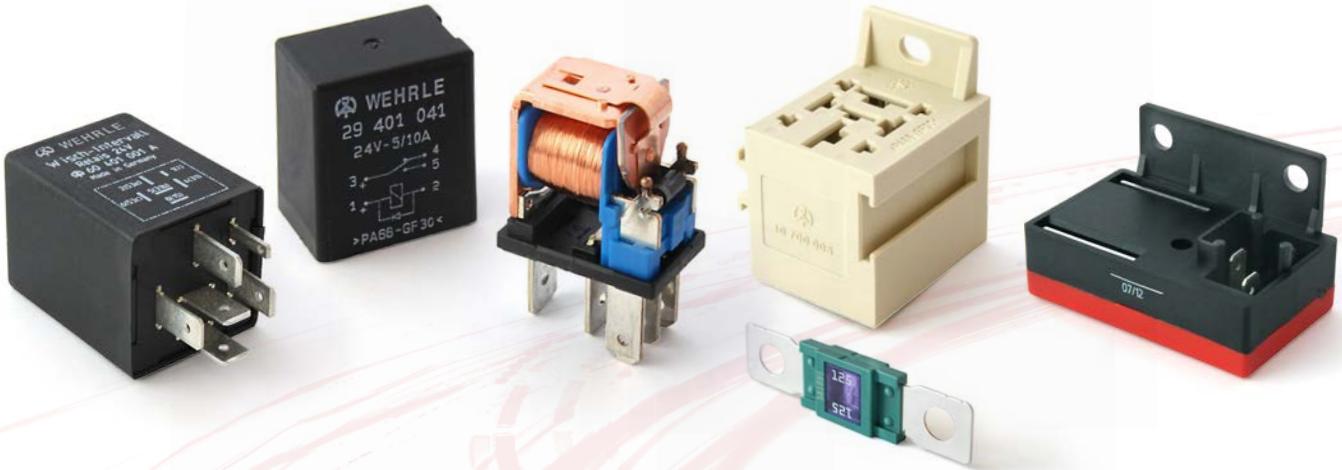


2017/18

Automotive Electronics



Content

Company	4
Switching Relays	10
Mini-Relays	12
Micro-Relays	15
Relays with Fuse	16
Switch-off Relays for Rear Fog Lamps	17
Twin Relays	18
Double Contact Relays	19
Double Relays	20
Stepping Relays	21
Solid State Relays	22
High Performance Relays 12V	23
High Performance Relays 12V	25
Heavy Duty Relays	26
High Performance Relays XXL	27
High Performance Relays XXL - Bistable	28
Flasher Units and LED Flasher Units	29
For Passenger Cars without/with Trailer	31
Special Items and Multi Purpose Flasher Units	32
Electronic Pulse Generators	34
Flasher Units for Trucks and Tractors without Trailer	35
Flasher Units for Trucks and Tractors with Trailer	36
LED Flasher Units	37
LED Light Link	40
Preheating Relays and control units	42
Timing Relays	49
Multitimer	51
Time Delay Relays	53
Special Modules	54
Electronic Timing Relays and Control Devices	55
Diode	61
Voltage Regulators for Alternators	62
DBMS Dual Batterie Monitoring System	63
Horns	64
Fans	67
Camera Systems	68
Fuses, Sockets and Accessories	72
Cross References	85
Product Overview	104



Independent Aftermarket		Independent After
Powertrain Systems	Vision Systems	Fuel Systems
4WD Systems	Outside	Fuel caps
Vacuum pumps	mirror Lighting	Radiator caps Oil
Power Steering pumps	Re ectors	caps
	Head lamps	Fuel tanks





market + Industry

Automotive Electronics

Relays
Flasher units
Glow plug control units
Camera systems

Offroad Competence Center

Offroad Components

Hutchinson wheels
Suspensions
Recovery
Differential lock
Hunting and travel equipment

PUCH G / PINZGAUER

Spare parts and accessories
Used vehicles
Workshop





We are the worldwide service and sales partner for spare parts and remanufacturer for all well-known car brands.

As aftermarket expert with a large automotive spare parts portfolio, S-TEC has established itself internationally and earned a reputation for reliable distribution and maintenance services to OEM standards.

We offer

- Powertrain Systems
- Vision Systems
- Fuel Systems
- Electronic Systems
- Offroad Components
- PUCH G / PINZGAUER Parts
- Service / Workshop

We set the agenda for the efficient mobility of the future with an uncompromising commitment to quality combined with perfection down to the last detail.

We believe that a modern business/management/company is not only determined by the quality of its products but also by its managerial culture that is the result of commitment and sense of responsibility of every single employee.

S-TEC was founded in 2006 in the middle of the Austrian Automobile Cluster and has been operating since then with different product groups and brands in different customer segments.

In the automotive world, brands such as BLAU, WEHRLE and PUCH have been known for unique flexibility, innovation and quality for decades.

These values are also seen as core competencies by the other divisions and brands within S-TEC.

Unsere Produkte Our Products



Powertrain Systems 4WD Systeme



S-TEC is recognized as one of the world's leading providers of all-wheel drives and has achieved an important competitive advantage, especially regarding the manufacturing and integration of complete systems. Tailored repair kits and components neatly round off the range.

Lovers of vintage and premium cars are always the first to appreciate an expert repair and maintenance service. S-TEC offers a professional all-wheel drive and manual transmission remanufacturing service for precious cars.



Powertrain Systems Vakuum pumps



S-TEC's vacuum pumps are designed and tested in cooperation with leading automotive OEMs. Based on decades of production experience the pumps have been tailored to the individual requirements of different automotive markets. Extensive tests demonstrate their superior performance, high reliability and durability.

Furthermore our vacuum pumps operate with maximum efficiency to achieve key commercial and technical requirements (e.g. fuel consumption, capacity, etc.)



Powertrain Systems Steering pumps



Power steering pumps can significantly contribute to the improvement of safety and steering behavior. S-TEC uses this potential and creates extraordinary results through continuous improvement and optimization. Our power steering pumps have been developed in cooperation with leading automotive manufacturers in order to tailor them to the specific customers' demands.

The combination of this branch-specific knowledge and years of experience, as well as state-of-the-art technologies, guarantee maximum efficiency and minimal abrasion.

Our Products



Vision Systems

Intelligent mirrors, Lighting and Reflections by S-TEC are synonymous with precision, fit and ease of installation. In operation, they provide safety and comfort.

At S-TEC, we marry advanced functionality to proven OEM standards with smart design.

Our understanding of visual aspects is by no means limited to the optimization of the field of vision, high resolution, brightness, reflections etc., it also encompasses the design of the products themselves.



Fuel Systems

Stringent safety and environmental standards for vehicles call for cap and reservoir systems with functionalities of an ever increasing complexity.

Striving to find solutions for the latest technological challenges, the S-TEC brand BLAU, a specialist for caps and reservoirs, does not solely rely on decades of experience. BLAU also engages in development activities and promotes the transfer of professional know-how: our R&D department maintains constant contact with international OEMs and exploits available synergies to build knowledge co-operatively.



WEHRLE Automotiv Electronics

Committed to quality. For S-TEC's brand WEHRLE, this is not just a phrase, it sums up the very essence of our corporate philosophy. For more than 60 years, every WEHRLE product, every process and every customer relationship has had to pass the test of quality.

The renowned expert for electronics components and systems, internationally established in the automotive industry, is leveraging its experience to deliver comprehensive and rapidly available state-of-the-art solutions in an environment where stringent quality control is relentlessly enforced.

Our Products



Offroad Competence Center Components

Real 4x4 lovers and their cars have only one rule: 100% performance in every situation and without compromise. MH4x4 allows also no compromise when we choose our partners and products. We want great reliability in every adventure our customers take. Our products have to keep their promises – we test it ourselves before it comes up to sale.

On top we provide customized service and support from our in-house experts, which have plenty years of offroad experience themselves.



Original quality



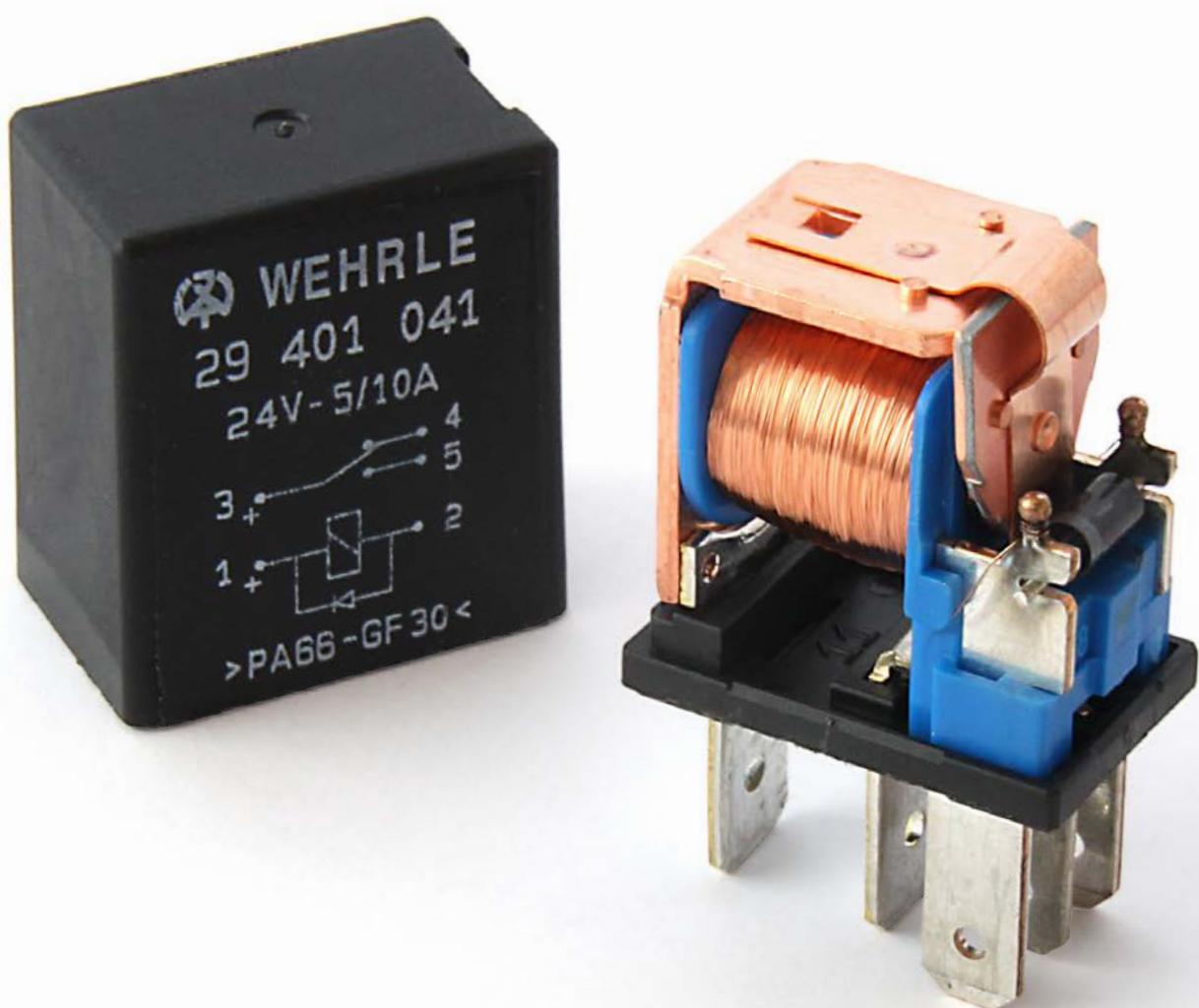
Offroad Competence Center PUCH G & PINZGAUER

Many years ago, the PUCH G & PINZGAUER cars were developed with passion and professionalism in Graz, but until today they are the loved icons for the offroad aficionados.

To protect them a very long life S-TEC established a unique offroad competence center with the exclusive knowledge of the former PUCH Customer Service. S-TEC is the number one sales representative for PUCH G & PINZGAUER spare parts worldwide with more than 30.000 parts in original quality.



Switching Relays



Switching Relays

WEHRLE direct-current-relays are used for the switching of high currents with small control-wire diameters and voltage drops. They are used for numerous applications. We would be happy to assist you in finding the correct relay.

Technical terms for relays:

1. Pull-in voltage: Lowest value of the energizing voltage, by which the relay picks up.
2. Drop-out voltage of a relay: Energizing voltage by which the relay reverts to stationary position.
3. Nominal voltage: Voltage for which the relay is designed.
4. Electrical service life: Number of operations with which the relay may be in service electrically.
5. Continuous current: the current which a relay can carry with a given temperature.
6. Contact consumption: Material loss of the contacts as a result of evaporation due to the influence of an electrical arc.
7. Contact clearance: Clearance between the open contacts, measured at its narrowest point.
8. Contact type:

|
} Closed: Make contact

|| Change over

|
} Open: Break contact

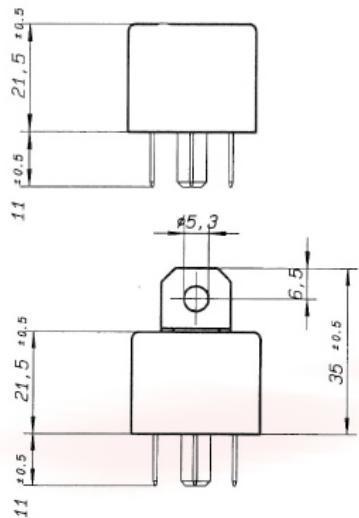
9. Contact voltage drop: Voltage drop between the relays connectors of the closed contact by a defined current power.
10. Contact power: Power through which the contacts touch.
11. Contact making material: WEHRLE offers relays in various contact making materials. Depending on the criteria, the following materials are available to WEHRLE: PdCu, AgNi, AgCuNi und AgSnO².
 - PdCu: Suited for circuit pulsed operation. For example: Flasher Unit usage. Drawback: high contact voltage drop.
 - AgNi/AgCuNi: Suited as a conduit for current and switch of ohmic and inductive loads for example: rear view mirror heating, motors and valves.
 - AgSnO²: Suited for switching of capacitive and inductive loads. For example: H4 lamps, motors, glow plugs. Drawback: fluctuating contact voltage drops, through oxide.
12. Break contact: Relays contact which is closed when the relay is in a resting position and open when it is in a working position.
13. Contact-load voltage: Is the voltage between the contacts.
14. Make contact: Relays contact where in a resting position the relay is open and in the working position the relay is closed.
15. Circuit of coil: Switching off results in induction voltage which may result in a disruption of the electrical system. In order to avoid or reduce this a circuit of the coil with a choice of resistor, diode or breakdown diode may be used. With this circuit, the switching time will be increased and as a result, the service life may be reduced. Therefore, it is necessary to examine the application.

