

GRUNER RELAYS

SOLUTIONS FOR THE AUTOMOTIVE SECTOR



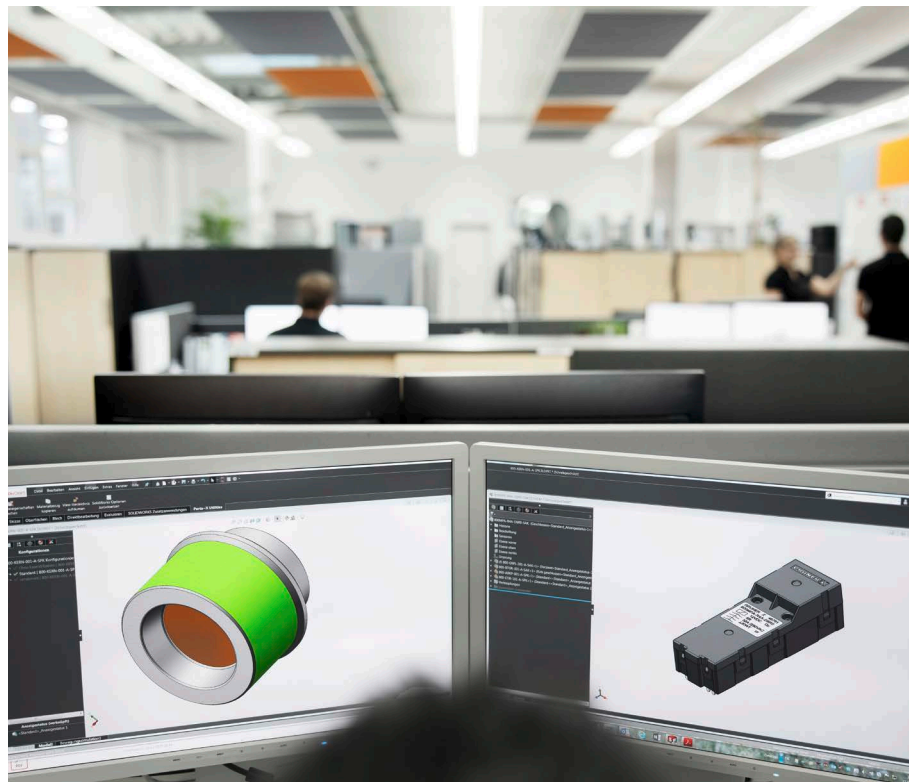


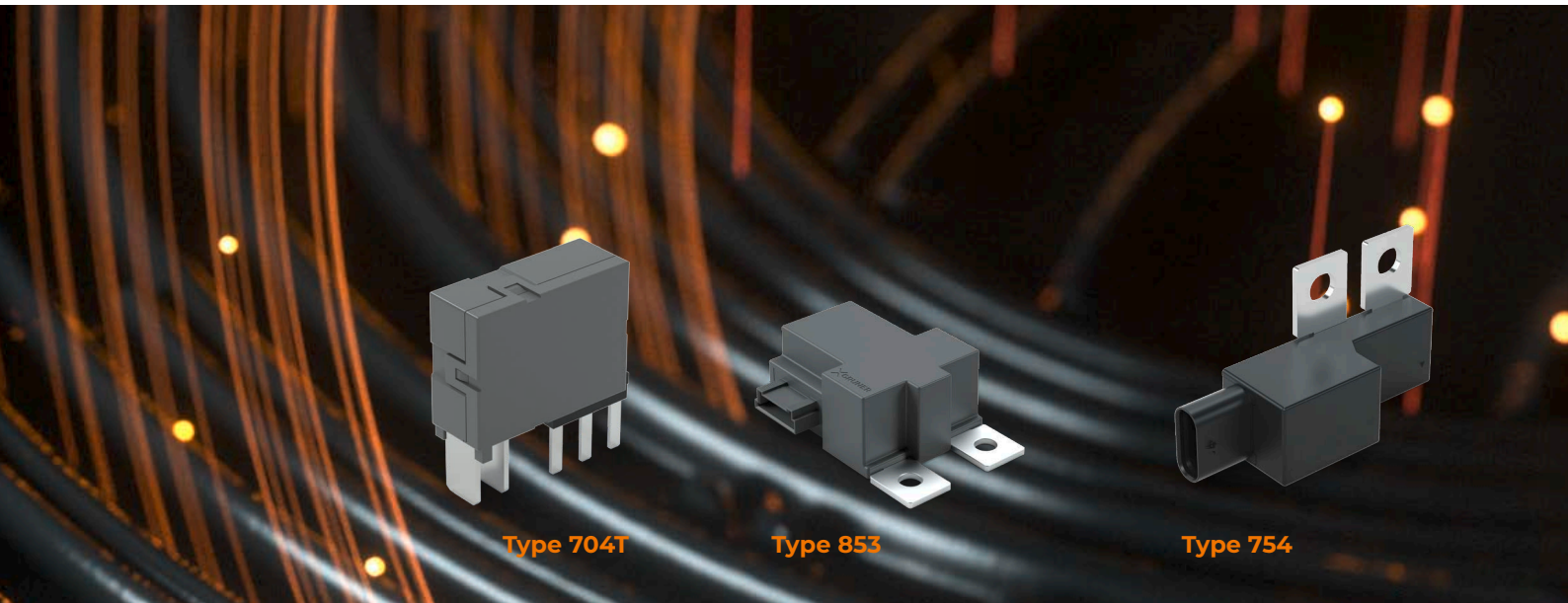
GRUNER DOES NOT HAVE
A CRYSTAL BALL
BUT OUR RELAYS SUIT THE
MOBILITY OF TOMORROW.

INNOVATION WITH EXPERIENCE – GRUNER RELAYS

Switch to innovations is the motto under which we bring our relays to the market and to the application. Today, Gruner is one of the last independent manufacturers of relays in Germany and the undisputed technology and world market leader in the field of relays for energy and battery management.

Short ways belong to Gruner, only in this way also adjustments in the construction are quickly possible and only in this way new solutions are created, which offer