## BOSCH RELAY CATALOGUE

**VERSION 2020** 

# COMFORT ELECTRONIC AA-TR/PAC



### Indication

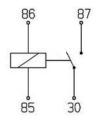
"Please note that this catalogue is for information only. The listed products do not constitute binding purchase offers. We reserve the right to update the products and the information given herein. Please feel free to contact our sales department in case of any questions, or if you would like to receive an individual offer."



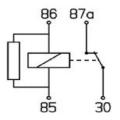
### Relay product information

### Relay operating modes

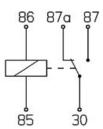
**Make contact** is a relay contact that is open when a relay is in idle position and closes when the relay moves to the operating position.



**Break contact** is a relay contact that is closed when a relay is in idle position and opens when the relay moves to the operating position.



Change over contact (transfer contact) is a set of contacts with three electrically isolated connections, consisting of a make contact and a break contact. When the switching position changes, the previously closed contact opens first and the previously open contact then closes.



### Parameter explanation

### Relay applications

This catalog contains the technical specifications that a design engineer needs to select the appropriate relay to meet his requirements. Bosch d.c. relays were originally designed for automotive applications. For all other applications, particularly those with differing requirements, loads or ambient conditions, we recommend prior technical consultation.

Bosch d.c. relays can withstand extreme conditions. They meet the following requirements:

- ▶ High-power switching
- ► Function over a wide temperature range
- ▶ Excellent vibration and impact resistance
- ▶ Long service life and good climatic resistance

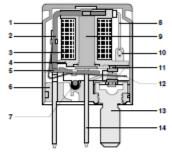
Bosch d.c. relays are used for switching electrical equipment that has a high power or is sensitive to voltage losses. Relays relieve the burden on control switches and provide low voltage drops with economical wire cross-sections. In addition, relays make it easy to set up interiock circuits.

Mini and micro relays are Ideal for use where space Is at a premium.

Multifunction connectors allow easy assembly and extremely low fault rates on pre-tested wiring harnesses – particularly for OEMs. The same applies to servicing. The following mini and micro relay designs are available:

- Relays without mounting bracket, easy to plug into screw-on combination receptacle housings
- Relays with mounting bracket for connection to five-pole receptacle housing

Power relays allow a rated switching current of more than 50 A. They are suitable for switching motors, starters and other devices. Micro relay: 1 Housing 2 Solenoid bracket and terminal 3
3 Coil 4 Bobbin 5 Armature 6 Base plate 7 Damping resistor or diode 8 Connecting wire 9 Core 10 Terminal 1/2 11 Contact 12 Spring 13 Terminal 4 14 Terminal 5



Mini relay: 1 Base plate 2 Terminal 86 3 Terminal 87 4 Terminal 87a 5 Terminal 85 6 Clamping plece 7 Coll connecting bracket 8 Terminal 30 9 Solenoid bracket 10 Housing 11 Coll 12 Bobbin 13 Core 14 Armature 15 Spring 16 Contact



### Terms and definitions

### Characteristic quantities and terms

### Terms (where standardized, based on DIN 41215)

Various characteristic quantities and their values allow an appropriate relay to be selected to perform a specific task. Each relay type must meet specific requirements at the specified characteristic values during its service life.

Response voltage is the minimum excitation voltage that causes a relay to respond, taking into account the ambient temperature and self-heating.

Response time is the time from closure of the feed circuit until the first closure of a make contact or the first opening of a break contact.

Operating voltage is the value of the excitation voltage, at which the relay has the characteristic data required for operation.

Excitation voltage is the electrical voltage that permits the electric current that flows through the excitation winding and causes excitation. Connection is via terminals 1 and 2 and terminals 85 and 86.

Rated value is the value of a variable (e.g. voltage, current, resistance) for which a relay, its parts and its properties are designed or after which they are named.