Mini-Relays A



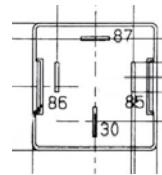
Dimensions

D1

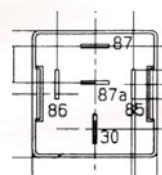


Terminal Configurations

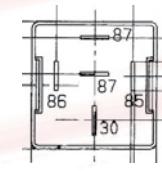
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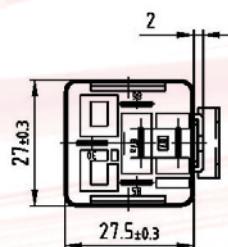
A2



A3

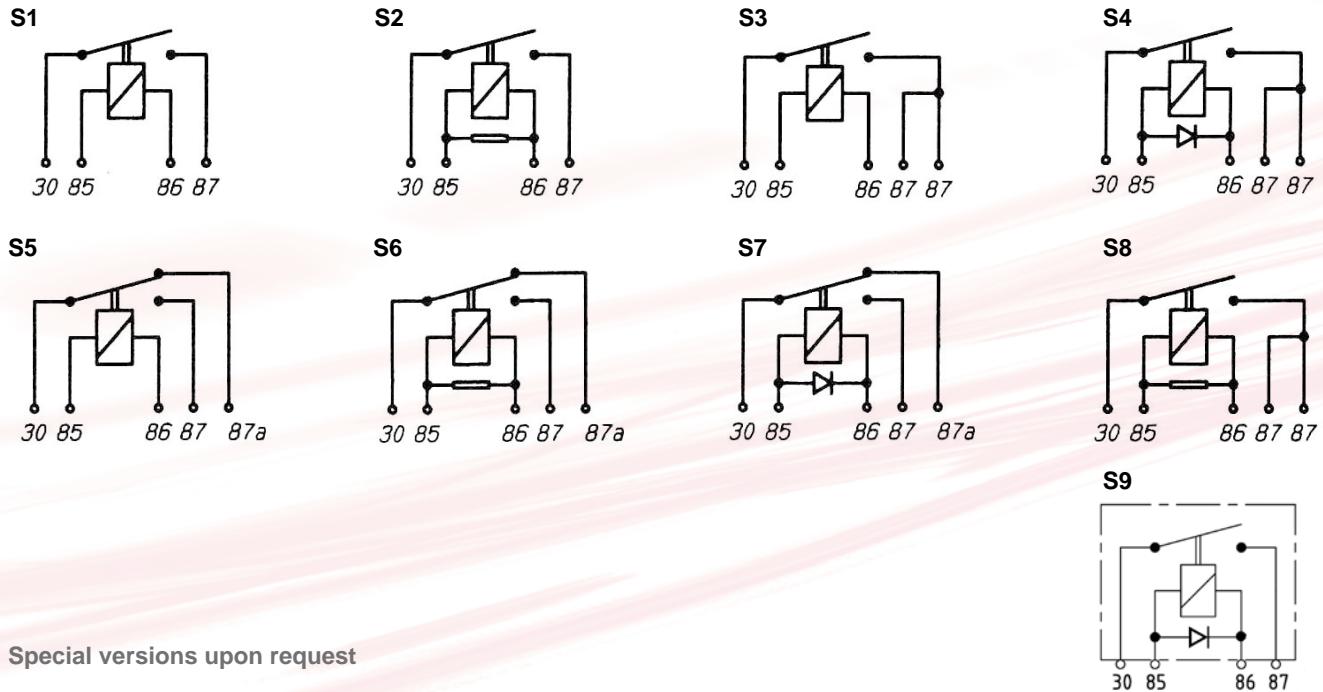


A4



Mini-Relays A

Circuit Diagrams



Special versions upon request

Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)	Terminal configuration	Circuit diagram	Dimension	Lasche	Component Diode/Widerst.	Type of protection
20 200 000A	Schließer/N.O.	12	30	A1	S1	D2	-	-	IP54
20 200 001A	Schließer/N.O.	12	30	A1	S2	D2	-	Widerst. /Resistor	IP54
20 200 100A	Schließer/N.O.	12	30	A1	S1	D2	■	-	IP54
20 207 100A	Schließer/N.O.	12	30	A4	S3	D2	■	-	IP54
20 207 101A	Schließer/N.O.	12	30	A3	S8	D1	■	Widerst. /Resistor	IP54
20 207 103A	Schließer/N.O.	12	30	A4	S4	D2	■	Diode	IP54
20 240 073	Schließer/N.O.	12	40	A1	S2	D1	-	Widerst. /Resistor	IP54
20 201 000A	Wechsler/C.O.	12	20/30	A2	S5	D2	-	-	IP54
20 201 001A	Wechsler/C.O.	12	20/30	A2	S6	D1	-	Widerst. /Resistor	IP54
20 201 100A	Wechsler/C.O.	12	20/30	A4	S5	D2	■	-	IP54
20 201 101	Wechsler/C.O.	12	20/30	A2	S6	D1	■	Widerst. /Resistor	IP54
20 201 103	Wechsler/C.O.	12	20/30	A2	S7	D1	■	Diode	IP54
13 003 663	Wechsler/C.O.	12	25	A2	S7	D1	■	Diode, verschweisst /welded	IP54
20 400 000A	Schließer/N.O.	24	20	A1	S1	D2	-	-	IP54
20 400 001A	Schließer/N.O.	24	20	A1	S2	D2	-	Widerst./Resistor	IP54
20 400 003A	Schließer/N.O.	24	20	A1	S9	D2	-	Diode	IP54
20 400 100A	Schließer/N.O.	24	20	A1	S1	D2	■	-	IP54
20 400 103A	Schließer/N.O.	24	20	A1	S9	D2	■	Diode	IP54
20 407 000A	Schließer/N.O.	24	20	A4	S3	D2	-	-	IP54
20 407 100A	Schließer/N.O.	24	20	A4	S3	D2	■	-	IP54
22 400 002B	Schließer/N.O.	24	20	A1	S2	D1	-	Widerst. vergossen/Resistor moulded	IP67
20 401 000A	Wechsler/C.O.	24	10/20	A2	S5	D2	-	-	IP54
20 401 003	Wechsler/C.O.	24	10/20	A2	S7	D1	-	Diode	IP54
20 401 100A	Wechsler/C.O.	24	10/20	A4	S5	D2	■	-	IP54
20 401 101A	Wechsler/C.O.	24	10/20	A1	S2	D2	■	Widerst. /Resistor	IP54
20 401 101	Wechsler/C.O.	24	10/20	A2	S6	D1	■	Widerst. /Resistor	IP54
20 401 103	Wechsler/C.O.	24	10/20	A2	S7	D1	■	Diode	IP54

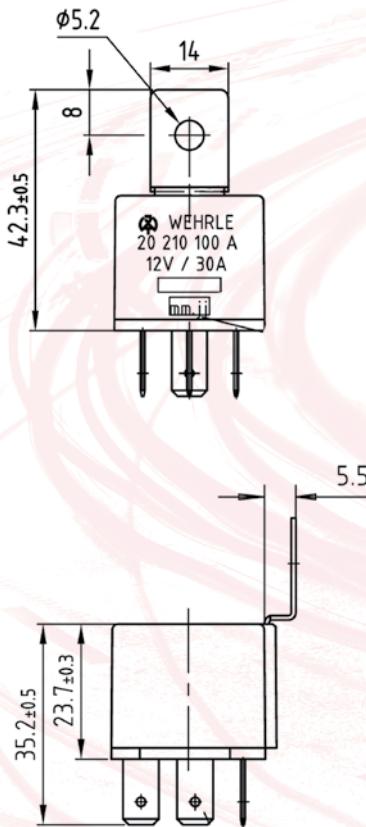
N.O. = Normally Open Contact Relay
C.O. = Change Over Contact Relay

30 85 86 87 87a
(3) (2) (1) (5) (4)

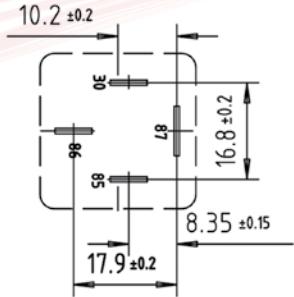
Mini-Relays B



Dimensions

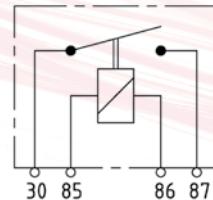


Terminal Configurations

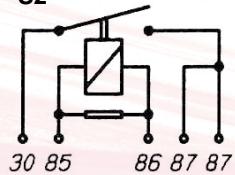


Circuit Diagram

S1



S2



Item No.	Contact type	Nominal voltage Volt (V)	Nennschaltstrom Ampere (A)	Circuit Diagram	Bracket	Component Diode / Resistor
20 210 100A	Schließer/N.O.	12	30	S1	■	-
20 210 101A	Schließer/N.O.	12	30	S2	■	Resistor
20 410 100A	Schließer/N.O.	24	20	S1	■	-

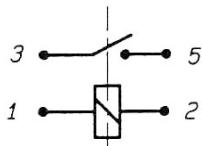
N.O. = Normally Open Contact Relay all Terminals 6.3 x 0.8mm

Micro-Relays

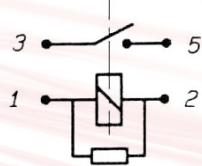


Circuit Diagram

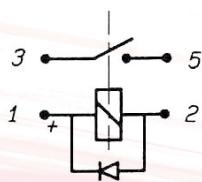
S1



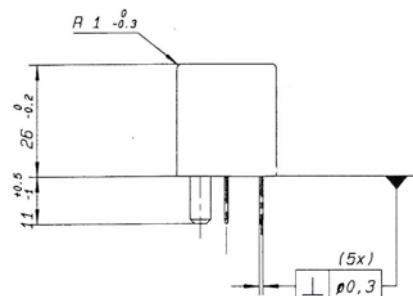
S2



S3

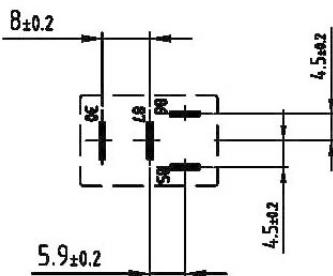


Dimensions

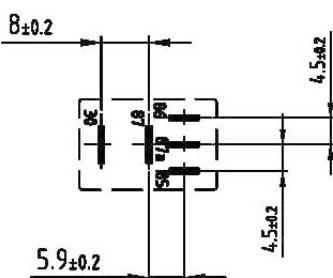


Terminal Configurations

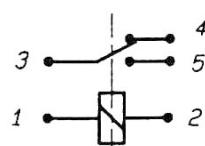
A1



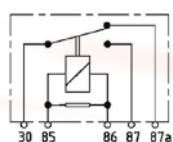
A2



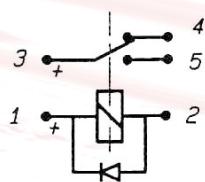
S4



S5



S6

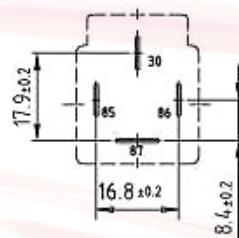
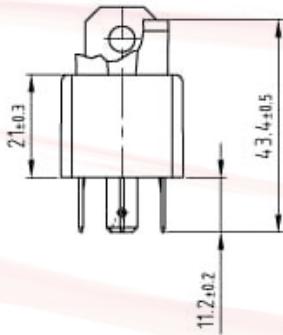
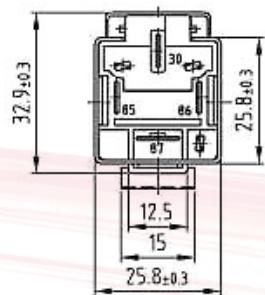
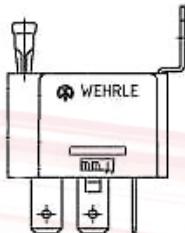


Item No.	Contact type	Nominal voltage Volt (V)	Nennschaltstrom Ampere (A)	Terminal Configuration	Circuit Diagram	Component Diode / Resistor
29 200 006A	Schließer/N.O.	12	25	A1	S1	-
29 200 045A	Schließer/N.O.	12	25	A1	S3	Diode
29 200 075A	Schließer/N.O.	12	25	A1	S2	Resistor
29 201 005	Wechsler/C.O.	12	10/20	A2	S4	-
29 201 045	Wechsler/C.O.	12	15/25	A2	S6	Diode
29 201 075A	Wechsler/C.O.	12	15/25	A2	S5	Resistor
13 405 101	Wechsler/C.O.	24	5/10	A2	S5	Resistor
29 401 000	Wechsler/C.O.	24	5/10	A2	S4	-
29 401 041	Wechsler/C.O.	24	5/10	A2	S6	Diode
13 404 101	Schließer/N.O.	24	10	A1	S2	Resistor

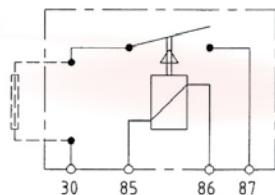
N.O. = Normally Open Contact Relay C.O. = Change Over Contact Relay
 1 2 3 4 5
 86 85 30 87a 87

Relays with Fuse

Terminal Configuration / Dimensions



Circuit Diagrams



Item No.	Contact type	Nominal voltage Volt (V)	Nennschaltstrom Ampere (A)
13 280 999	Relais m. Sicherung / Relays w. Fuse	12	30
20 200 102A	Relais m. Sicherung / Relays w. Fuse	12	15
13 480 201	Relais m. Sicherung / Relays w. Fuse	24	20

Alle Anschlüsse 6,3 x 0,8mm
All terminals 6,3 x 0,8mm

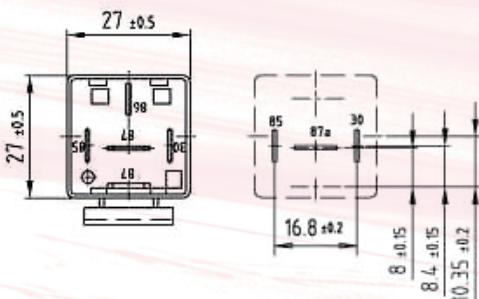
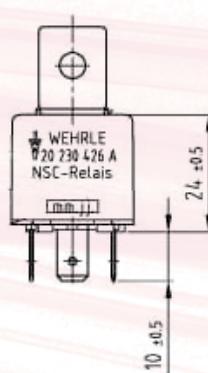
Switch-off Relays for Rear Fog Lamps



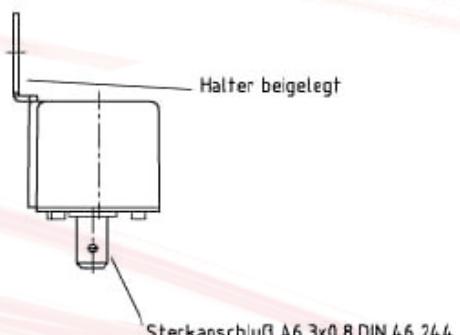
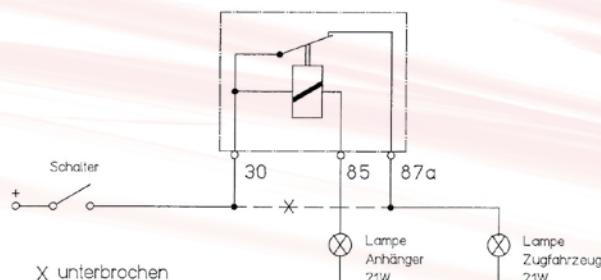
Current Relays

To switch off automatically one or two rear fog light lamps in case of a trailer being connected to the towing vehicle (fitted with rear fog lights). Fits all brands.

Dimensions



Circuit Diagrams



Item No.	Contact type	Nennspannung Volt (V)	Nominal current Amperes (A)
20 230 426B	Öffner/N.C.	12	Max. 2 x 21 Watt

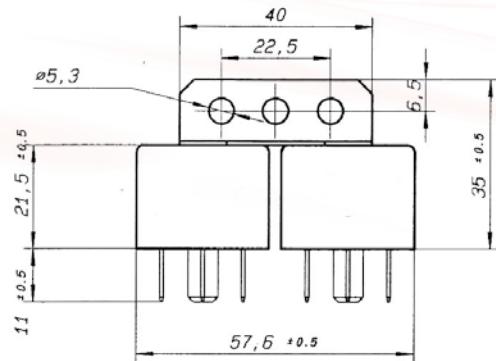
N.C. = Normally closed Contact Relay

All Terminals 6.3 x 0.8mm

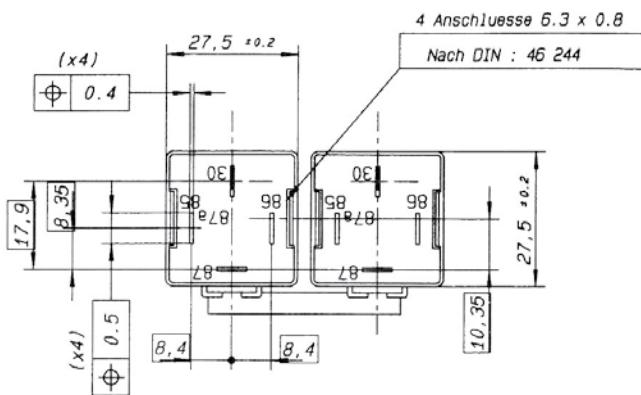
Twin Relays



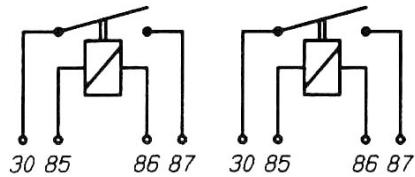
Dimensions



Terminal Configurations



Circuit Diagrams



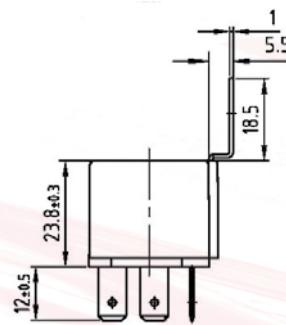
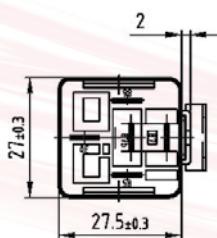
Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)
20 206 100A	Schließer/N.O.	12	2 x 30

N.O. = Normally Open Contact Relay All Terminals 6.3 x 0.8mm

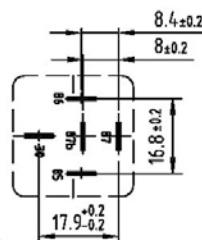
Double Contact Relays



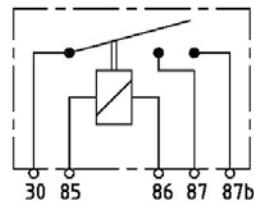
Dimensions



Terminal Configuration



Circuit Diagram



Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)
13 203 120A	Schließer / N.O.	12	2 x 20
13 403 115	Schließer / N.O.	24	2 x 15

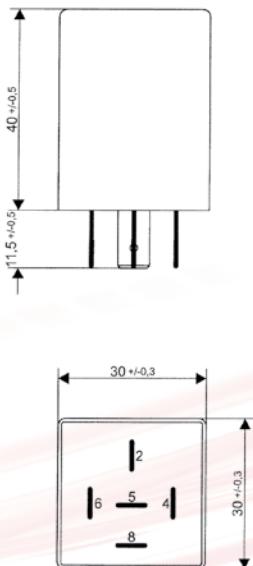
N.O. = Normally Open Contact Relay

All terminals 6.3 x 0.8mm

Double Relays

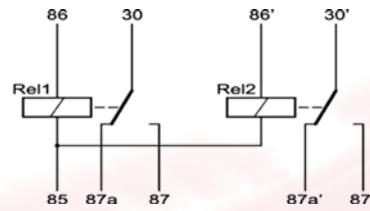


Dimensions

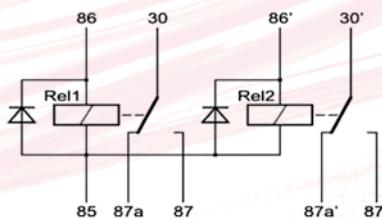


Circuit Diagrams

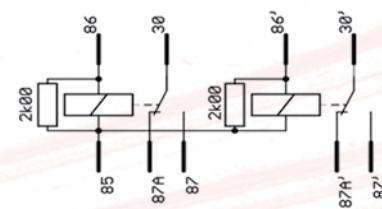
S1



S2



S3

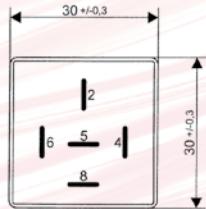
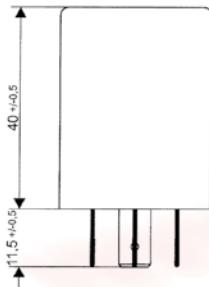


Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)	Circuit diagram	Component
13 251 000	2 x Wechsler/C.O.	12	2 x 10A	S1	-
13 251 100	2 x Wechsler/C.O.	12	2 x 10A	S2	m. Freilaufdiode / recovery diode
13 251 200	2 x Wechsler/C.O.	12	2 x 10A	S3	m. Dämpfungswiderst. / absor. resis.
13 451 000	2 x Wechsler/C.O.	24	2 x 10A	S1	-
13 451 100	2 x Wechsler/C.O.	24	2 x 10A	S2	m. Freilaufdiode / recovery diode
13 451 200	2 x Wechsler/C.O.	24	2 x 10A	S3	m. Dämpfungswiderst. / absor. resis.

