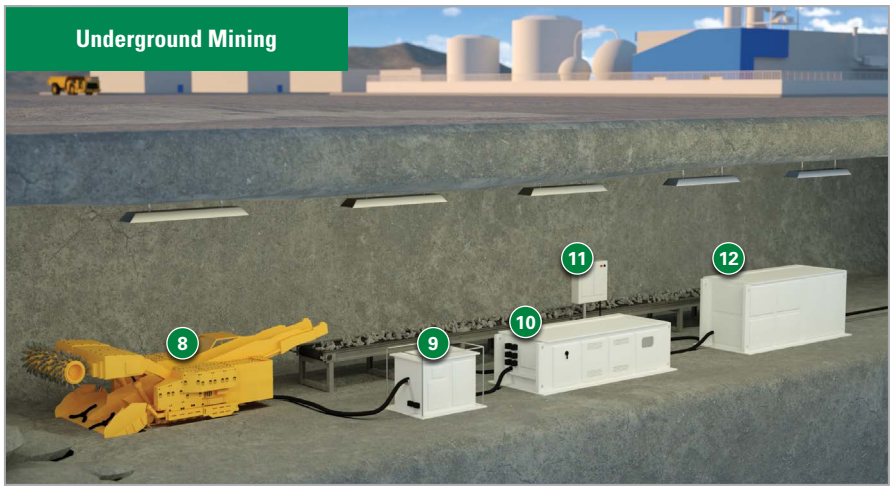
| Feature | Benefit |
|---|---|
| UL 943 inverse time trip curve | Inverse time detection circuit protects people while also reducing unnecessary trips |
| DFT (Discrete Fourier Transform) filtering algorithm | Eliminates nuisance trips due to harmonics |
| Minimum trip time < 20 msec | Reduces the risk of ventricular fibrillation for leakage current of 250 mA and above |
| Fixed 6 mA (UL 943) or 20 mA (UL 943C) trip level | UL Listed GFCI and personnel protection for industrial and commercial loads up to 100 A |
| Selectable trip levels (EGFPD) 6-100 mA | The settings below 20 mA provide extra safety. The settings above 20 mA can provide partial range personnel protection for loads with higher nominal leakage currents. |
| Two-stage ground monitor with Zener termination that meets UL 943C and CSA M421 | Proactively protects from shock by tripping if continuity of ground wire between Industrial Shock Block and load is compromised |
| Flexible configuration | Selectable manual reset or auto reset for brownout, power up, and ground monitor interruptions to fit safety protocols |
| Conformal coating | Circuit boards are conformally coated to protect against corrosion and moisture |
| Auxiliary contact | Alerts your SCADA system if the Shock Block is energized or tripped |
| Automatic self-test | The Shock Block will continuously test itself and will trip if there is an internal failure |
| GFCI Class A, C, D and EGFPD options in one series | Simplified planning and operator familiarity for multiple applications/requirements |
| Hygienic stainless steel enclosure, with a 10 degree sloped top and FDA-compliant blue silicone gasket | Designed to support sanitation process in food processing facilities. |

Littelfuse®
Expertise Applied | Answers Delivered

# SB5000 Industrial GFCI for Electrical Shock Protection in Surface and Underground Mining




1. Mining Drill
2. Portable Power Center
3. Electrical Modular Building / E-House
4. Switchgear
5. Conveyor System
6. Mining Shovel
7. Portable Pump Panel




8. Mining Machine
9. Power Center
10. Conveyor Substation
11. Power Take-Off Panel
12. Main Substation

## Ordering Information

**Example catalog number from desired options**

**S B 5 0 6 0 - 0 2 1 - 0**

| SERIES PREFIX | LOAD | VOLTAGE | | TRIP LEVEL | | | ENCLOSURE | |
|---|---|---|---|---|---|---|---|---|
| | RATING | RATING | OPTION CODE | RATING | UL CATEGORY | OPTION CODE | TYPE | OPTION CODE |
| | 32 | 208 V | 0 | 20 mA (fixed) | UL 943C Class C or D SPGFCI | 0 | Polycarbonate | 1 |
| | 60 | 480 V | 2 | 6–100 mA (adjustable) | UL 943/1053 EGFPD | 1 | Stainless Steel | 2 |
| | 80 | 600 V | 3 | 6 mA (fixed) | UL 943 Class A GFCI | 2 | Stainless Steel CII, D2 | 3 |
| | 100 | | | | | | | |

For more information, visit **Littelfuse.com/ShockProtection**





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