### Correction factor

Characteristic data on the excitation side relate to an ambient temperature of +20°C. If the ambient temperature is different, the winding resistance and the response and release voltages can be converted using a correction factor K:

 $K = [1 + a(t_n - 20^{\circ}C)]$ 

 $t_u$  = Actual ambient or coll temperature

 $\alpha = 0.004 \text{ K}^{-1}$  (Average temperature coefficient for copper)

Bounce time is the time from the first to the last closure of a relay contract when the relay is shifting to a different position.

Release voltage is the value of the maximum excitation voltage that causes a relay to release, taking into account the ambient temperature and self-heating.

Release time (release delay) is the time from the opening of the feed circuit until the first opening of a make contact or the first closure of a break contact.

Switching voltage is the voltage that is present between the contacts with an open circuit, when the transient effects have subsided.

Voltage drop is the voltage at the relay connections for a closed relay contact, measured at a defined current.

Total resistance of the feed circuit is the electrical resistance between the connecting terminals 1 and 2 and terminals 85 and 86.



### Protection and operating modes

### Protection types and operating modes

### Switching operations

Response is an operation in which a relay moves from its idle position to its operating position.

Opening Is an operation that breaks the electrical contact.

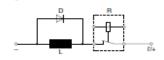
Release is an operation in which a relay moves from its operating position to its idle position.

Operating cycle is one response and release of a relay.

Number of operations is the number of operating cycles.

Closing Is an operation that results in contact making.

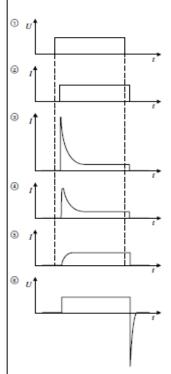
For Inductive loads and motors, a protective circuit is often required, which can be implemented with a freewheeling diode parallel to the load (see circuit diagram).



L Inductive load D Freewheeling diode U Supply voltage R Relay

### Typical load curves

- Excitation voltage for relay coll
   Current curve with resistance load
- (3) Current curve with lamp load
- Current curve with motor load
- Current curve with inductive load
- Voltage curve with Inductive load



### Service life

Mechanical service life specifies the number of operating cycles with current-free relay contacts for which the relay remains operational.

Contact service life specifies the number of operating cycles with electrical contact load for which the relay remains operational.

### Switching contacts

Make contact is a relay contact that is open when a relay is in idle position and closes when the relay moves to the operating position.

Break contact is a relay contact that is closed when a relay is in idle position and opens when the relay moves to the operating position.

Double changeover contact (transfer contact) is a set of contacts with three electrically isolated connections, consisting of a make contact and a break contact. When the switching position changes, the previously closed contact opens first and the previously open contact then closes.



## Product list (1) Quick link to each p/n

### **Power Relays**

- ▶ 0 331 802 100
- ▶ 0 332 002 150
- 0 332 002 155
- 0 332 002 156
- ▶ 0 332 002 160
- ▶ 0 332 002 161
- ▶ 0 332 002 168
- ▶ 0 332 002 250
- ► 0 332 002 255
- ▶ 0 332 002 256
- 0 332 002 257
- 0 332 002 257
   ▶ 0 332 002 258

### Mini / Micro Relays

- ▶ 0 332 011 007
- 0 332 014 112
- 0 332 014 125
- 0 332 015 001
- 0 332 015 002
- ▶ 0 332 015 006
- ▶ 0 332 015 008
- ▶ 0 332 017 300
- ▶ 0 332 019 103
- 0 332 019 109

- 0 332 019 110
- ▶ 0 332 019 150
- 0 332 019 151
- 0 332 019 155
- 0 332 019 157
- ▶ 0 332 019 166
- ▶ 0 332 019 203
- 0 332 019 204
- ▶ 0 332 019 205
- 0 332 019 213
- 0 332 019 453
- 0 332 019 456
- 0 332 019 801
- 0 332 109 011
- ▶ 0 332 201 107
- 0 332 204 125
- 0 332 204 202
- 0 332 204 203
- 0 332 207 402
- 0 332 207 405
- ▶ 0 332 209 137
- 0 332 209 138
- ▶ 0 332 209 150
- 0 332 209 151