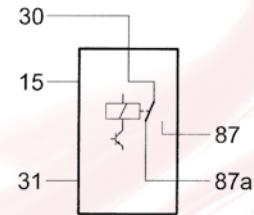
Stepping Relays



Dimensions



Circuit Diagram



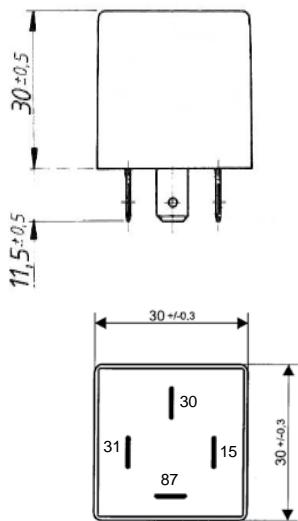
Stepping Relays are used everywhere where services are turned on or off by means of a switch. For example auxiliary headlight.

Item No.	Nominal voltage Volt (V)	Max. flow Ampere (A)	Triggering input
13 271 000	12	20A / 10A	positive triggering
13 272 000	12	20A / 10 A	negative triggering
13 471 000	24	20A / 10A	positive triggering
13 472 000	24	20A / 10 A	negative triggering

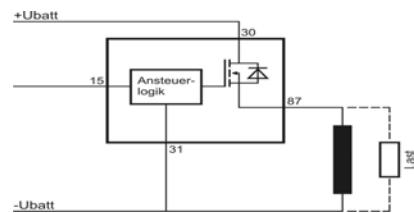
Solid State Relays



Dimensions



Circuit Diagram



Solid-State-Relays are used to trigger inductive loads. Pulse width modulation is possible. These relays make no switching noise, but are sensitive to vibration. Typical application: lamps, fans, blowers.

PWM = Pulsweiten Modulation

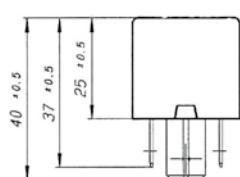
Item No.	Nominal voltage Volt (V)	Nominal current Ampere (A)
13 275 000	12	4A pos. HSD
13 275 100	12	10A pos. HSD
13 275 200	12	10A neg. HSD
13 475 000	24	4A neg. HSD
13 475 100	24	25A pos. HSD
13 475 200	24	25A neg. HSD

High Performance Relays 12V

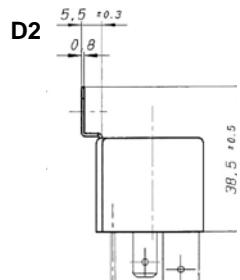


Dimensions

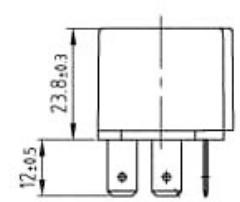
D1



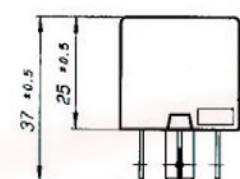
D2



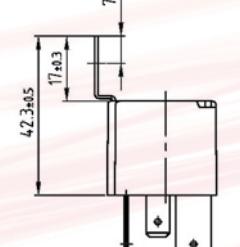
D3



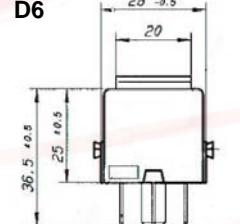
D4



D5

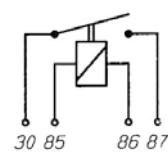


D6

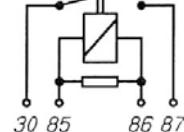


Circuit Diagrams

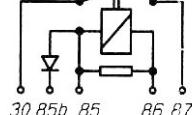
S1



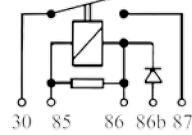
S2



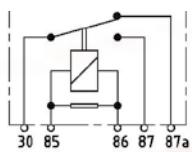
S3



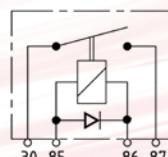
S4



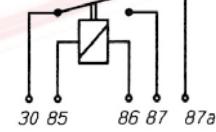
S5



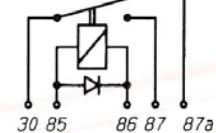
S6



S7

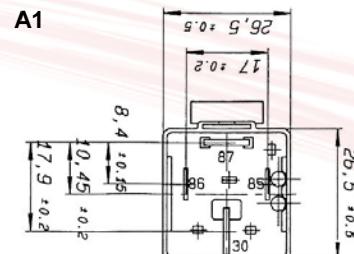


S8

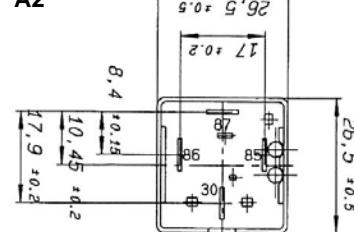


Terminal Configurations

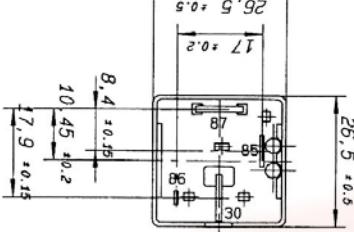
A1



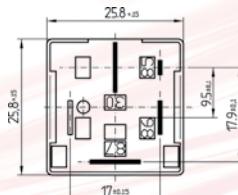
A2



A3



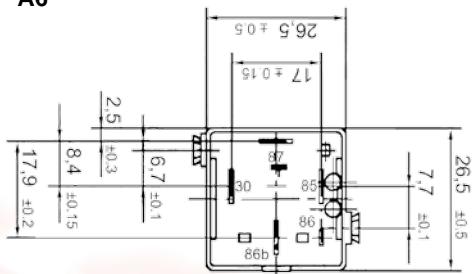
A5



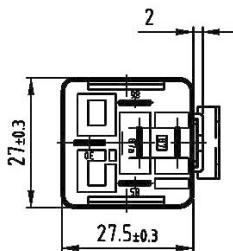
High Performance Relays 12V

Terminal Configurations

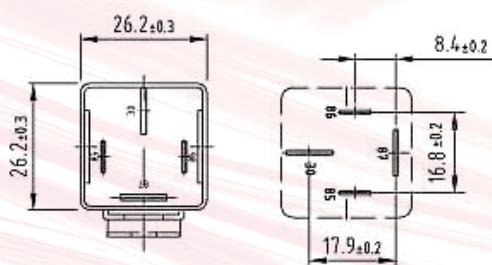
A6



A8



A7



Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)	Terminal config.	Circuit diagram	Dimension	Bracket	Component Diode / Resistor
13 201 140	Wechsler/C.O.	12	30/40	A8	S5	D3	■	Widerst./Resis.
13 201 150	Wechsler/C.O.	12	30/40	A8	S7	D3	■	
13 201 160	Wechsler/C.O.	12	30/40	A8	S8	D3	■	Diode
13 204 004	Schließer/N.O	12	20	A5	S2	D1	-	Resis.
22 200 011	Schließer/N.O	12	70	A1	S1	D1	-	-
22 200 117A	Schließer/N.O.	12	70	A7	S1	D5	■	-
22 200 119	Schließer/N.O	12	70	A7	S6	D5	■	Diode
22 200 030	Schließer/N.O	12	40	A2	S2	D6	-	Resis.
22 200 035	Schließer/N.O	12	30	A5	S2	D6	-	Resis.
22 200 106A	Schließer/N.O	12	40	A2	S1	D3	■	-
22 200 109A	Schließer/N.O	12	40	A2	S6	D3	■	Diode
22 204 013	Schließer/N.O	12	70	A1	S2	D1	-	Resis.
22 204 030A	Schließer/N.O	12	50	A7	S2	D1	-	Resis.
22 210 036	Schließer/N.O	12	40	A2	S2	D4	-	Resis.
22 210 037A	Schließer/N.O.	12	40	A3	S3	D4	-	Diode
22 210 531	Schließer/N.O	12	30	A6	S4	D6	-	Resis. + Diode

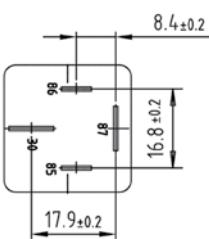
N.O. = Normally Open Contact Relay 1 2 3 4 5
C.O. = Change Over Contact Relay 86 85 30 87a 87

High Performance Relays 24V

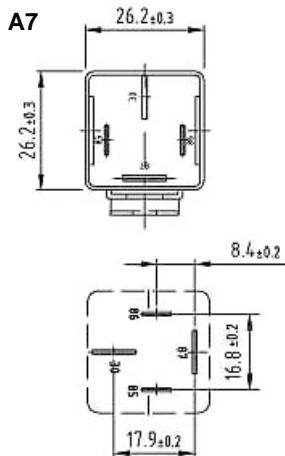


Terminal Configurations

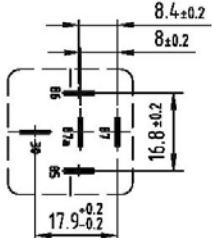
A4



A7

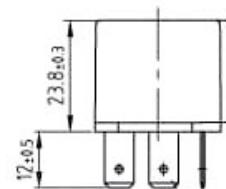


A8



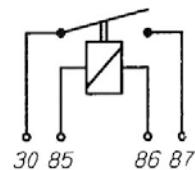
Dimensions

D3

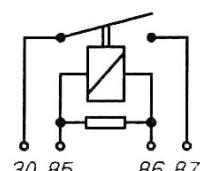


Circuit Diagrams

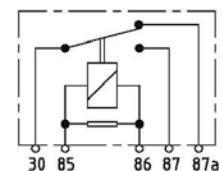
S1



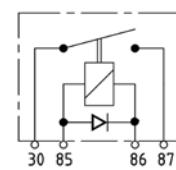
S2



S5



S6

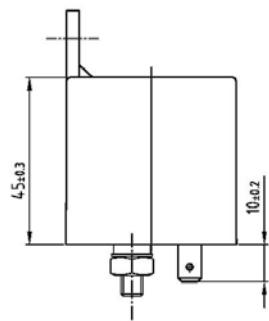


Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)	Terminal config.	Circuit diagram	Dimension	Bracket	Component Diode / Resistor
13 003 499	Schließer/N.O.	24	50	A4	S1	D5	■	-
13 401 130	Wechsler/C.O.	24	20/30	A8	S5	D3	■	Widerst./Resis.
22 400 117A	Schließer/N.O.	24	30	A7	S1	D5	■	-
22 400 118	Schließer/N.O.	24	30	A7	S2	D5	■	Widerst./Resis.
22 400 119	Schließer/N.O.	24	40	A7	S6	D5	■	Diode
22 400 700A	Schließer/N.O.	24	40	A7	S2	D5	■	Widerst./Resis.

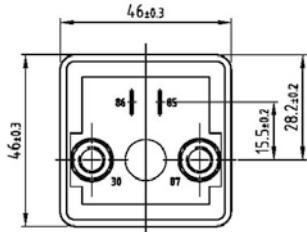
N.O. = Normally Open Contact Relay C.O. = Change Over Contact Relay
 1 2 3 4 5
 86 85 30 87a 87

Heavy Duty Relais

Dimensions

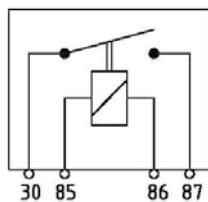


Terminal Configurations

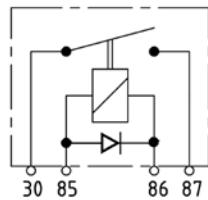


Circuit Diagrams

S1



S2



Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)	Circuit diagram	Component Diode / Resistor
13 250 200	Schließer / N.O.	12	200	S1	-
13 250 203	Schließer / N.O.	12	200	S2	Diode
13 450 100	Schließer / N.O.	24	100	S1	-

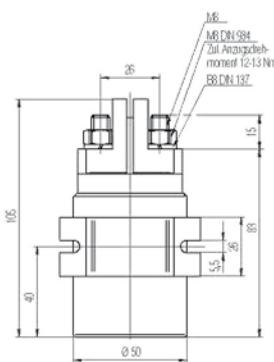
N.O. = Normally Open Contact Relay
C.O. = Change Over Contact Relay

High Performance Relays XXL

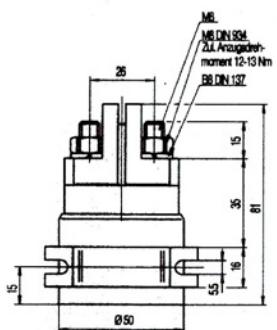


Dimensions

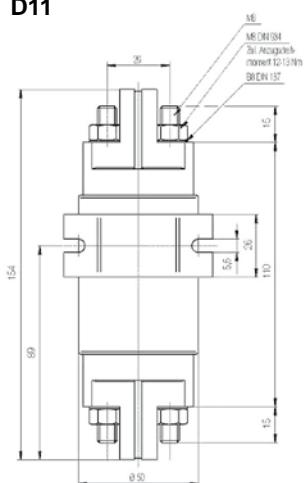
D10



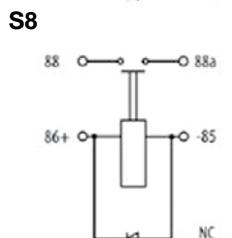
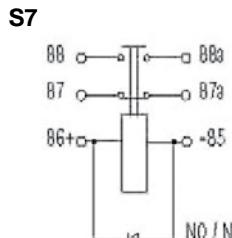
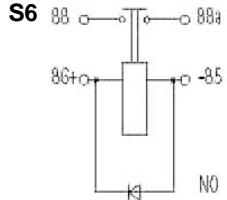
D9



D11

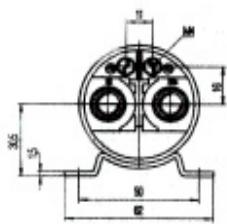


Circuit Diagrams

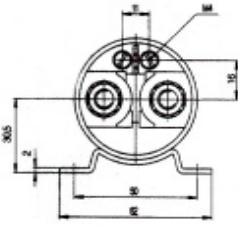


Terminal Configurations

A10



A11



Applications

- Battery switches
- Military engineering
- Forestry machines
- Construction equipment
- Floor conveyors
- Industrial Trucks
- Airport vehicles

Special customized versions upon request

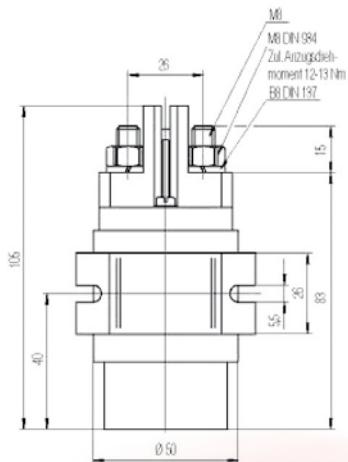
Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)	Terminal config.	Circuit diagram	Dimension	Bracket	Component Diode / Resistor
13 290 080	Schließer/N.O.	12	80	A10	S6	D9	■	-
13 290 100	Schließer/N.O.	12	100	A10	S6	D10	■	-
13 290 200	Schließer/N.O.	12	200	A10	S6	D10	■	-
13 290 300	Schließer/N.O.	12	300	A10	S6	D10	■	-
13 291 100	Wechsler/C.O.	12	100	A11	S7	D11	■	-
13 291 200	Wechsler/C.O.	12	200	A11	S7	D11	■	-
13 490 080	Schließer/N.O.	24	80	A10	S6	D10	■	-
13 490 100	Schließer/N.O.	24	100	A10	S6	D10	■	-
13 490 200	Schließer/N.O.	24	200	A10	S6	D10	■	-
13 490 300	Schließer/N.O.	24	300	A10	S6	D10	■	-
13 491 100	Wechsler/C.O.	24	100	A11	S7	D11	■	-
13 491 200	Wechsler/C.O.	24	200	A11	S7	D11	■	-
13 493 100	Öffner/N.C.	24	100	A10	S8	D10	■	-
13 494 200	Schließer/N.O.	24	200	A10	S6	D10	■	2-spulig