real advantages to our customers. We have proven this: because our relays combine quality and innovation, economy and functionality, quantity flexibility and availability.



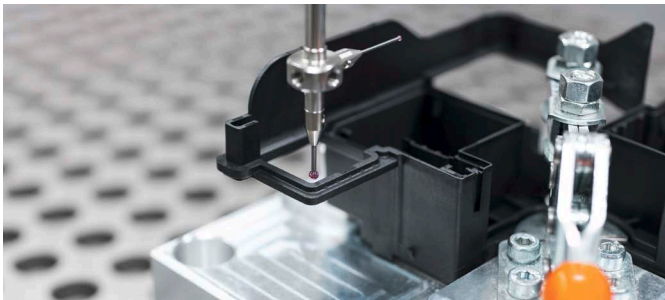


Type 704T

Type 853

Type 754

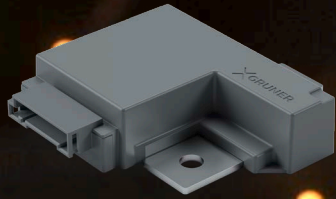
A PORTFOLIO WITH MANY OPTIONS



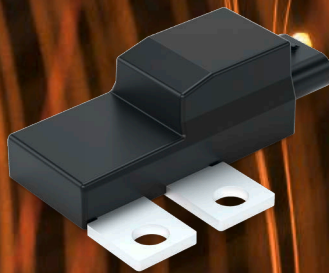
Gruner relays convince with high switching power at reduced levels of power consumption, maximum switching reliability, long service life and they are absolutely dependable.

For all the relays in our portfolio, we offer our customers the option of adapting the model individually. For a few types, there is a choice between monostable and latching (bistable) designs.

