



SHOCK BLOCK® SB5000 IN FOOD & BEVERAGE PROCESSING

The most reliable GFCI for shock protection on 208–600 V equipment

In food and beverage processing, the combination of a wet environment, stainless steel equipment and conductive surfaces creates a situation where shock is more likely to occur. The NEC 210.8[B] code requires GFCI protection for any plug and cord equipment that is 208 V, 3-phase and 100 A or below. Plug-in equipment such as dryers, mixers, cutting equipment, and conveyers fall into this category and must be protected with a GFCI. The Littelfuse SB5000 will meet this code requirement for your facility, but the protection doesn't stop at 208 V. The Littelfuse Shock Block is also offered as Special Purpose GFCI protection all the way up to 600 V—personnel protection for all situations.

The Littelfuse Shock Block SB5000 is the only device on the market that:

- reduces unnecessary tripping by using DFT filtering and taking advantage of the full UL 943 inverse time curve;
- includes NEMA 4X and IP69K enclosure ratings well suited for food-preparation environments; and
- has advanced ground-check features with Zener termination options, which can identify a crushed cable before the equipment is energized

Description

Available with Class A, C, D and EGFPD options, the SB5000 can be used in a wide range of applications. It offers the flexibility of being user programmable and helps increase efficiency and safety with reduced false positives and unnecessary trips.

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 Special-Purpose GFCI personnel protection for industrial and commercial loads up to 60 A
Selectable trip levels (EGFPD)	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, CSA M421, NEC 590.6(B)	Proactively protects from shock by tripping if continuity of ground wire between Industrial Shock Block and load is broken
Flexible configuration	Selectable manual reset or auto reset for brownout, power up, and ground monitor interruptions to fit plant safety protocols
Conformal coating	Internal PWB is 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

Common 3-Phase Loads in Food Manufacturing



① Bandsaw

② Mixing/Grinding Appliances

③ Drop-Down Receptacles for Prep

④ Conveyor

Ordering Information

Example catalog number from desired options

SB5060-021-0

SERIES PREFIX	LOAD RATING	VOLTAGE		TRIP LEVEL			ENCLOSURE	
		RATING	OPTION CODE	RATING	UL CATEGORY	OPTION CODE	RATING	OPTION CODE
	32	208 V	0	20 mA (fixed)	UL 943C Class C or D SPGFCI	0	IP69K/NEMA 4X	1
	60	480 V	2	6–100 mA (adjustable)	UL 943/1053 EGFPD	1	IP69K/NEMA 4X and Class II, Division 2	2
		600 V	3	6 mA (fixed)	UL 943 Class A GFCI	2		

For more information, visit [Littelfuse.com/ShockProtection](https://www.littelfuse.com/ShockProtection)

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