N.O. = Normally Open Contact Relay 1 2 3 4 5
C.O. = Change Over Contact Relay 86 85 30 87a 87

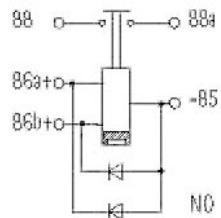
High Performance Relays XXL - Bistable



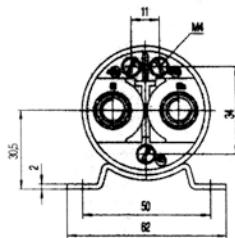
Dimensions



Circuit Diagram



Terminal Configuration



Additional models upon request

Item No.	Contact type	Nominal voltage Volt (V)	Nominal current Ampere (A)	Bracket	Component Diode / Resistor
13 292 100	Schließer/N.O.	12	100	X	Diode
13 292 200	Schließer/N.O.	12	200	X	Diode
13 292 300	Schließer/N.O.	12	300	X	Diode
13 492 100	Schließer/N.O.	24	100	X	Diode
13 492 200	Schließer/N.O.	24	200	X	Diode
13 492 300	Schließer/N.O.	24	300	X	Diode

N.O. = Normally Open Contact Relay 1 2 3 4 5
C.O. = Change Over Contact Relay 86 85 30 87a 87

Flasher Units and LED Flasher Units



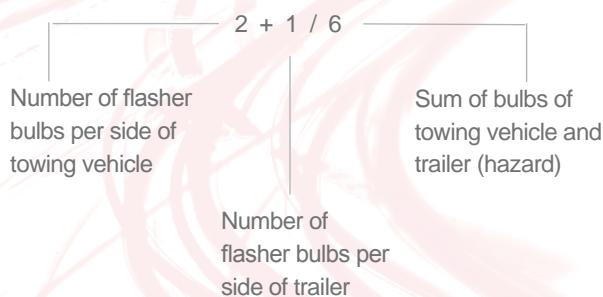
Flasher Units

Flasher Units with bulb analysis:

Failure of a flasher bulb can be indicated by

- a) increase of flashing frequency
- b) control light

Sample for loads:



If a passenger car is subsequently converted to trailer operation, the flashing system has to be enlarged accordingly.

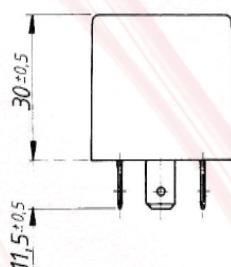
Pulse Generator:

Does not analyse and evaluate the lamp load and can be operated up to 170 watt (8 bulbs). However, their use is prohibited on private cars and commercial vehicles in many countries (usage for construction vehicles, signal lights, tailboards, cargo boom etc.).

Dimensions

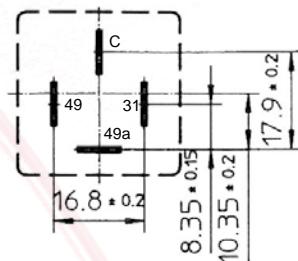


G1



Terminal Configurations

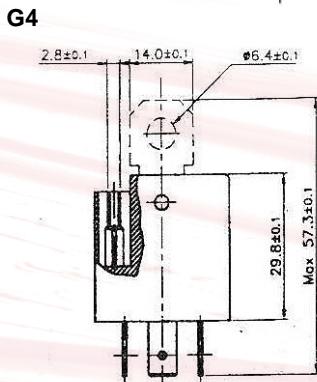
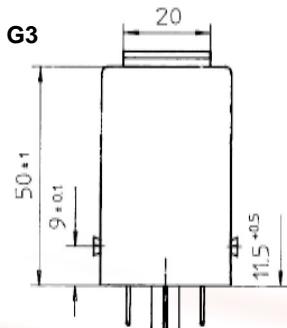
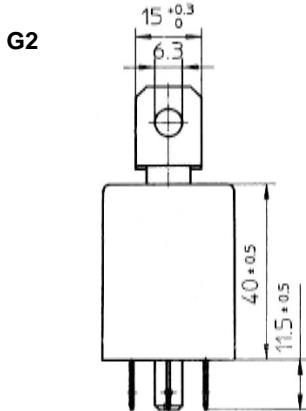
A1



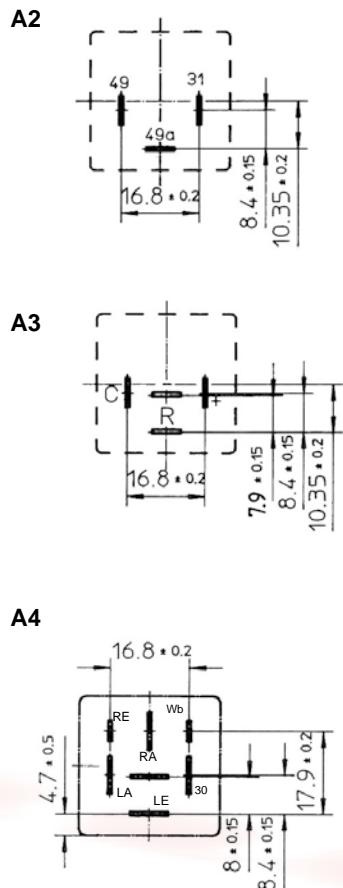
Flasher Units for Passenger Cars without/with Trailer



Dimensions



Terminal Configurations



Item No.	Nominal voltage Volt (V)	Load	Terminal configuration	Housing	Remarks
54 201 101	12	2/4 x 21 Watt	A2	G2	Lasche/Bracket
54 201 102	12	2/4 x 21 Watt	A1	G2	Lasche/Bracket
54 201 136	12	2/4 x 21 Watt	A3	G2	Lasche/Bracket, SAE
54 225 003	12	2/4 x 21 Watt	A4	G3	-
54 237 001	12	2/4 x 21 Watt	A2	G1	30 mm Höhe/height
54 237 012	12	2/4 x 21 Watt	A2	G1	30 mm Höhe/height
13 201 103	12	2+1/6 x 21 Watt	A1	G4	mit Anhängerbetrieb/with Trailer

Special Items and Multi Purpose Flasher Units

Terminal Configurations

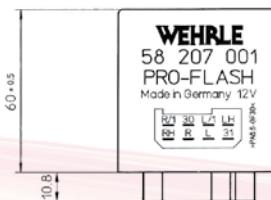
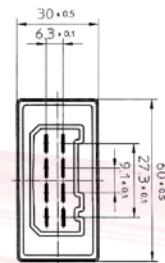
Housings

58 207 001

Trailer Flash Control 12V

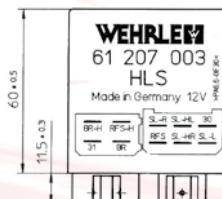
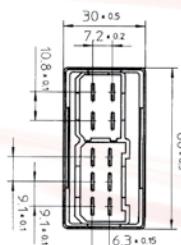


In case of failure of a flasher lamp (with or without trailer) the flasher blinks with a higher frequency.



61 207 003

Trailer Lamp Control 12V

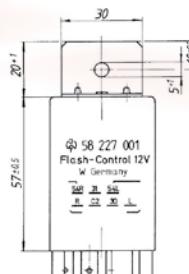
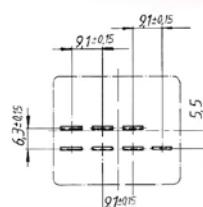


58 227 001

Flash Control 12V
2 x 21 Watt



The control device disconnects the flashlights of a trailer from the car's electrical system. It controls the trailer flash lights. The electrical circuit of the car will be burdened only by control currents. The original flasher remains in the car.



Special Items and Multi Purpose Flasher Units



13 010 201
Electronic Flasher Unit 12V

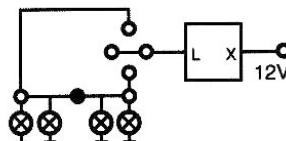
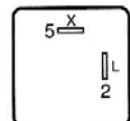
This flasher unit is without polarity and has two pins. It can be used as an immediate solution for flasher failure in all cars.



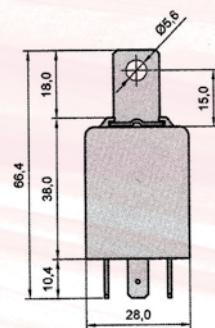
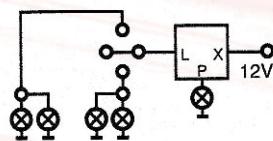
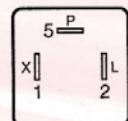
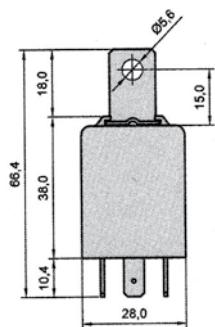
13 010 301
Electronic Flasher unit 12V

This flasher unit is without polarity and has three pins. It can be used as an immediate solution for flasher failure in all cars.

Terminal Configurations



Housings

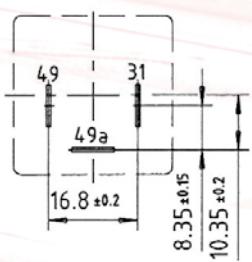


Electronic Pulse Generators



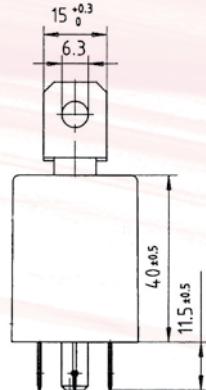
Terminal Configurations

A1

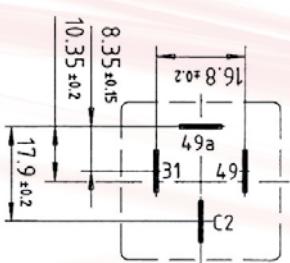


Housings

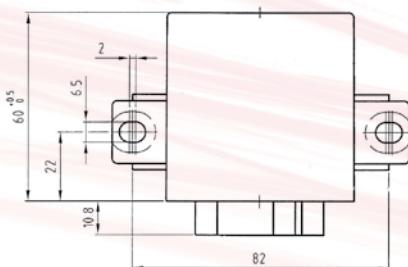
G1



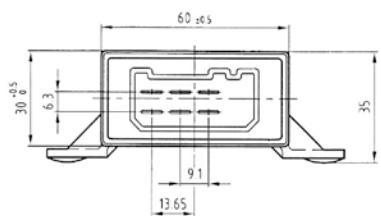
A2



G2



A3



Item No.	Nominal voltage Volt (V)	Load	Terminal configuration	Housing	Remarks
53 007 006A	12 + 24	170 Watt max.	A3	G2	Bracket
53 201 101	12	170 Watt max.	A1	G1	Bracket
53 201 102	12	170 Watt max.	A2	G1	Bracket
53 401 101	24	170 Watt max.	A1	G1	Bracket
53 401 102	24	170 Watt max.	A2	G1	Bracket

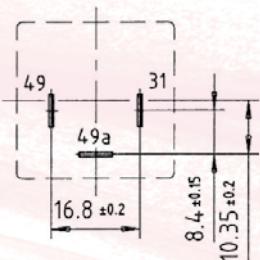
Flasher Units for Trucks and Tractors without Trailer

Terminal Configurations

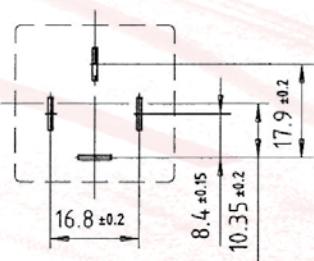
Housings



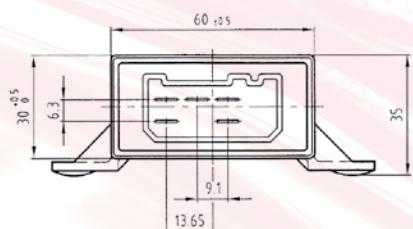
A1



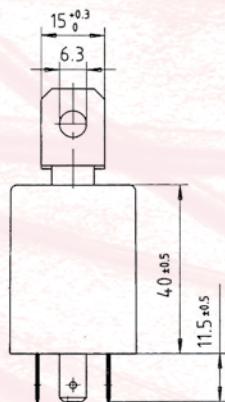
A2



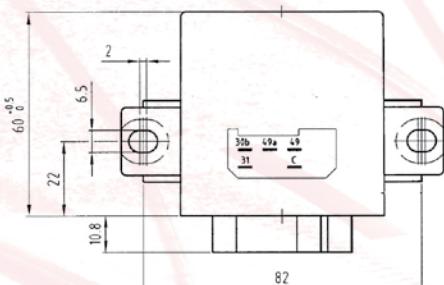
A3



G1



G2



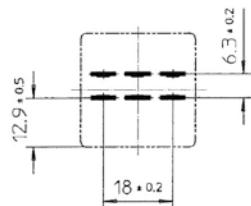
Item No.	Nominal voltage Volt (V)	Load	Terminal config.	Housing.	Remarks
54 401 101	24	2/4 x 21 Watt	A1	G1	Lasche/Bracket
54 401 102	24	2/4 x 21 Watt	A2	G1	Lasche/Bracket
54 407 009	24	4/8 x 21 Watt	A3	G2	-

Flasher Units for Trucks and Tractors with Trailer

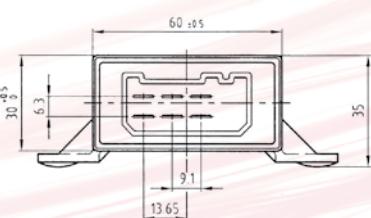


Terminal Configurations

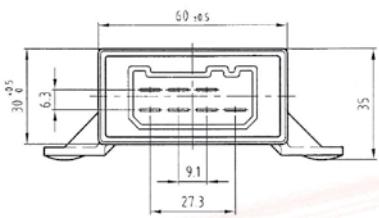
A1



A2



A3

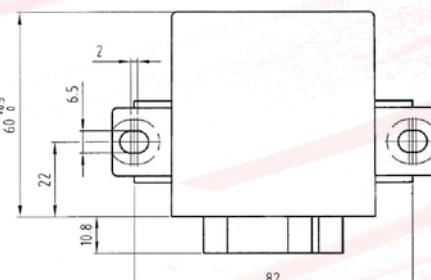


Housings

G1



G2



Item No.	Nominal voltage Volt (V)	Load	Terminal configuration	Housing	Remarks
54 229 002A	12	2+1+1/8 x 21 Watt	A1	G1	vergossen / sealed
54 407 006	24	2 + 1/6 x 21 Watt	A2	G2	-
54 407 008	24	3 + 1/8 x 21 Watt	A2	G2	-
54 407 010A	24	2+1+1/8 x 21 Watt	A3	G2	LED Vorbereitung LED prepared

LED Flasher Units

Our LED flasher unit is the intelligent solution to the problem of "Lamp Failure Warning" with LED direction indicator in a circuit made by LED and conventional bulb lamps.

For legal requirements, the flashing speed of the direction indicator must increase when an LED light or a bulb fails in the indicator circuit.

It is an universal solution as it solves "Lamp Failure Warning" troubles with every LED cluster between 1W and 8W.

Combined with our LED Flasher unit, it allows a reliable detection of LED cluster failure and prevents irregular or spurious signals on the dashboard warning light.

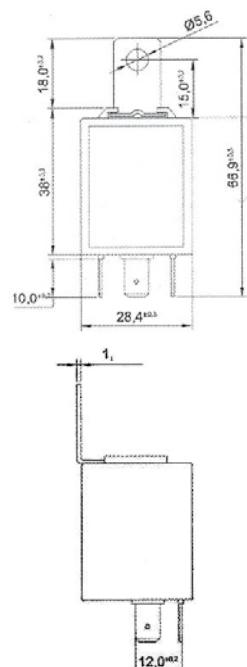
Our LED unit does not produce heat and can be fitted anywhere.



LED Flasher Units

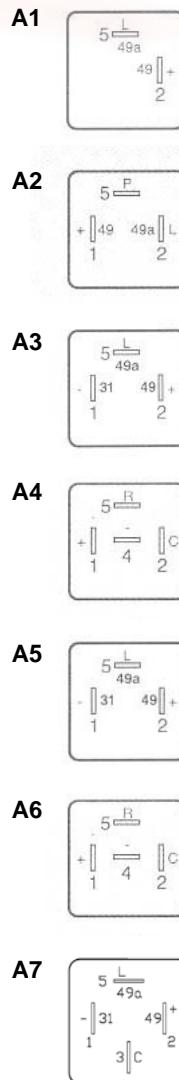


Dimensions



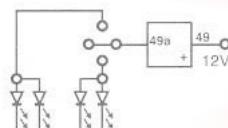
More and more LED Lamps are being used in the automobile industry. Traditional Flasher Units normally register a bulb failure due to the low wattage. Our LED-Flasher are available with and without failure detection.