- ▶ 0 332 209 152
- ▶ 0 332 209 158
- ▶ 0 332 209 159
- ▶ 0 332 209 203
- ▶ 0 332 209 204
- ▶ 0 332 209 206
- ▶ 0 332 209 207
- ▶ 0 332 209 211
- ▶ 0 332 209 216
- 0 332 514 120
- 0 332 514 121
- ▶ 0 332 515 009
- ► <u>0 332 515 012</u>
- 0 332 515 022

### **Power Relays**

- ▶ 0 333 006 004
- 0 333 006 006
- ▶ 0 333 006 008
- 0 333 009 002
- 0 333 009 004
- 0 333 009 005
- 0 333 009 003
- 0 333 009 009
- 0 333 009 010
- 0 333 009 011

- 0 333 200 013
- ▶ 0 333 300 003
- 0 333 301 007
- 0 333 301 009
- 0 333 301 010
- 0.000.500.00
- ▶ 0 333 500 001

### Hazard-warning-signal flasher

- 0 335 200 007
- ▶ 0 335 200 038
- ▶ 0 335 200 041
- ▶ 0 335 200 160
- 0 335 200 161
- 0 335 210 063
- 0 335 210 143
- 0 335 210 148
- 0 000 210 170
- 0 335 210 153
- 0 335 210 164

### **Pico Relay**

▶ 0986 AH0 093



## Product list (2) Quick link to each p/n

- 0 335 215 043
   0 335 215 113
- 0 335 215 123
- 0 335 215 134
- 0 335 215 143
- 0 335 215 144
   0 335 215 145
- ▶ 0 335 215 154
- 0 335 215 155
- 0 335 215 164
- 0 335 215 168
- 0 335 215 169
- ▶ 0 335 322 001
- ► 0 335 323 001
- 0 335 323 003
- 0 333 323 003
- 0 335 330 801
- 0 335 330 802
- 0 336 101 004
- 0 336 200 047
- 0 336 200 049
- 0 336 200 051
   0 336 202 001
- 0 336 202 001
- 0 336 203 005
- 0 336 203 006
- 0 336 206 003
   0 336 206 004
- 0 336 207 006
- 0 336 208 001
- 0 336 851 004
- 0 336 851 008

▶ 0 336 900 000

### Mini / Micro Relavs

- 0 986 332 001
- 0 986 332 002
- 0 986 332 021
- 0 986 332 022
- 0 986 332 030
- 0 986 332 040
   0 986 332 041
- 0 986 332 050
- 0 986 332 050
   0 986 332 053
- 0 986 332 071
- ▶ 0 986 332 073
- ▶ 0 986 332 080
- 0 986 332 086
- ▶ 0 986 332 087
- 0 986 332 091
- ▶ 0 986 335 058
- ▶ <u>0 986 AH0 080</u>
- ▶ 0 986 AH0 081
- ▶ 0 986 AH0 082
- ▶ <u>0 986 AH0 083</u>
- ▶ <u>0 986 AH0 113</u>
- 0 986 AH0 114
   0 986 AH0 115
- ▶ 0 986 AH0 116
- ▶ 0 986 AH0 135
- ▶ 0 986 AH0 150
- 0 986 AH0 151

- ▶ 0 986 AH0 204
- 0 986 AH0 206
- 0 986 AH0 237
- 0 986 AH0 250
   0 986 AH0 251
- ▶ 0 986 AH0 253
- 0 986 AH0 282
- 0 986 AH0 285
- 0 986 AH0 288
- 0 986 AH0 296
- 0 986 AH0 297
   0 986 AH0 300
- 0 986 AH0 302
- ► 0 986 AH0 302 ► 0 986 AH0 304
- ▶ 0 986 AH0 305
- ▶ 0 986 AH0 307
- ▶ 0 986 AH0 308
- ▶ 0 986 AH0 309
- ▶ <u>0 986 AH0 320</u>
- ▶ <u>0 986 AH0 321</u>
- ▶ <u>0 986 AH0 322</u>
- ▶ <u>0 986 AH0 323</u>
- ▶ <u>0 986 AH0 328</u>
- O 986 AHO 404
- ▶ 0 986 AH0 405
- ▶ 0 986 AH0 453
- ▶ 0 986 AH0 602
- ▶ 0 986 AH0 603
- ▶ 0 986 AH0 605
- ▶ <u>0 986 AH0 611</u>

