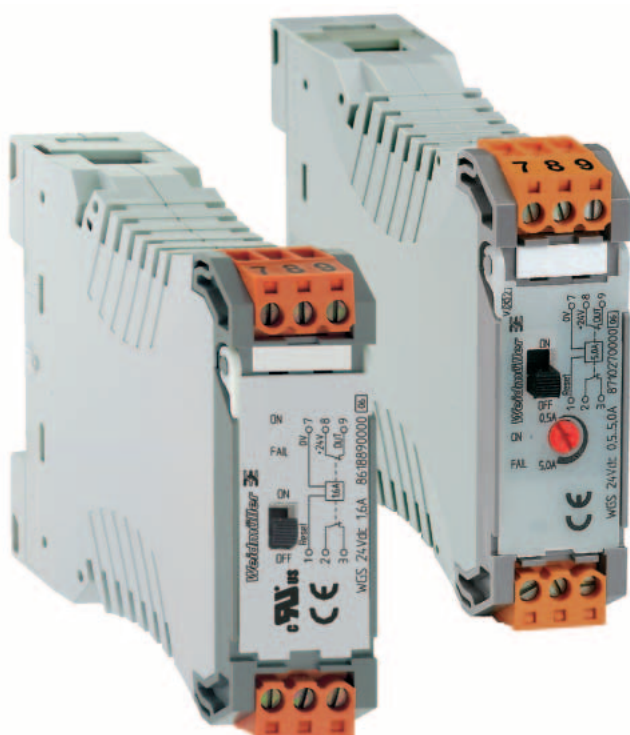


Electronic Fusing System WAVEGUARD

Fixed range	WGS/WGZ 24 V DC 1.6 A
	WGS/WGZ 24 V DC 3.15 A
	WGS/WGZ 24 V DC 6.3 A
	WGS/WGZ 24 V DC 8.0 A
Adjustable range	WGS/WGZ 24 V DC 0.5...5.0 A



- Selective dynamic and static fusing of 24 V DC circuits
- Various nominal currents
- Can be switched off and reset with help of switches
- Supplementary reset input
- Visual signal indication
- Potential-free signal contact

United Kingdom

Weidmüller Ltd.
1 Abbey Wood Road
Kings Hill
West Malling
Kent ME19 4YT
Phone +44 1732 877032
Fax +44 1732 873873
info@weidmuller.co.uk
www.weidmueller.com

USA

W-Interconnections, Inc.
821 Southlake Boulevard,
Richmond, VA 23236
Phone +1 804 7942877
Fax +1 804 3792593
info@weidmuller.com
www.weidmuller.com

Other countries

Weidmüller Interface GmbH & Co. KG
P.O. Box 3030
D-32720 Detmold
Phone +49 5231 14-0
Fax +49 5231 14-20 83
info@weidmueller.com
www.weidmueller.com

Power supplies

Electronic fuse WAVEGUARD



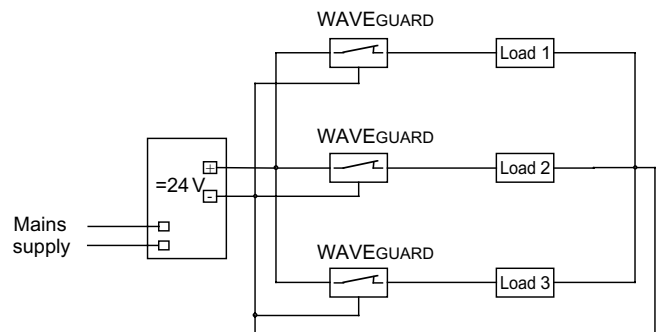
WAVEGUARD is designed for use with switch mode power supplies. The technical characteristics of switched-mode power supply units mean that they either cannot supply a dynamic output current or can only do so within defined limits. They cannot reliably trip conventional circuit breakers and melting fuse. The WAVEGUARD electronic fuse was specially developed for this application. The electronic fuse is of course also suitable for all direct current applications.

Connection

The WAVEGUARD electronic fuse is connected into the positive branch of the circuit to be protected, like a conventional melting fuse or automatic circuit breaker. For power supply to the integrated electronics, the 0V potential must also be connected to the fuse.

Selective dynamic and static protection of 24 V DC circuits

The electronic fuse consists of two fuse elements connected in series: a conventional melting fuse and an electronic fuse. This is realised with a rapidly responding solid-state switch. The circuit detects the current flowing through the fuse – when the current reaches the set maximum permissible value, the solid-state switch switches off within microseconds. The current flow is interrupted. This static value for maximum current is 100% of the fuse rating, but the fuse also has a dynamic component. That means it permits a higher current – similar to the tolerance factor of a conventional fuse – but only for a short time. After the dynamic phase, the electronic fuse is ready to trip at 100% of the rated current again. The values are selected to ensure that the upstream melting fuse does not trip.