Terminal Configurations

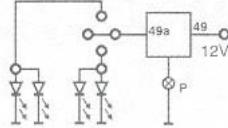


Circuit Diagrams

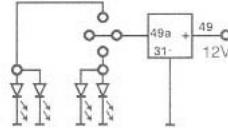
S1



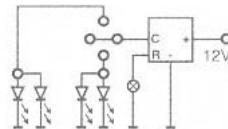
S2



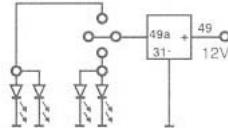
S3



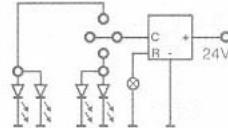
S4



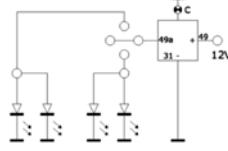
S5



S6



S7

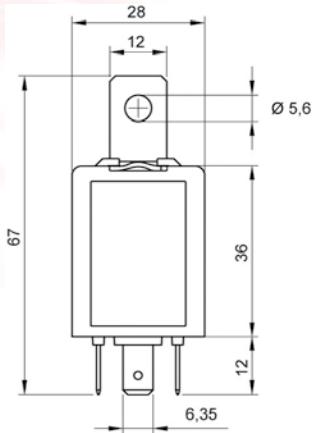


Item No.	No. of pins	Watt	Volt	Circuit diagram	Terminal config.	failure detection
13 100 102	2	0-30W	12	S1	A1	-
13 100 103	3	0-30W	12	S2	A2	-
13 200 103	3	0-30W	12	S3	A3	-
13 200 104	4	0-30W	12	S4	A4	-
13 200 105	4	0,1-10W	12	S7	A7	■*
13 200 203	3	0-40W	24	S5	A5	-
13 200 204	4	0-40W	24	S6	A6	-

* Failure detection must be programmed for the LED cluster used in a specific circuit

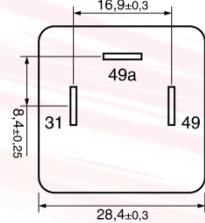
LED Flasher Units

Dimension



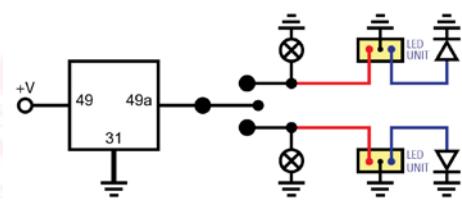
Terminal Configurations

A1

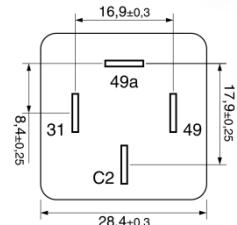


Circuit Diagrams

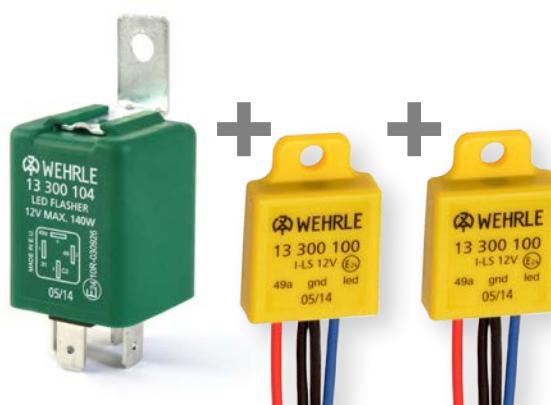
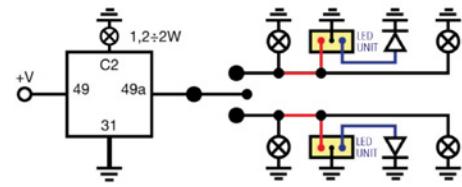
S1



A2



S2

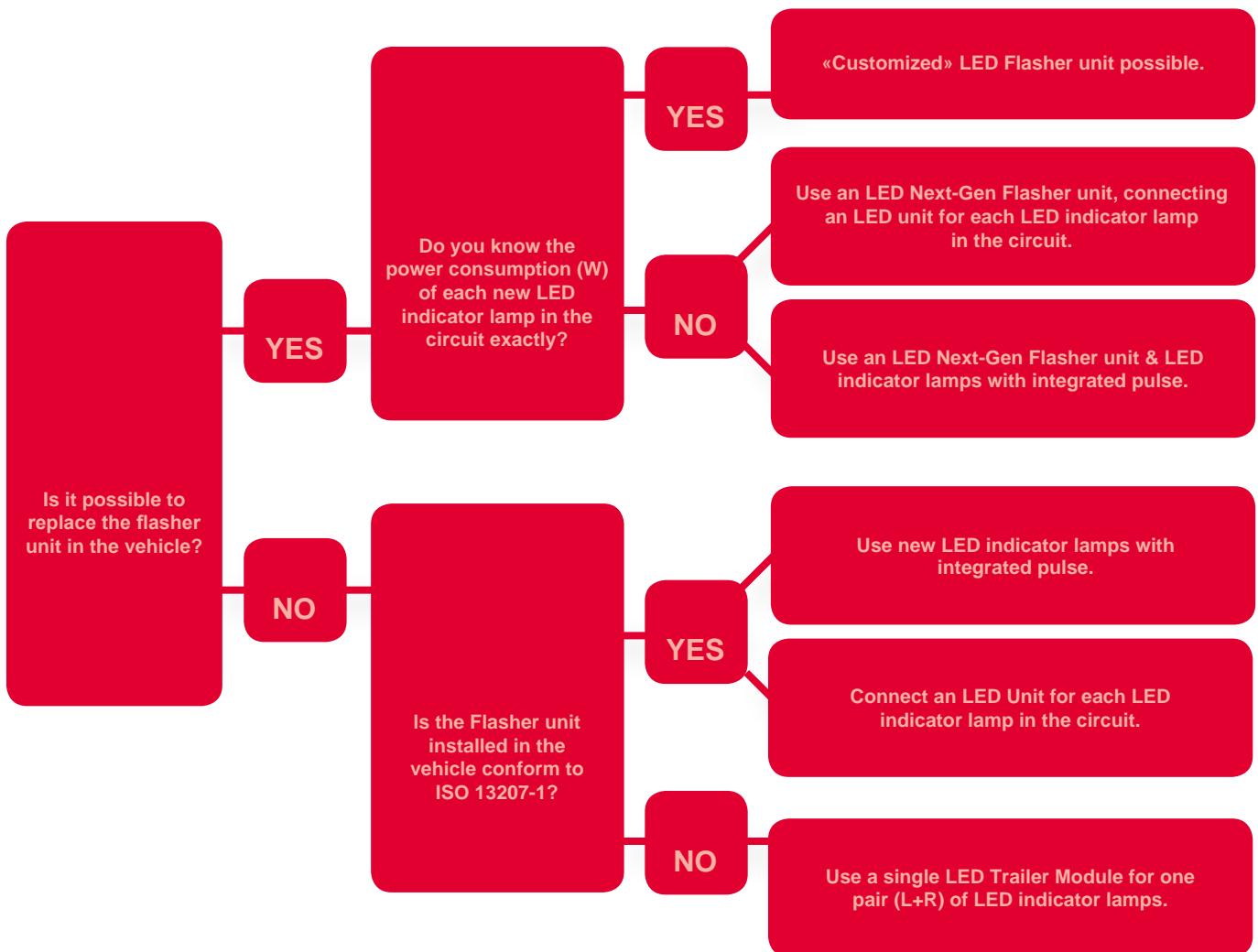


BASIC KIT

1 Flasher unit + 2 LED units

Item No.	No. of pins	Watt	Volt	Circuit diagram	Terminal config.
13 300 103	3	max 90 Watt	12	S1	A1
13 300 203	3	max 90 Watt	24	S1	A1
13 300 104	4	max 140 Watt	12	S2	A2
13 300 204	4	max 140 Watt	24	S2	A2
13 300 100 (LED Unit)			12		
13 300 200 (LED Unit)			24		

LED Light Link

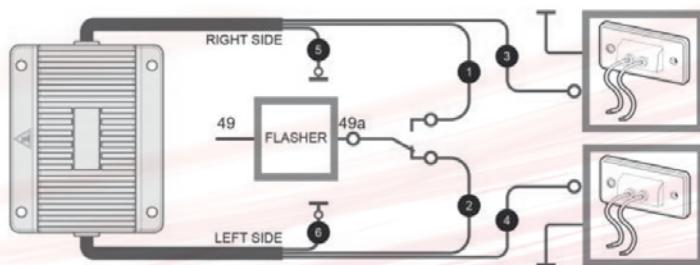


Regulation ECE R48 for failure warning in direction indicator circuit is mandatory, any resistors in LED indicator lamps are illegal.

Failure detection conventional flasher unit: The conventional flasher unit checks constantly the power draw for whole direction indicator circuit and detects a failure when the power drops below a defined threshold, LED indicators may create irregular flashing frequency and false failure signals.

ISO 13207-1 standardises the non-failure pulse generated by new LED indicator lamps. A current pulse for the direction indicator input at a defined point in time is produced. With each direction indicator pulse, the upstream flasher relay in the vehicle electric system requests the pulse after 100 ms – for at least 20 ms. If components or LEDs of the direction indicator function are defective, this is detected by the electronics: No pulse is sent. Therefore, the driver is definitely informed of the indicator failure.

LED Light Link



Item No.	Volt	Dimension	Techn. Spec.
58 207 010	12V	102x82x27mm	Connection Cables 1,5m, IP67, according to ISO 13207-1 Standard, Failure detection according to ECE R48, Reverse polarity protection, Short circuit protection
58 407 010	24V	102x82x27mm	Connection Cables 1,5m, IP67, according to ISO 13207-1 Standard, Failure detection according to ECE R48, Reverse polarity protection, Short circuit protection

Preheating Relays and control units



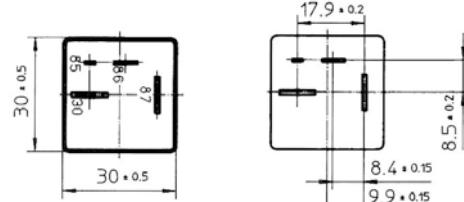
The engine can be started when a warning light gives the signal that the correct engine temperature has been reached. For the applied glow or flame plugs WEHRLE manufactures the appropriate control devices. The duration of the preheating period depends on the engine's temperature. The start readiness of the engine is signalled by a preglow lamp. Versions with post-heating to reduce the cold start emissions and immediate start devices are available.

Preheating Relays and control units

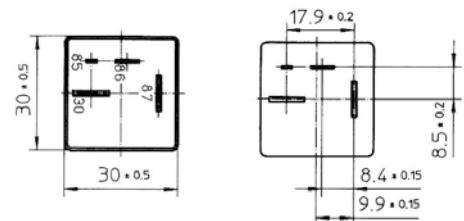


50 237 009
Preheating Relay 12V

Terminal Configurations

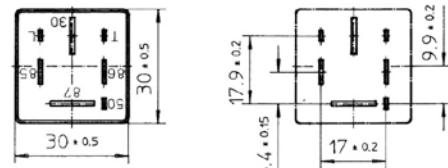


50 237 010
Preheating Relay 12V



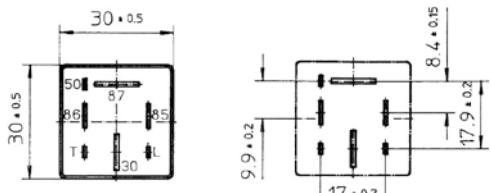
51 233 001
Preheating Relay 12V

For Vehicles with
short postheating period.



51 233 011
Preheating Relay 12V

For Vehicles with
short postheating period.

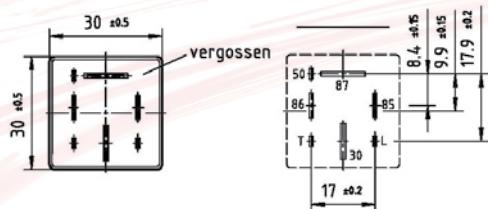


Preheating Relays and control units



51 233 008A
Automatic-Preheating Relay 12V

Terminal Configurations

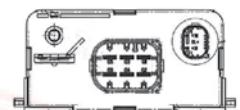
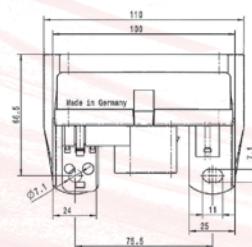


51 216 003A
Automatic-Preheating Relay 12V



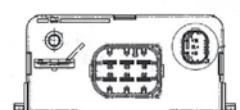
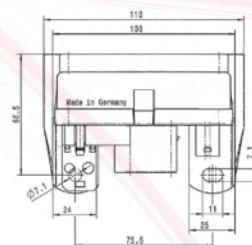
51 799 029A
Glow Plug Control Unit 12V

Suitable for: Mercedes 5- and 6-cylinder diesel engines 1996-2009



51 799 030A
Glow Plug Control Unit 12V

Suitable for: Mercedes 4-cylinder diesel engines 1995-2014



Preheating Relays and control units

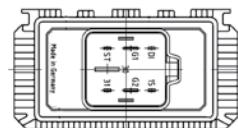
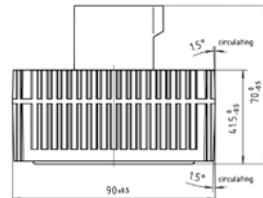
Terminal Configurations

51 799 014



Glow Plug Control Unit 12V

Suitable for:
Opel 4-cylinder diesel engines 1999-2014

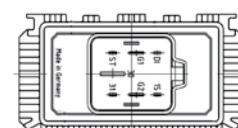
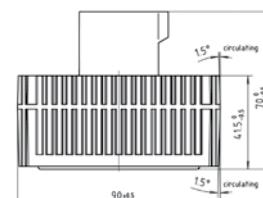


51 799 018



Automatic-Preheating Relay 12V

Suitable for:
Opel 4-cylinder diesel engines 1996-2014

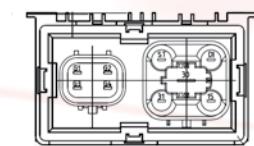
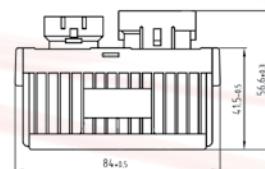


51 799 044



Glow Plug Control Unit 12V

Suitable for:
Opel 4-cylinder 1.3l diesel engines 2006-2014

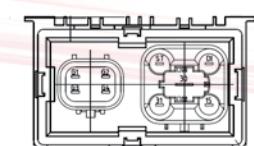


51 799 045



Glow Plug Control Unit 12V

Suitable for:
Opel 4-cylinder 1.7l diesel engines 2009-2014



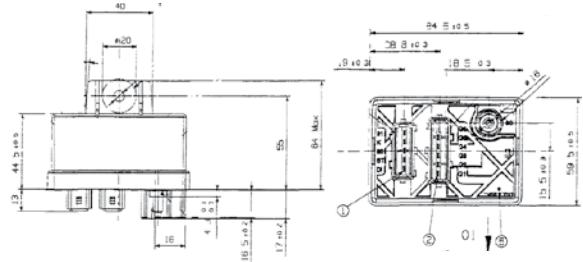
Terminal Configurations



51 299 012D

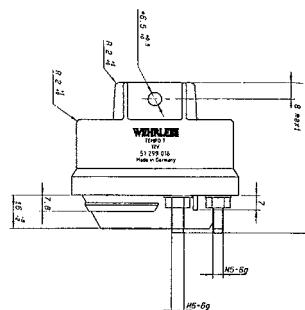
Glow Plug Control Unit 12V

Suitable for:
Fiat, Alfa Romeo and Lancia diesel engines



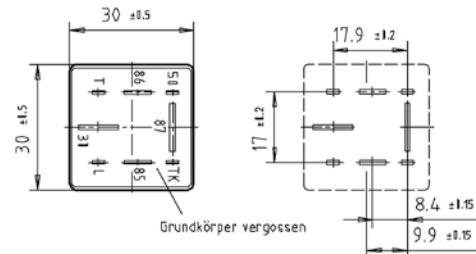
51 299 016

Glow Control Unit 12V - Tempo 7



51 751 001

Glow Control Unit 12V



51 951 001 Glow
Control Unit 24V



51 252 002

Glow Plug Control Unit 12V

Suitable for: Peugeot/
Citroen/Volvo



51 799 056B

Glow Plug Control Unit 12V

Suitable for:
Mercedes

Preheating Relays and control units



51 799 070D

Glow Plug Control Unit 12V

Suitable for:
Mercedes



51 799 026

Glow Plug Control Unit 12V

Suitable for: VW/Audi/
Seat/Skoda



51 799 060

Glow Plug Control Unit 12V

Suitable for: VW/Audi/
Seat/Skoda



51 799 080A

Glow Plug Control Unit 12V

Suitable for: Peugeot/
Citroen/Volvo



51 799 043

Glow Plug Control Unit 12V

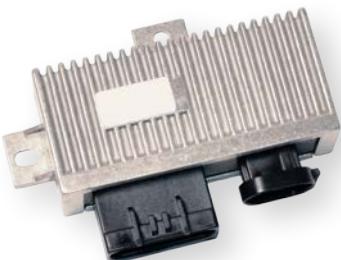
Suitable for: Peugeot/
Citroen/Fiat



51 699 001

Glow Plug Control Unit 12V

Suitable for:
Opel/Renault



51 699 002

Glow Plug Control Unit 12V

Suitable for:
Opel/Renault



51 699 003

Glow Plug Control Unit 12V

Suitable for: Opel/
Renault/Nissan

Preheating Relays and control units



51 699 004

Glow Plug Control Unit 12V

Suitable for: Peugeot/
Citroen/Fiat



51 699 005

Glow Plug Control Unit 12V

Suitable for:
Renault



51 699 006

Glow Plug Control Unit 12V

Suitable for:
Opel/Renault



51 699 007

Glow Plug Control Unit 12V

Suitable for: Peugeot/
Citroen/Fiat



51 699 008

Glow Plug Control Unit 12V

Suitable for: Peugeot/
Citroen/Fiat

Timing Relays

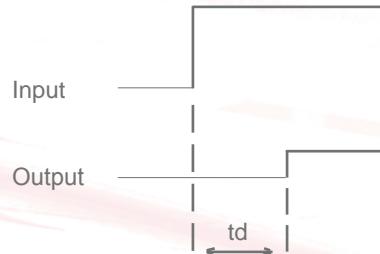


Timing Relays

For many technical applications it is necessary to switch time-delayed loads on and off.