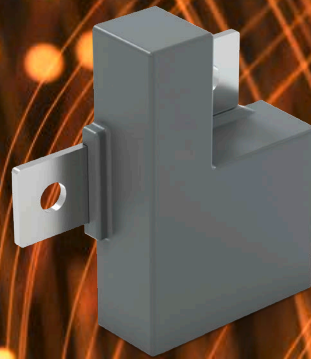
Our high level of vertically integrated production enables us to respond to a large number of specific customer requests within a short space of time, and to implement them. These modifications are discussed, drafted and implemented here in-house with our customers, within the space of just a few weeks.



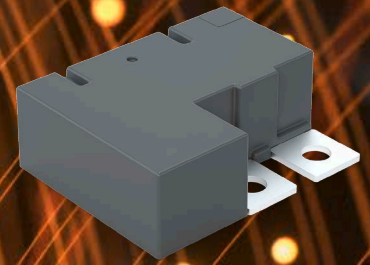
Type 761



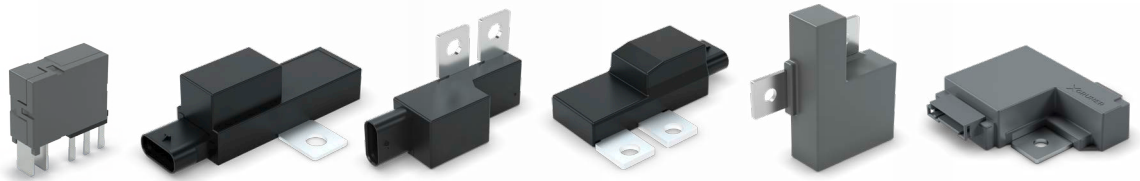
Type 753



Type 760

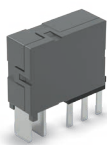


Type 852



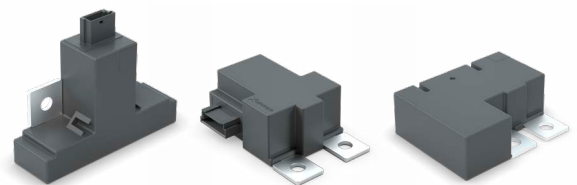
12 V

| Type | 704T | 750 | 754 | 753 | 760 | 761 |
|-------------------------------|-----------------|-------------------|-----------------|-------------------|-----------------|-----------------|
| Operating current range | 60 A | 250 A | 150 A | 250 A | 250 A | 250 A |
| Dimensions | 39 x 30 x 15 mm | 75.5 x 25 x 30 mm | 69 x 25 x 26 mm | 69 x 31.5 x 26 mm | 71 x 51 x 19 mm | 71 x 58 x 19 mm |
| Weight | 40 g | 85 g | 65 g | 90 g | 110 g | 120 g |
| Monostable version | | | | | | |
| Integrated temperature sensor | | | | | | . |



24 V

| Type | 704T |
|-------------------------|-----------------|
| Operating current range | 30 A |
| Dimensions | 39 x 30 x 15 mm |
| Weight | 40 g |
| Monostable version | |