- ▶ 0 986 AH0 612
- ▶ 0 986 AH0 613
- ▶ 0 986 AH0 614
- ▶ <u>0 986 AH0 615</u>
- ▶ <u>0 986 AH0 617</u>
- ▶ 0 986 AH0 622
- ▶ 0 986 AH0 625
- ▶ 0 986 AH0 803
- ▶ 0 986 AH0 811

### Nano Relays

- ▶ 0 986 AH0 090
- ▶ <u>0 986 AH0 091</u>
- ▶ 0 986 AH0 092

### Sockets

- 3 334 485 007
- **3 334 485 008**
- **3 334 485 010 3 334 485 010 3 334 485 010 3 334 485 010 3 334 485 010 3 334 485 010**
- 3 334 485 041
- 3 334 485 045
   3 334 485 046
- 3 334 486 049



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Micro Nano Pico Relays

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Quick application guide
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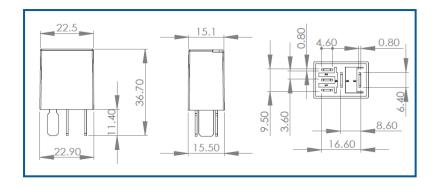
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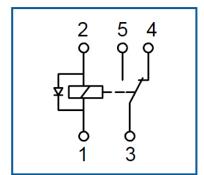


### Micro Relays 24 V, 10 A 0 986 AH0 302

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	✓	100.000	10 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







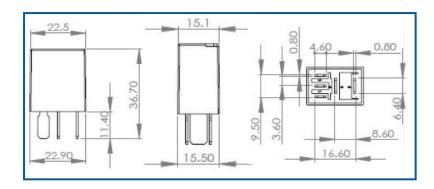
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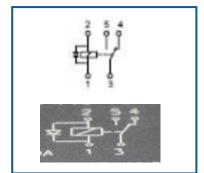


## Micro Relays 12 V, 20 A 0 986 AH0 304

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	✓	100.000	20 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







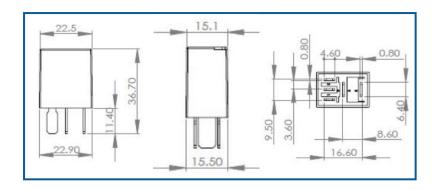
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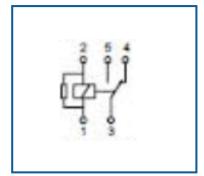


## Micro Relays 24 V, 10/5 A 0 986 AH0 305

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	10/5 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







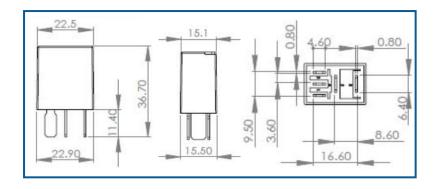
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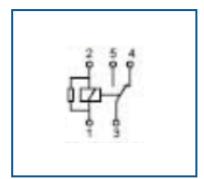


## Micro Relays 12 V, 30/10 A 0 986 AH0 307

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







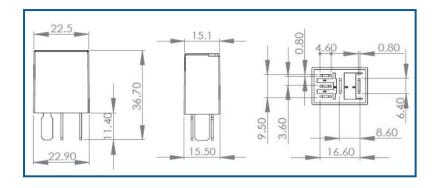
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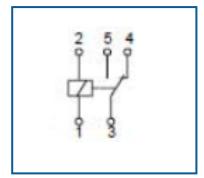