Two groups result:

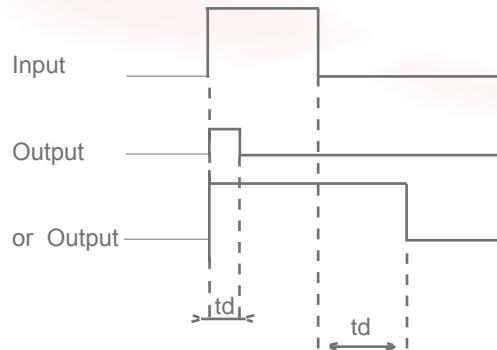
Delay-on-Relays



Application:

- Compressor air conditioning
- Bus doors
- Time-delayed motors

Delay-off-Relays



Application:

- Radiator fan
- Rear view mirror heating
- Headlight cleaning
- Timer

The exit that triggers the load is activated by an entry signal.

The entry can be a switch or a button with plus or minus or a distribution voltage itself.

The exit can be either a relay (closing contact or change-over switch) or a power semi-conductor.

12 + 24 volt usage is possible.

Multitimer



The Multitimer combines several time-relays functions: on-delay, off-delay, and impulsfunction. The functions and time periods can be individually adjusted by means of a rotary switch and a potentiometer. The output goes by way of a change-over contact, 10A, which is connected to terminal 30.

This Multitimer allows the reduction of the number of versions needed on stock.

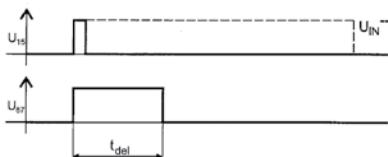
The Multitimer is pin-compatible to standard sockets.

Time- / Function Chart:

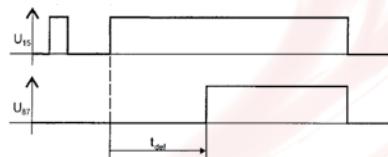
0 no function	5 5 ... 60 s Delay on
1 0,5 ... 10 s Impulsr.	6 0,5 ... 20 min Delay on
2 560 s Impulsr.	7 0,5 ... 10 s Delay off
3 0,5 ... 20 min Impulsr.	8 5 60 s Delay off
4 0,5 ... 10 s Delay on	9 0,5 ... 20 min Delay off

This timer can also be used as a switching relay.
As a result, stockkeeping relays for special applications becomes unnecessary.

Impulse



Delay on

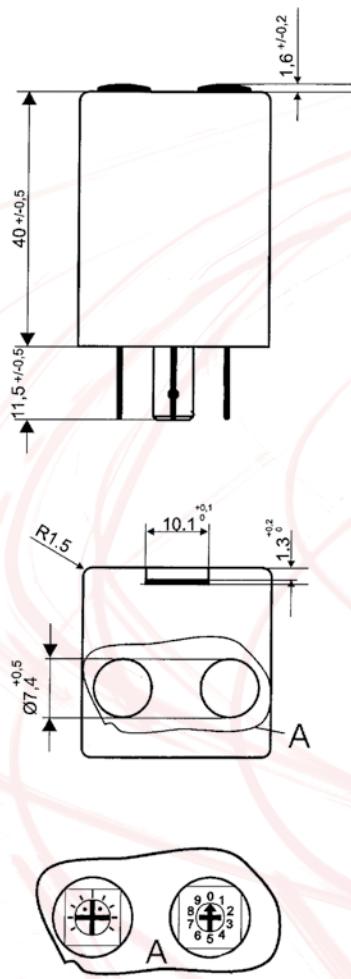


Delay off

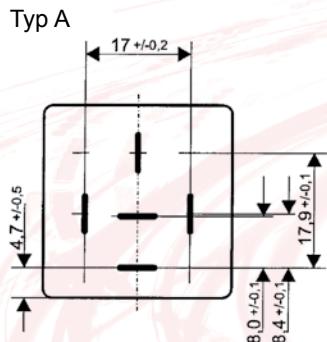


Multitimer

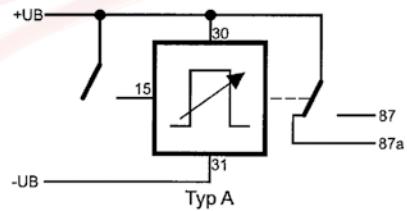
Dimensions



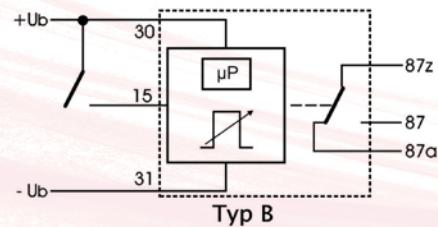
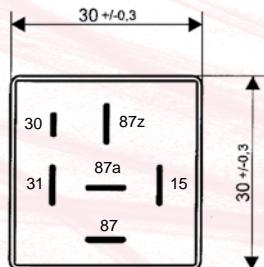
Terminal Configurations



Circuit Diagrams

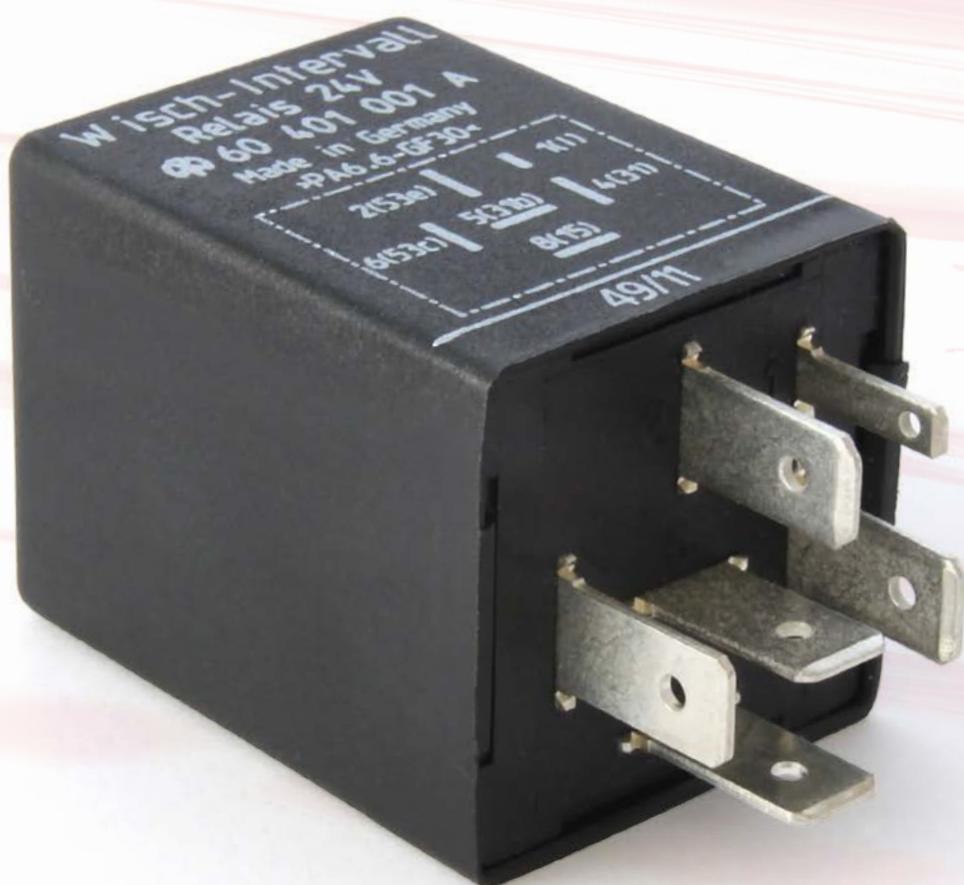


Type B



Item No.	Nominal voltage Volt(V)	Delay type	Type
13 200 000	12	delay on and off	A
13 200 001	12	delay on and off	B
13 400 000	24	delay on and off	A
13 400 001	24	delay on and off	B

Special Modules

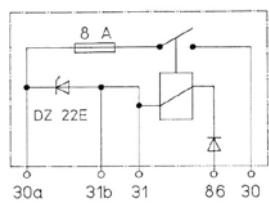


Electronic Timing Relays and Control Devices

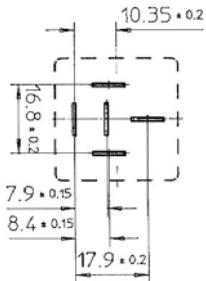


50 201 004B
ABS Relay 12V

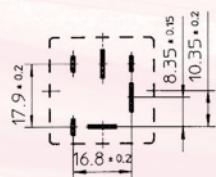
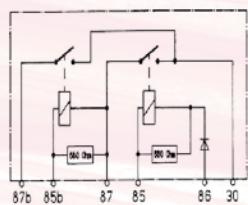
Circuit Diagrams



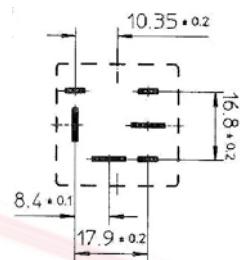
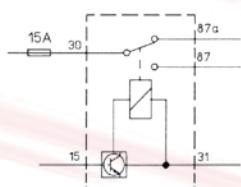
Terminal Configurations



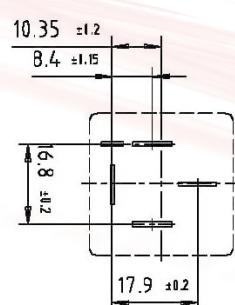
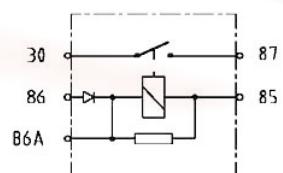
50 205 603
Fuel Pump Relay
12V with Clip and Bracket



50 205 002
Fuel Pump Relay 12V



50 237 013
Running Light Relay 12V



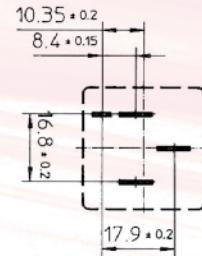
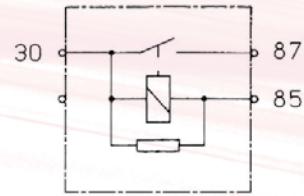
Electronic Timing Relays and Control Devices

Circuit Diagrams

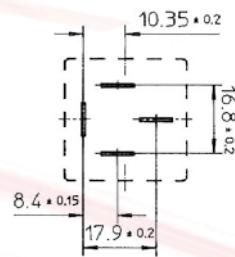
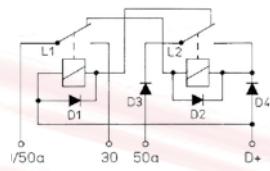
Terminal Configurations



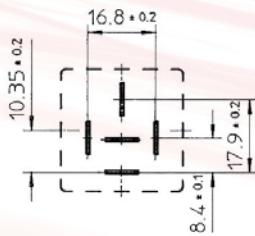
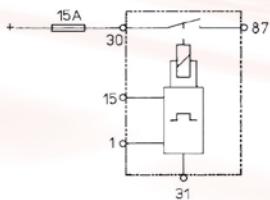
50 237 012
Relay for VR6 Motronic 12V



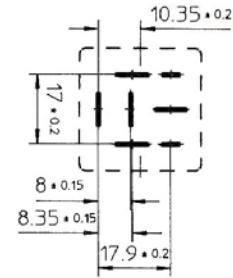
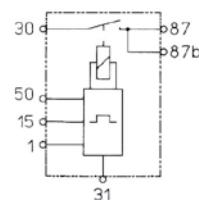
50 405 001
Start Repeat Locking 24V



51 204 003
Fuel Pump Relay 12V



51 223 909
Fuel Pump Relay 12V



51 223 093
Fuel Pump Control Unit 12V

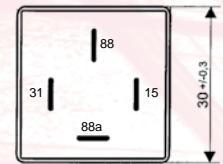
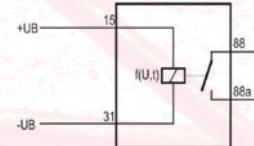
Electronic Timing Relays and Control Devices

Circuit Diagrams

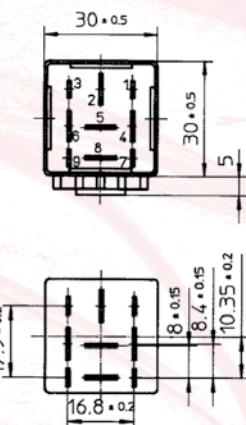
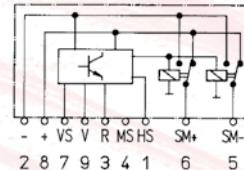
Terminal Configurations



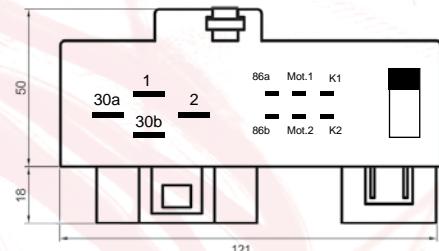
68 401 001
Voltage Monitor 24V, 40A



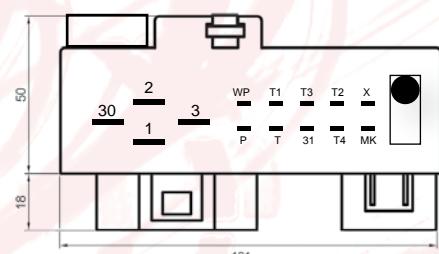
58 209 003
Motor Control 12V



69 200 107
Cooling Fan Control Relay 12V



69 200 101
Cooling Fan Control Relay 12V

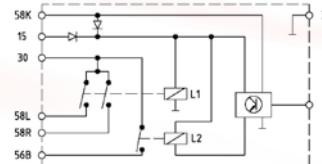


Electronic Timing Relays and Control Devices

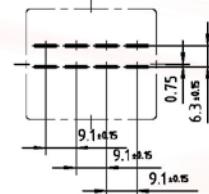


58 226 608
Day time Light Relay 12V

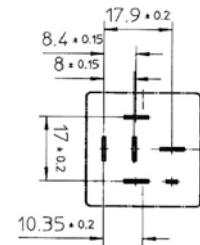
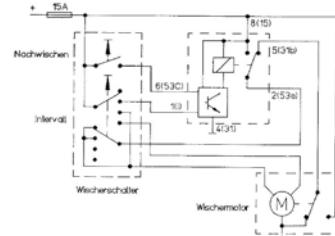
Circuit Diagrams



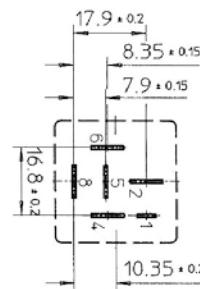
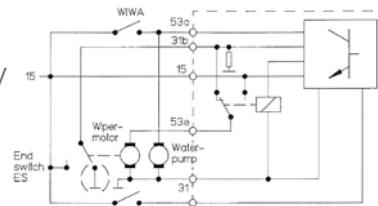
Terminal Configurations



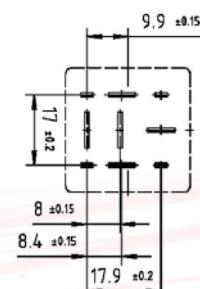
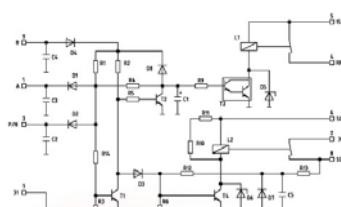
60 201 002
Wiper-Washer-Intervallrelay 12V



60 401 001A
Wiper-Washer-Intervallrelay 24V



61 233 004
Logic Relay 12V



Additional models upon request

Electronic Timing Relays and Control Devices

Circuit Diagrams

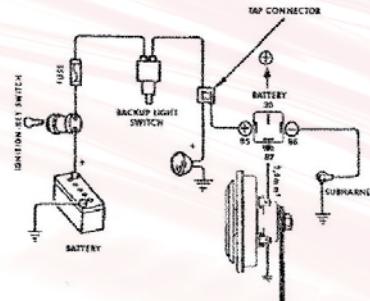
Terminal Configurations

13 204 201

Back up Alarm Unit 12V



Acoustic warning signal during reverse driving. Works when back-up light is on. Customer can choose the acoustic source: buzzer, horn, claxon, disk horn. The metal bracket is enclosed in the packaging.