Various rated currents

The operating current is precisely adjustable between 0.5 ... 8 A in the manufacturing process with a combination of resistors. There are 4 current ratings available as standard: 1.6 A, 3.15 A, 6.3 A and 8 A. Intermediate values can be realised at any time on request.

Switching off and resetting with a switch

The sliding switch integrated into the front is provided for switching the fuse element on and off. In the tripped state, the fuse can be switched on again with this switch provided the fault has been eliminated. Simply move the switch to "OFF", wait 10 seconds, and switch on again.

Additional reset input

For the purpose of remote reset, a voltage pulse can be applied to the reset input; the load circuit is closed with the falling flank of the pulse. Cyclic auto-reset is not permitted, nor is this advisable for safety reasons.

Warning LED and potential-free signal contact

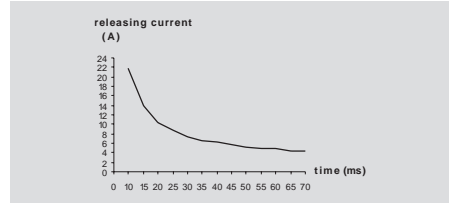
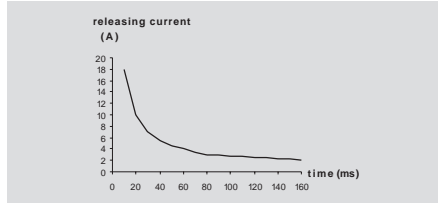
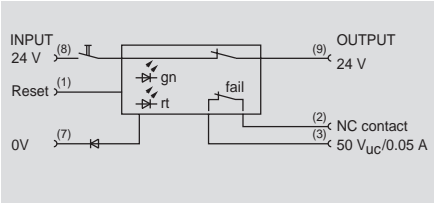
Any fault that occurs must be signalled. An integrated LED and signal contact (NCC) indicate the switched state of the fuse. This helps to speed up troubleshooting and reduces repair costs.

Fuse for 24 V DC electric circuits

WAVEGUARD

24 V DC 1.6 A

24 V DC 3.15 A



Technical data

Input

Rated voltage
Rated current
Reset

Output

Differential relay / signal contact
Signaling delay

General data

Operation temperature
Storage temperature
Status display
Standards
EMC standards
Sliding switch
Approvals

24 V DC
1.6 A
Pulse > 100 ms +24 V, falling edge ON

Break cont. elem. max. 50 V / 0.05 A; only extra-low voltage!
3.5 ms typ.

0 °C...+55 °C (fitted)
-20 °C...+85 °C
LED green: OK, LED red: Tripped
EN 50178
EN 61000-6-1, 2, 4; EN 55011
OFF - 10 sec. waiting - ON; on / off
CE / cURus

24 V DC
3.15 A
Pulse > 100 ms +24 V, falling edge ON

Break cont. elem. max. 50 V / 0.05 A; only extra-low voltage!
3.5 ms typ.

0 °C...+55 °C (fitted)
-20 °C...+85 °C
LED green: OK, LED red: Tripped
EN 50178
EN 61000-6-1, 2, 4; EN 55011
OFF - 10 sec. waiting - ON; on / off
CE / cURus

Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Screw connection

2.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4

Tension clamp c.

1.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4

Screw connection

2.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4

Tension clamp c.

1.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4

Information

Cyclical auto-reset not permitted; Tu=23°C, single module

Cyclical auto-reset not permitted; Tu=23°C, single module

Ordering data

Connection technology

Screw connection
Tension clamp c.

Type	Qty.	Order No.
WGS 24V DC 1.6A	1	8618890000
WGZ 24V DC 1.6A	1	8621040000

Type	Qty.	Order No.
WGS 24V DC 3.15A	1	8618910000
WGZ 24V DC 3.15A	1	8621030000

Information

Accessories

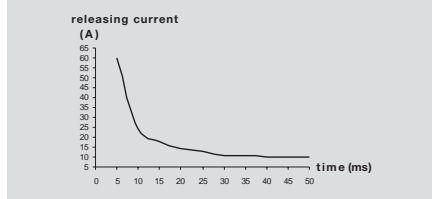
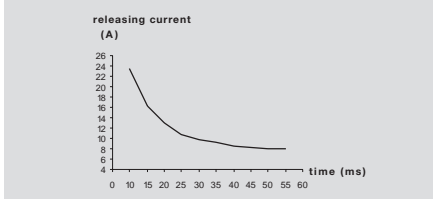
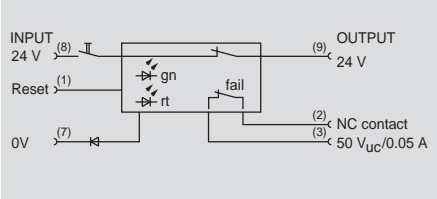
Information