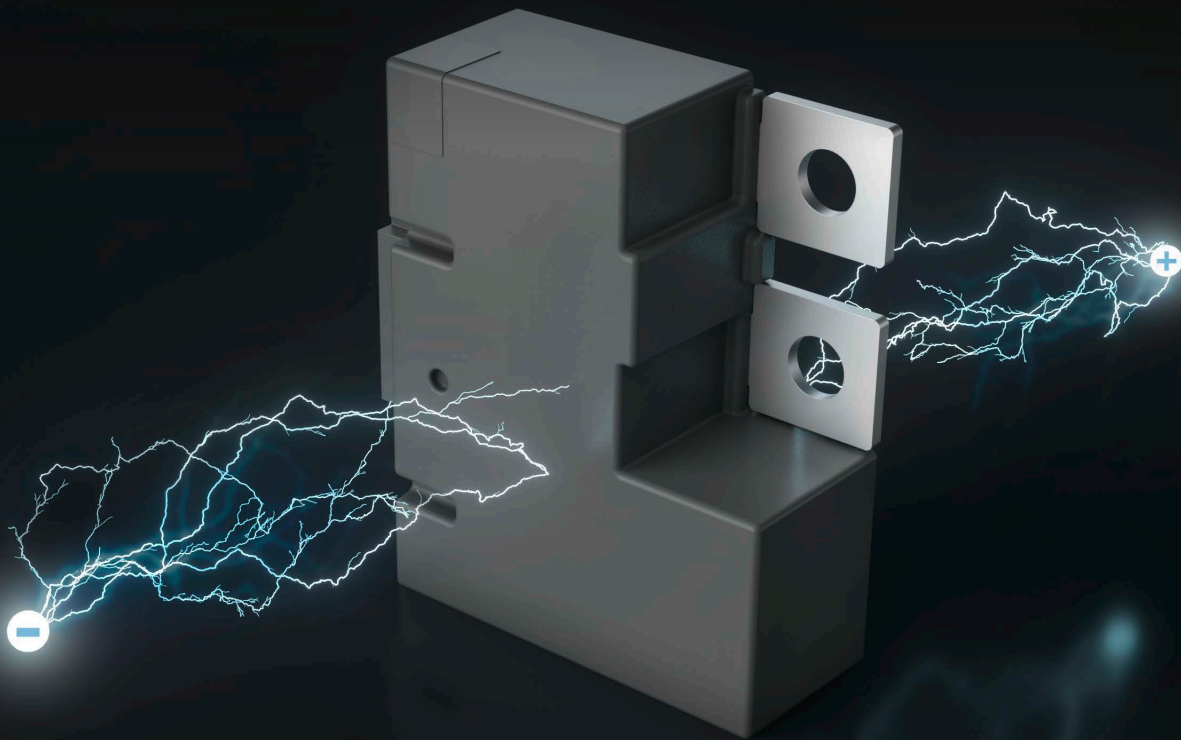


48 V

| Type | 850 | 853 | 852 |
|-------------------------------|-----------------|-----------------|-----------------|
| Operating current range | 100 A | 150 A | 200 A |
| Dimensions | 80 x 52 x 23 mm | 51 x 56 x 26 mm | 77 x 61 x 26 mm |
| Weight | 130 g | 135 g | 230 g |
| Monostable version | . | . | . |
| Integrated temperature sensor | | . | . |

GRUNER RELAYS FOR THE 48V VEHICLE CIRCUIT

Electrification without a high-voltage battery



The GRUNER 850 relay was the first relay for 48 V application introduced to the automotive sector.

With the 852 relay, the 2nd generation of 48V relays is now available. 48V technology is used primarily in mild-hybrid vehicles for the management of lithium ion batteries. Due to their higher voltage, many functions in vehicles can be electrified without the additional weight of an extra battery. This enables the size of the engine to be reduced, which cuts down on CO₂ emissions. 48V technology (MHEV) offers a cost benefit across the board: compared to plug-in-hybrids (PHEV) or fully electric vehicles (BEV), the system costs are relatively low.

The 852 relay is characterised by a higher level of power capacity. Here, a printed circuit board is also integrated with temperature measurement capability that can be interrogated near the contacts. There is also scope for integrating the relay control.

IDEAL FOR 48V BATTERY MANAGEMENT

- > 3x as economical as a high voltage device
- > High resistance against mechanical shocks
- > Short-circuit resistance up to 7,000 A
- > Space-saving flat and compact design
- > Efficient and easy to adapt

GRUNER AG, headquartered in Wehingen with around 1,500 employees, based in Germany, Tunisia, Serbia and India, is an exceptional manufacturer of actuators, relays and solenoids. Our system solutions for building management, the automotive industry and metering industry are in demand around the world, featuring compelling innovation and quality.

GRUNER AG

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