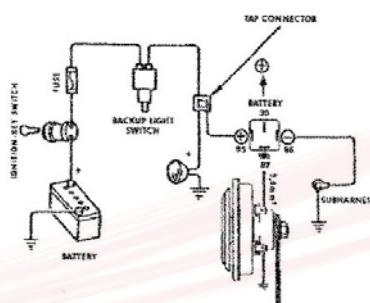
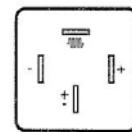


13 404 201

Back up Alarm Unit 24V



Acoustic warning signal during reverse driving. Works when back-up light is on. Customer can choose the acoustic source: buzzer, horn, claxon, disk horn. The metal bracket is enclosed in the packaging.



Additional models upon request

Electronic Timing Relays and Control Devices

Circuit Diagrams

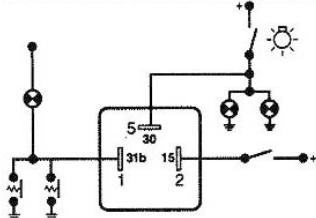
Terminal Configurations



13 620 301

Lights Warning Unit 12V

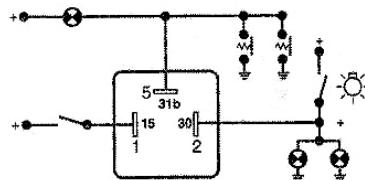
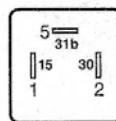
An acoustic warning signal is given off if doors are opened while lights are still on. The signal is louder than usual: >85dB - 30 cm. Can be used for all brands. The metal bracket is enclosed in the packaging.



13 620 302

Lights Warning Unit 12V

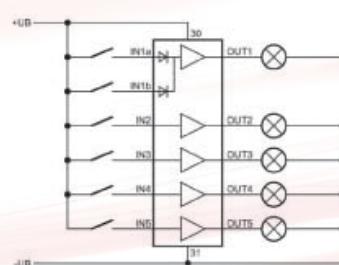
An acoustic warning signal is given off if doors are opened while lights are still on. The signal is louder than usual: >85dB - 30 cm. Can be used in all french cars. The metal bracket is enclosed in the packaging.



13 258 000

Trailer Control Modul

5 Kanal 5xpos. getriggert 14pol.

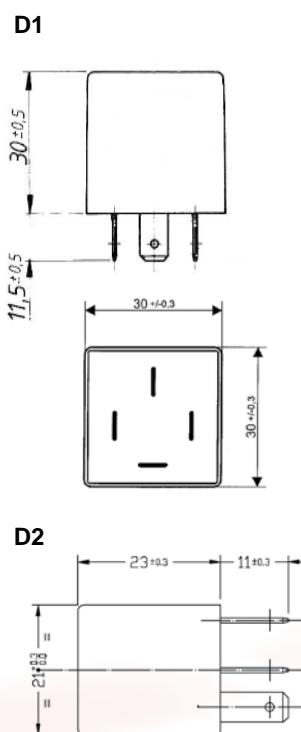


Additional models upon request

Diode

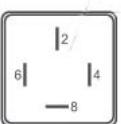


Dimensions



Terminal Configurations

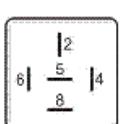
A1



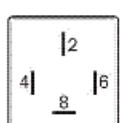
A2



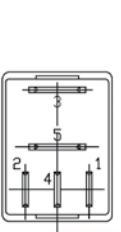
A3



A4



A5

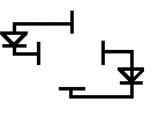


Circuit Diagrams

S1



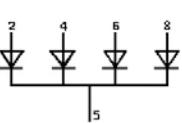
S2



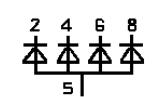
S3



S4



S5



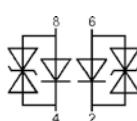
S6



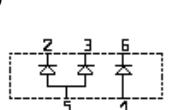
S7



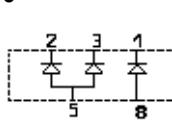
S8



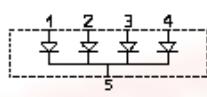
S9



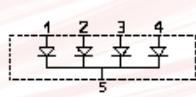
S10



S11



S12



Item No.	Description	Terminal config.	Circuit diagram	Dimension
13 254 052	einzeln 2 x 3A 1300V	A1	S1	D1
13 254 060	einzeln 2 x 3A 1300V	A1	S2	D1
13 254 062	einzeln 4 x 3A 1300V	A2	S3	D1
13 254 064	gem. Kathode Pin5 4 x 3A 1300V	A3	S4	D1
13 254 066	gem. Anode Pin5 4 x 3A 1300V	A3	S5	D1
13 254 070	gem. Kathode Pin8 4 x 3A 1300V	A3	S6	D1
13 254 072	gem. Anode Pin8 4 x 3A 1300V	A3	S7	D1
13 254 074	einzeln 2 x 15A 32V Schottky m. Suppressor diode	A4	S8	D1
13 254 610	3A - 1000V	A5	S9	D2
13 254 630	3A - 1000V	A5	S10	D2
13 254 660	3A - 1000V	A5	S11	D2
13 254 670	1A - 400V	A5	S12	D2

Voltage Regulators for Alternators

WEHRLE voltage regulators

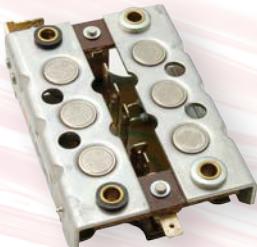
for alternators are produced according to the highest quality standards of the automotive industry and fulfill even the strictest criteria. According to type there are body mounted or integrated voltage regulators.

Integrated Voltage Regulators

Built into generator regulators in either IC or hybrid technology.

Body Mounted Voltage Regulators

Body mounted regulators built with either contact pairs or IC-Technology.



11 244 063
Rectifier-assembly BMW motorcycles



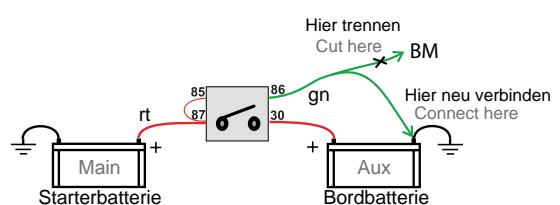
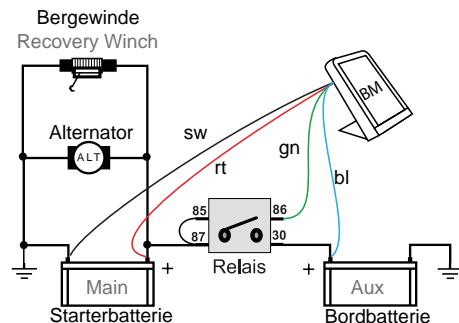
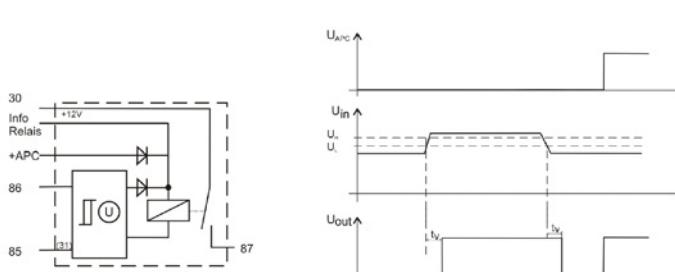
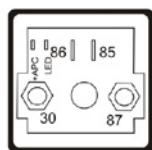
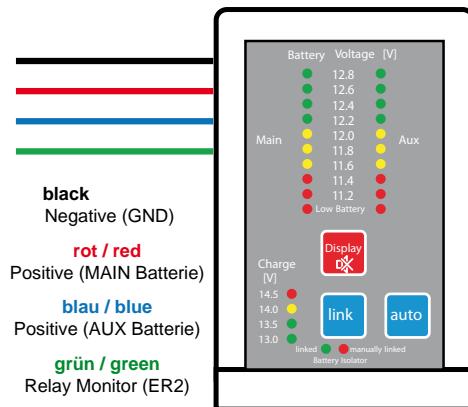
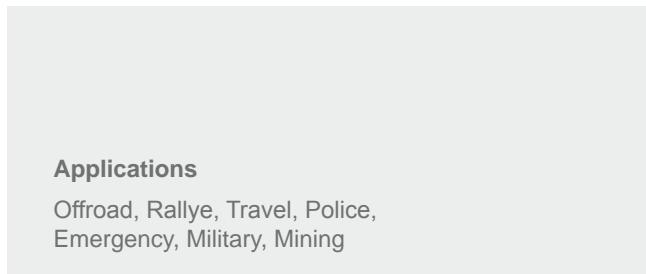
55 990 001
Voltage Regulator 14V



55 990 020
Voltage Regulator 14V, 32mm slip ring

DBMS Dual Battery Monitoring System

The fully automatic DBMS separates the starter battery from auxiliary battery if the car is stopped and link them while the car is running. All Systems are equipped with the IBS 200A power relay. systems (Link). This manual linking function (called load sharing) is very helpful for jump starting or when using high current appliances such as an electrical recovery winch, power inverter or compressor. All systems are available in 12V and 24V. D+ Signal is not required.



Item No.	Description	Nominal voltage Volt (V)
68 200 000	DBMS-D mit Display DBMS-D with Display	12
68 201 000	DBMS-R Doppelbatterie-Relais DBMS-R Dual-Battery-Relay	12
68 201 001	Batterietrennrelais Battery isolating relay	12
68 400 000	DBMS-D mit Display DBMS-D with Display	24
68 401 000	DBMS-R Doppelbatterie-Relais DBMS-R Dual-Battery-Relay	24

Horns

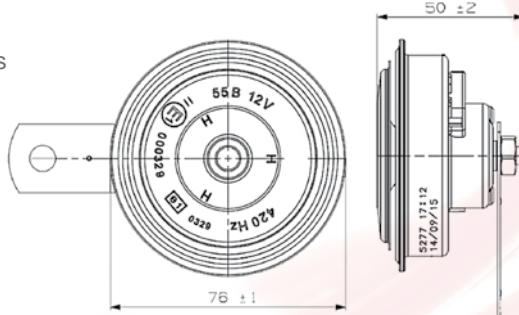


Horns

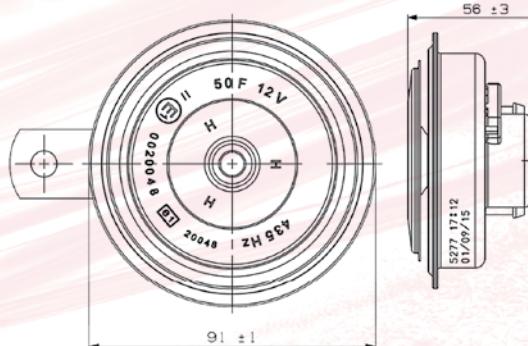


Dimensions

D1



D2



Item No.	Type	Nominal voltage Volt (V)	HT/TT/SET*	Frequency Hertz (Hz)	Dimensions Millimeter (mm)	Color	Connection type
12 412 901	Horn	12	TT	335	D2	schwarz/black	F-Type
12 412 907	Horn	12	TT	335	D2	schwarz/black	L-Type
12 412 906	Horn	12	TT	335	D2	schwarz/black	K-Jet
12 432 901	Horn	12	Set	335/450	D2	schwarz/black	F-Type
12 432 907	Horn	12	Set	335/450	D2	schwarz/black	L-Type
12 422 901	Horn	12	HT	450	D2	schwarz/black	F-Type
12 422 907	Horn	12	HT	450	D2	schwarz/black	L-Type
12 422 906	Horn	12	HT	335	D2	schwarz/black	K-Jet
12 612 901	Horn	12	TT	350	D1	schwarz/black	F-Type
12 612 907	Horn	12	TT	350	D1	schwarz/black	K-Jet
12 612 908	Horn	12	TT	350	D1	schwarz/black	L-Type
12 622 901	Horn	12	HT	420	D1	schwarz/black	F-Type
12 622 907	Horn	12	HT	420	D1	schwarz/black	K-Jet
12 622 908	Horn	12	HT	420	D1	schwarz/black	L-Type
12 413 902	Horn	24	TT	335	D2	schwarz/black	L-Type
12 413 901	Horn	24	TT	335	D2	schwarz/black	F-Type
12 423 901	Horn	24	HT	450	D2	schwarz/black	F-Type
12 423 902	Horn	24	HT	450	D2	schwarz/black	L-Type

* HT = Hochton/high frequency, TT = Tiefton / low frequency, SET = Hochton + Tiefton / high and low frequency



F-Type

Standard Universal Anschluss
6,3 x 0,8 DIN 46244



L-Type

Standard Universal Anschluss
6,3 x 0,8



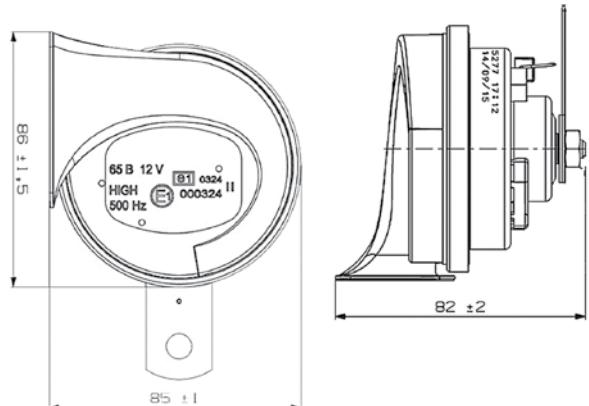
K-Jet

VW Anschluss
6,5 x 0,8

Horns



Dimension

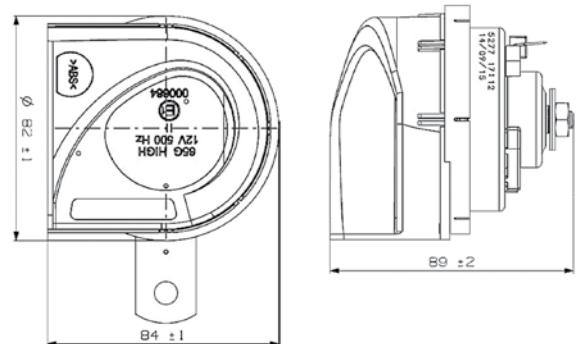


Item No.	Type	Nominal voltage Volt (V)	HT/TT/SET*	Frequency Hertz (Hz)	Color	Connection type
12 712 907	Fanfare	12	TT	420	schwarz/black	L-Type
12 722 907	Fanfare	12	HT	510	schwarz/black	L-Type
12 732 907	Fanfare	12	Set	420 / 510	schwarz/black	L-Type

* HT = Hochton/high frequency, TT = Tiefton / low frequency, SET = Hochton + Tiefton / high and low frequency



Dimension



Item No.	Type	Nominal voltage Volt (V)	HT/TT/SET*	Frequency Hertz (Hz)	Color	Connection type
12 712 906	Fanfare	12	TT	420	schwarz/black	K-Jet
12 712 901	Fanfare	12	TT	420	schwarz/black	F-Type
12 732 901	Fanfare	12	Set	420 / 510	schwarz/black	F-Type
12 732 902	Fanfare	12	Set	420 / 510	schwarz/black	K-Jet
12 722 906	Fanfare	12	HT	510	schwarz/black	K-Jet
12 722 901	Fanfare	12	HT	510	schwarz/black	F-Type

* HT = Hochton/high frequency, TT = Tiefton / low frequency, SET = Hochton + Tiefton / high and low frequency

Additional models upon request

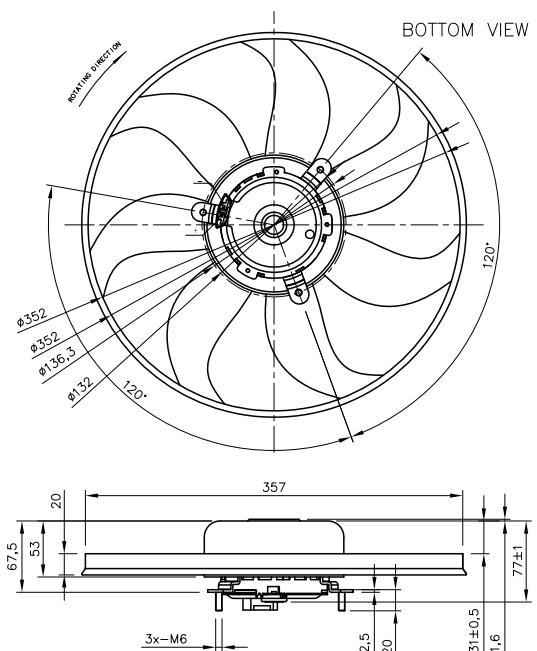
Fans



69 201 100
Radiator Fan 350W 12V

69 201 101
Radiator Fan 550W 12V

Dimension



69 201 102
Fan Motor 12V

Camera Systems



64 799 050
Camera VW



64 799 051
Camera VW



Camera Systems



64 799 054
Camera VW



64 799 057
Camera VW



64 799 070
Camera VW



64 799 072
Camera VW



64 799 073
Camera VW



64 799 075
Camera VW



64 799 092
Camera VW



64 799 110
Camera VW

Camera Systems



64 799 111
Camera VW



64 799 112
Camera VW



64 799 113
Camera VW



64 799 119
Camera VW



64 799 994
Camera VOLVO



64 799 025
Camera FORD



64 799 003
Camera Mercedes



64 799 030
Camera Mercedes

Camera Systems



64 799 026
Camera Mercedes



64 799 029
Camera Mercedes



64 799 032
Camera Mercedes



64 799 097
Camera Mercedes



64 799 101
Camera Mercedes



MP00083
Camera AUDI

Fuses, Sockets and Accessories



Fuses, Sockets and Accessories



Continental Fuses DIN 72581

Artikel Nr. Item No.	Nennstrom Nominal current Ampere (A)	Farbe Colour
11 400 005	5A	gelb/yellow
11 400 008	8A	weiss/white
11 400 016	16A	rot/rot
11 400 025	25A	blau/blau
11 400 040	40A	schwarz/black