Fuse for 24 V DC electric circuits

WAVEGUARD

24 V DC 6.3 A

24 V DC 8 A



Technical data

Input

Rated voltage
Rated current
Reset

Output

Differential relay / signal contact
Signaling delay

General data

Operation temperature
Storage temperature
Status display
Standards
EMC standards
Sliding switch
Approvals

24 V DC

6.3 A

Pulse > 100 ms +24 V, falling edge ON

Break cont. elem. max. 50 V / 0.05 A; only extra-low voltage!
3.5 ms typ.

0 °C...+55 °C (fitted)

-20 °C...+85 °C

LED green: OK, LED red: Tripped

EN 50178

EN 61000-6-1, 2, 4; EN 55011

OFF - 10 sec. waiting - ON; on / off

CE / cURus

24 V DC

8 A

Pulse > 100 ms +24 V, falling edge ON

Break cont. elem. max. 50 V / 0.05 A; only extra-low voltage!
3.5 ms typ.

0 °C...+55 °C (fitted)

-20 °C...+85 °C

LED green: OK, LED red: Tripped

EN 50178

EN 61000-6-1, 2, 4; EN 55011

OFF - 10 sec. waiting - ON; on / off

CE / cURus

Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Information

Screw connection

Tension clamp c.

2.50 / 0.50 / 2.50 1.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4 72.0 x 22.5 x 92.4

Cyclical auto-reset not permitted; Tu=23°C, single module

Screw connection

Tension clamp c.

2.50 / 0.50 / 2.50 1.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4 72.0 x 22.5 x 92.4

Cyclical auto-reset not permitted; Tu=23°C, single module

Ordering data

Connection technology

Screw connection
Tension clamp c.

Type	Qty.	Order No.
WGS 24V DC 6.3A	1	8618930000
WGZ 24V DC 6.3A	1	8621020000

Type	Qty.	Order No.
WGS 24V DC 8.0A	1	8618940000
WGZ 24V DC 8.0A	1	8621010000

Information

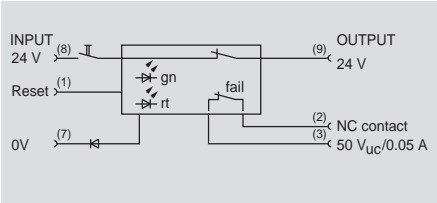
Accessories

Information

Fuse for 24 V DC electric circuits

WAVEGUARD adjustable range

24 V DC 0.5...5.0 A



Technical data

Input

Rated voltage
Rated current
Reset

Output

Differential relay / signal contact
Signaling delay

General data

Operation temperature
Storage temperature
Status display
Standards
EMC standards
Sliding switch
Approvals

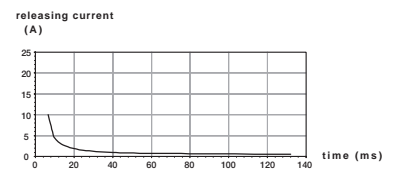
24 V DC
0,5...5,0 A
Pulse > 100 ms +24 V, falling edge ON

Break cont. elem. max. 50 V / 0.05 A; only extra-low voltage!
3.5 ms typ.

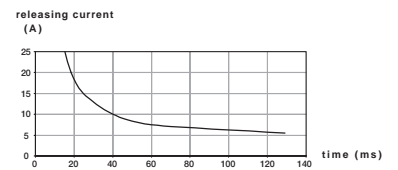
0 °C...+55 °C (fitted)
-20 °C...+85 °C
LED green: OK, LED red: Tripped
EN 50178
EN 61000-6-1, 2, 4; EN 55011
OFF - 10 sec. waiting - ON; on / off
CE

Characteristic curve

Releasing current: 0.5 A



Releasing current: 5.0 A



Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Screw connection

2.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4

Tension clamp c.

1.50 / 0.50 / 2.50
72.0 x 22.5 x 92.4

Information

Cyclical auto-reset not permitted; Tu=23°C, single module

Ordering data

Connection technology

Screw connection

Type	Qty.	Order No.
WGS 24V DC 0,5...5,0A	1	8710270000
WGZ 24V DC 0,5...5,0A	1	8727630000

Information

Accessories

Information

Fuse for 24 V DC electric circuits

Dimensions

