

Introduction – Electronic Fusing System WAVEGUARD

Weidmüller's WAVEGUARD Electronic Fusing System dramatically enhances the reliability of an automation control panel.

WAVEGUARD Electronic Fuses are used by connecting them in series between a switch mode DC power supply and each of the loads in a control panel. These electronic fuses constantly monitor the current delivered to their assigned load and measure the delivery time, and when an overload or short circuit current is detected, they open the load's circuit within microseconds. The electronic fuse will isolate the failing circuit before the DC power supply initiates a self-shutdown routine (most DC power supplies take milliseconds to initiate the self-shutdown routine). This ensures continued delivery of power to the rest of the circuits in the automation control panel.

When either an overload or a short circuit occurs, the WAVEGUARD Electronic Fuse will not only prevent the entire process or machines dependent on the control panel from shutting down, but it will also facilitate quick problem resolution by isolating the specific failure and indicating which circuit has failed via fault contact and LED indication.

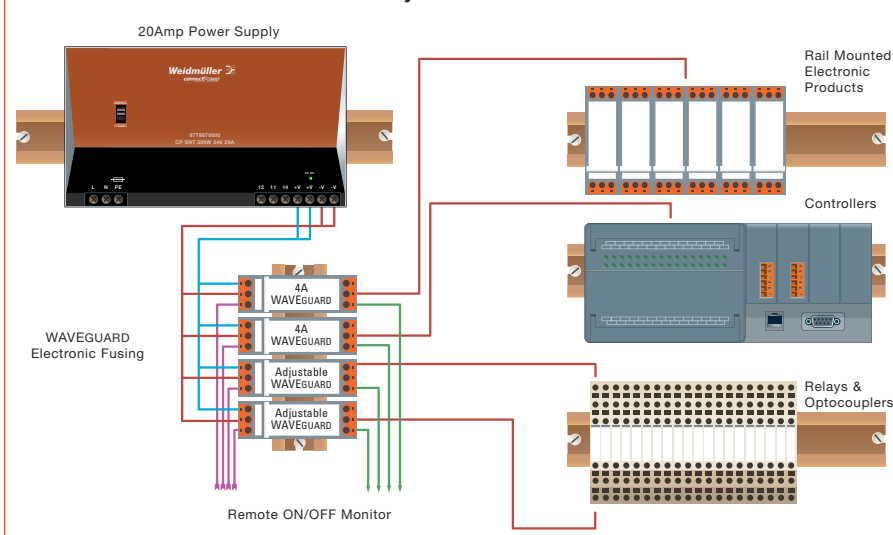
WAVEGUARD Electronic fuses offer a number of advantages over melting fuses and conventional electromechanical circuit breakers.



WAVEGUARD Electronic Fuses:

- Are transistor-based switching solutions that are not affected by temperature changes. Operation points of melting fuses and electromechanic circuit breakers are dependent on ambient temperature changes.
- Provide remote monitoring and reset inputs to reduce maintenance costs
- Have local monitoring and electrical resetting inputs so you can quickly troubleshoot to get the system up and running within minutes.
- Ride through peak in-rush current at system start up to prevent nuisance tripping.
- Are DIN-rail mountable, and are available in a fixed current rating of 4.0 Amps, and adjustable rating of 0.5 to 5.0 Amps.

Protect and Monitor DC Power of Control Systems

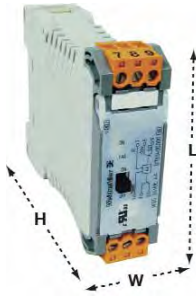


- Prevents a failure on a single load from shutting down an entire panel or system
- WAVEGUARD electronic fuses are connected in series between the power supply and each of the loads
- WAVEGUARD fuses can be remotely monitored and reset for control panel troubleshooting

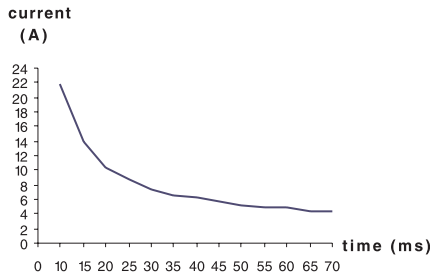
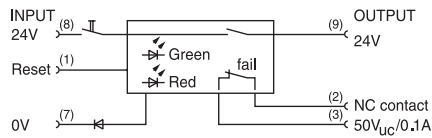
Electronic Fusing System WAVEGUARD

WGS 24VDC 4.00A

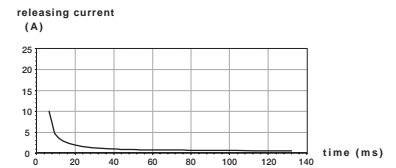
WGS 24VDC ADJ 0.5...5.0A



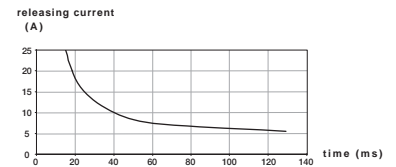
Approvals:



Characteristic curve
Releasing current: 0.5A



Releasing current: 5.0A



Ordering Data	
Screw connection	

Technical Data	
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Input	Rated voltage	24 VDC
	Rated current	4.00 A
	Reset	Pulse >100 ms +24 V, falling edge "ON".

Output	Differential relay/signal contact	Break cont. elem. max. 50V/0.05A; only extra-low voltage
	Signaling delay	3.5 ms typ.

Temperature	Operating	0°C...+55°C (+32°F...+131°F)
	Storage	-20°C...+85°C (-4°F...+185°F)

Status indicator	LED green: OK
	LED red: Tripped

Standards	EN 50178
EMC standards	EN 61000-6-1, 2, 4; EN 55011
Sliding switch	"OFF" - 10 sec. waiting - "ON"

Clamping range (rating / min. / max.)	Screw connection	2.50/0.50/2.50 mm ² (14 AWG)
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Dimensions (L x W x H)	72 x 22.5 x 92.4 mm (2.83 x 0.88 x 3.64 in.)
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Approvals/Certifications

Type	Order No.
WGS 24VDC 4.00A	8783400000

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Approvals/Certifications

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WGS 24VDC ADJ 0.5...5.0A	8710270000

Type	Order No.
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	Rated current	0.5...5.0 A
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Approvals/Certifications

Cyclical auto-reset not permitted; T_u = 23°C (73.4°F) single module