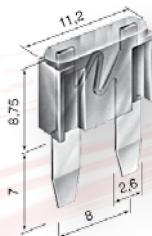


Blade Fuses

DIN 72581, FIAT 9.91815, SAE J 1284, max. 32V

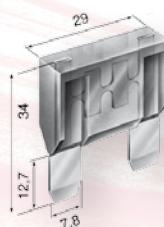
Artikel Nr. Item No.	Nennstrom Nominal current Ampere (A)	Farbe Colour
11 401 001	1A	schwarz/black
11 401 002	2A	grau/grey
11 401 003	3A	violett/violet
11 401 004	4A	rosa/pink
11 401 005	5A	hellbraun/light brown
11 401 007	7,5A	braun/brown
11 401 010	10A	rot/red
11 401 015	15A	blau/blue
11 401 020	20A	gelb/yellow
11 401 025	25A	farblos/neutral
11 401 030	30A	grün/green
11 401 040	40A	orange/orange

Fuses, Sockets and Accessories



MINI Blade Fuses SAE J 2077, max. 32V

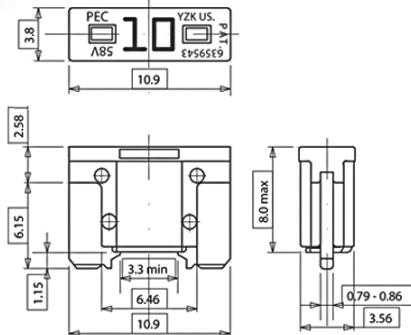
Item No.	Nominal current Ampere (A)	Colour
11 402 002	2A	grau/grey
11 402 003	3A	violett/violet
11 402 004	4A	rosa/pink
11 402 005	5A	hellbraun/light brown
11 402 007	7,5A	braun/brown
11 402 010	10A	rot/red
11 402 015	15A	blau/blue
11 402 020	20A	gelb/yellow
11 402 025	25A	farblos/neutral
11 402 030	30A	grün/green



MAXI Blade Fuses max. 32V

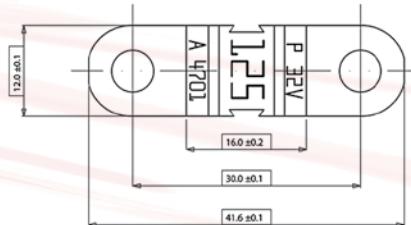
Item No.	Nominal current Ampere (A)	Colour
11 403 020	20A	gelb/yellow
11 403 030	30A	grün/green
11 403 040	40A	orange/orange
11 403 050	50A	rot/red
11 403 060	60A	blau/blue
11 403 070	70A	hellbraun/light brown
11 403 080	80A	farblos/neutral
11 403 100	100A	violett/violet

Fuses, Sockets and Accessories



Minipro ile Fuses max. 58V

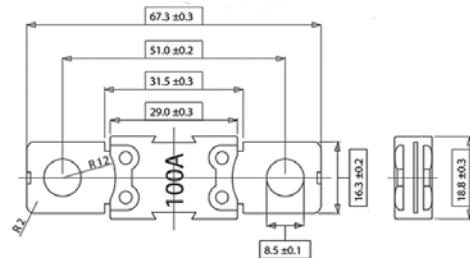
Item No.	Nominal current Ampere (A)	Colour
11 404 002	2A	grau/grey
11 404 003	3A	violett/violet
11 404 004	4A	rosa/pink
11 404 005	5A	tan
11 404 007	7,5A	braun/brown
11 404 010	10A	rot/red
11 404 015	15A	blau/blue
11 404 020	20A	gelb/yellow
11 404 025	25A	farblos/neutral
11 404 030	30A	grün/green



Midival Fuses max. 32V

Item No.	Nominal current Ampere (A)	Colour
11 405 030	30A	orange/orange
11 405 040	40A	grün/green
11 405 050	50A	rot/red
11 405 060	60A	gelb/yellow
11 405 070	70A	braun/brown
11 405 080	80A	weiss/white
11 405 100	100A	blau/blue
11 405 125	125A	rosa/pink
11 405 150	150A	grau/grey
11 405 200	200A	violett/violet

Fuses, Sockets and Accessories



Megaval Fuses max. 32V

Item No.	Nominal current Ampere (A)	Colour
11 406 100	100A	gelb/yellow
11 406 125	125A	grün/green
11 406 150	150A	orange/orange
11 406 175	175A	weiss/white
11 406 200	200A	blau/blue
11 406 225	225A	tan
11 406 250	250A	rosa/pink
11 406 300	300A	grau/grey
11 406 400	400A	violett/violet
11 406 500	500A	braun/brown



Continental Fuses Blister Packaging 10 pcs, max. 32V

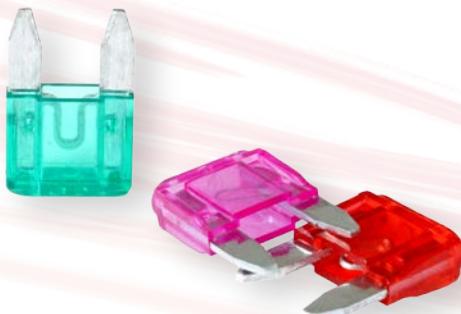
Item No.	Nominal current Ampere (A)
11 410 001	1x 5A, 4x 8A, 2x 16A, 2x 25A, 1x 40A
11 410 002	1x 5A, 4x 8A, 3x 16A, 2x 25A
11 410 003	1x 5A, 3x 8A, 1x 10A, 3x 16A, 2x 25A
11 410 004	1x 5A, 4x 8A, 2x 16A, 1x 25A, 1x 40A, 1x Glas/Glass 5x20 2A
11 410 005	1x 5A, 4x 8A, 2x 16A, 2x 25A, 1x Glas/Glass 5x20 2A
11 410 006	1x 5A, 2x 8A, 2x 10A, 2x 16A, 2x 25A, 1x Glas/Glass 5x20 2A

Fuses, Sockets and Accessories



Blade Fuses
Blister Packaging

Item No.	Nominal current Ampere (A)
11 411 001	1x 3A, 1x 5A, 1x 7,5A, 2x 10A, 1x 15A, 2x 20A, 1x 25A, 1x 30A
11 411 002	1x 3A, 1x 5A, 1x 7,5A, 1x 10A, 1x 15A, 2x 20A, 1x 25A, 1x 30A
11 411 003	1x 7,5A, 1x 10A, 1x 15A, 1x 20A, 1x 25A, 1x 30A
11 411 004	1x 7,5A, 2x 10A, 1x 15A, 2x 20A, 1x 25A, 1x 30A



MINI Blade Fuses Blister Packaging

Artikel Nr. Item No.	Nennstrom Nominal current Ampere (A)
11 412 001	1x 5A, 2x 7,5A, 2x 10A, 2x 15A, 1x 20A, 1x 25A, 1x 30A
11 412 002	1x 3A, 1x 5A, 1x 10A, 1x 15A, 1x 20A, 1x 30A

Fuses, Sockets and Accessories



MAXI Blade Fuses Blister Packaging

Item No.	Nominal current Ampere (A)
11 413 001	1x 30A, 1x 40A, 1x 50A, 1x 60A, 1x 70A
11 413 002	1x 30A, 1x 40A
11 413 003	1x 50A, 1x 60A



Glass Fuses Blister Packaging

Item No.	Nominal current Ampere (A)
11 414 001	2x 6,3x32 16A, 2x 6,3x32 10A, 1x 6,3x32 25A, 1x 5x20 2A

Fuses, Sockets and Accessories



Blade Fuses in box + extractor

Item No.	Nominal current Ampere (A)
11 415 001 (80 STK)	10x 3A, 10x 5A, 10x 7,5A, 10x 10A, 10x 15A, 10x 20A, 10x 25A, 10x 30A, 1x Zange/extractor
11 415 002 (160 STK)	20x 3A, 20x 5A, 20x 7,5A, 20x 10A, 20x 15A, 20x 20A, 20x 25A, 20x 30A, 1x Zange/extractor



Blade Fuses MINI

Item No.	Nominal current Ampere (A)
11 415 004 (40 STK)	3x 20A, 3x 30A, 10x 40A, 10x 50A, 10x 60A, 2x 70A, 2x 80A
11 415 003 (80 STK)	10x 2A, 10x 3A, 5x 4A, 5x 5A, 10x 7,5A, 10x 10A, 10x 15A, 10x 20A, 5x 25A, 5x 30A

Fuses, Sockets and Accessories



FUSE SET IN BOX 360 pcs

Item No.	Nominal current Ampere (A)
11 415 005	Flachstecksicherungen/Blade Fuses: 25x 5A, 25x 7,5A, 25x 10A, 25x 15A, 25x 20A, 25x 25A, 25x 30A; 25x 40A, Flachstecksicherungen MINI/MINI Blade Fuses: 00x 8A, 100x 16A, 100x 25A Glassicherungen/Glass Fuses: 100x 2A



FUSE SET IN BOX 1050 pcs

Item No.	Nominal current Ampere (A)
11 415 006	Flachstecksicherungen/Blade Fuses: 50x 5A, 100x 7,5A, 100x 10A, 100x 15A, 100x 20A, 50x 25A, 50x 30A; Schmelzsicherungen/Continental Fuses: 200x 8A, 100x 16A, 100x 25A Glassicherungen/Glass Fuses: 100x 2A

Fuses, Sockets and Accessories



10 070 001

Flat Socket Connector 6,3mm / without
insulated fitting



10 070 002

Flat Socket Connector 6,3mm with crimp
contact / with insulated fitting



10 070 006

Flat Socket Connector with Claw
2,8x0,8mm / without insulated fitting



10 070 007

Flat Socket Connector with Claw 9,5mm /
with insulated fitting

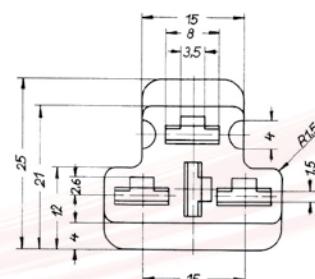
Additional models upon request

Terminal Configurations



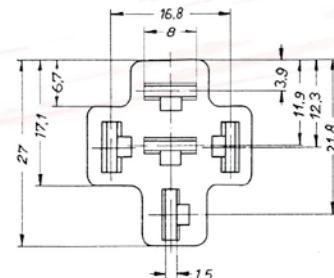
10 050 004

Flat Socket Connector



10 485 007

Flat Socket Connector



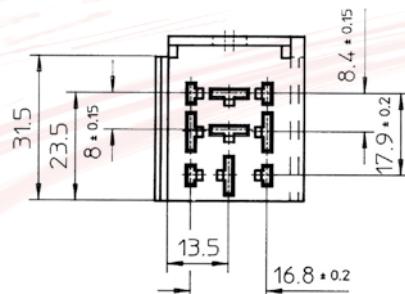
Fuses, Sockets and Accessories



10 485 008

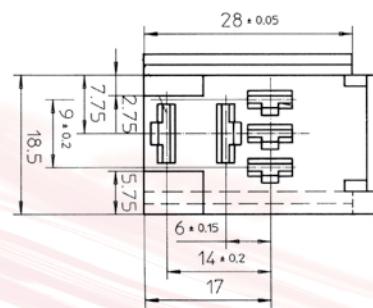
Socket

Terminal Configurations



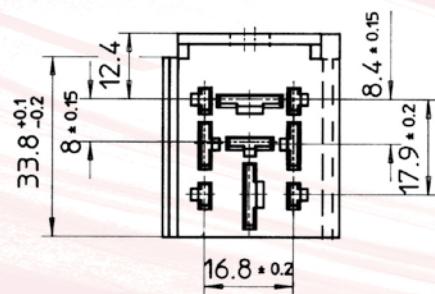
10 700 004

Socket



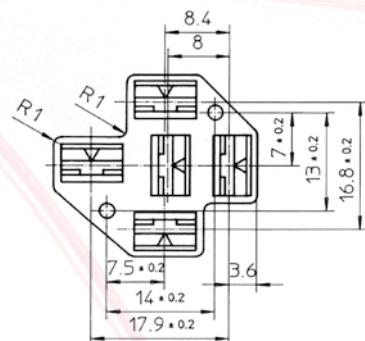
10 700 007

Socket (Black)



10 700 005

Socket (Beige)



10 700 006

Socket for PCB-mounting 5 x 6,3mm

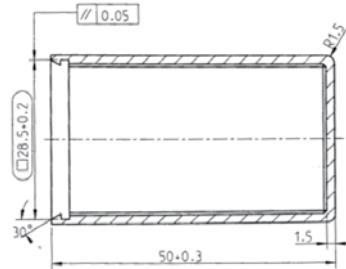
Fuses, Sockets and Accessories

Terminal Configurations



52 620 01 03

Housing neutral



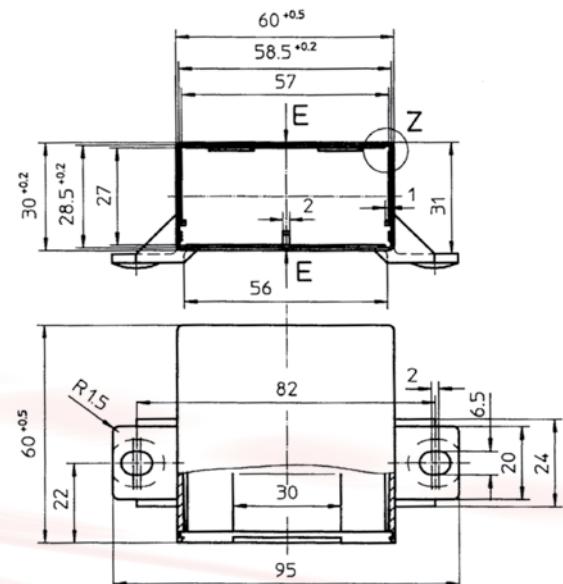
52 620 02 04

Housing WEHRLE



54 620 08 03

Housing

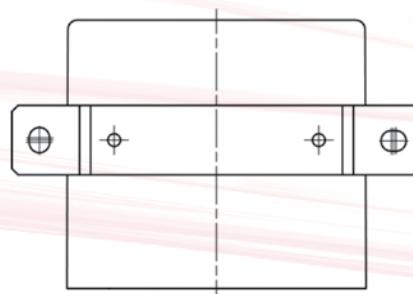


58 680 63 14

Housing 95x85x35 mm



Metal bracket



Additional models upon request

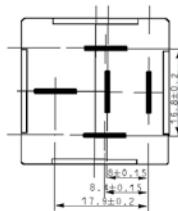
Fuses, Sockets and Accessories



51 680 74 24

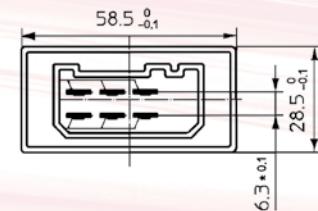
Ground plate

Terminal Configurations



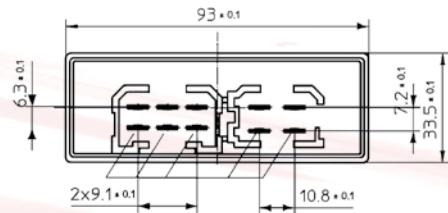
54 680 60 24

Ground plate



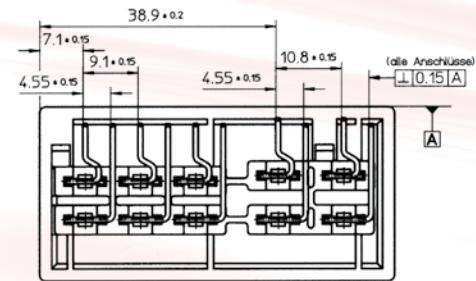
58 680 58 24

Ground plate



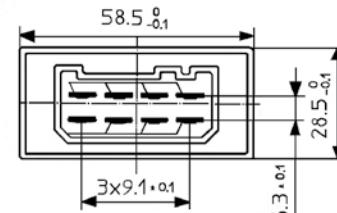
61 680 40 03

Ground plate



50 680 19 24

Ground plate



Additional models upon request