## Micro Relays 12 V, 30 A 0 986 AH0 308

Change	Normal	Normal			
over	close	open			
✓					

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	X	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







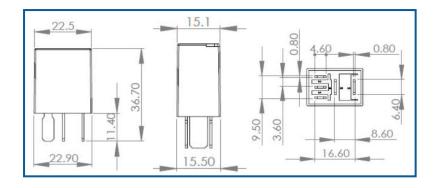
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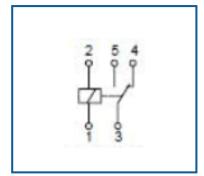


## Micro Relays 24 V, 10 A 0 986 AH0 309

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	100.000	10 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







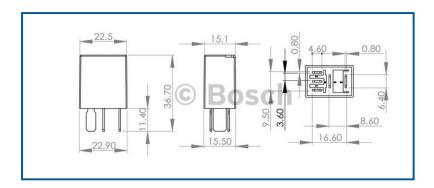
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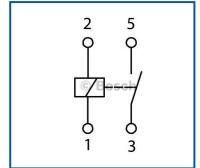


## Micro Relays 12 V, 20 A 0 986 AH0 320

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	X	x	100.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







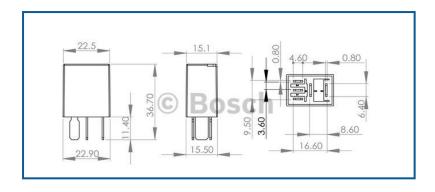
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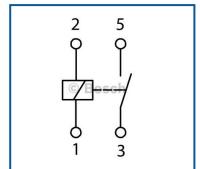


## Micro Relays 24 V, 10 A 0 986 AH0 321

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	100.000	10 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







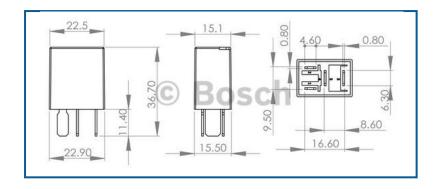
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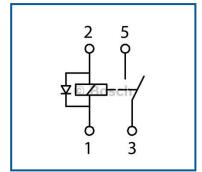


## Micro Relays 12 V, 10 A 0 986 AH0 322

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housin g type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	✓	100.000	10 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







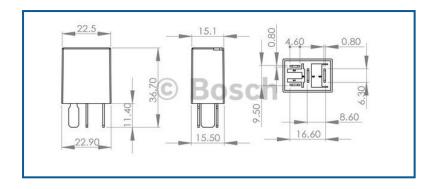
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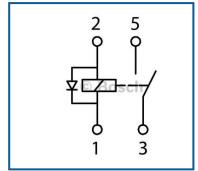


### Micro Relays 24 V, 10 A 0 986 AH0 323

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	✓	100.000	10 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







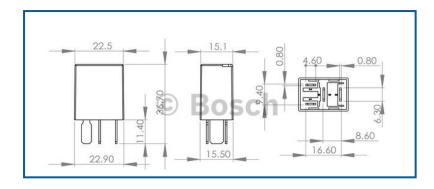
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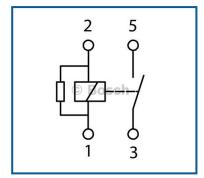


## Micro Relays 24 V, 10 A 0 986 AH0 328

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	10 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







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## Mini Relays

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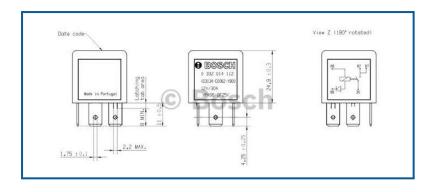


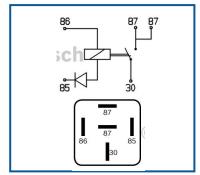
Replacement: 0 986 AH0 602



2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	✓	250.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







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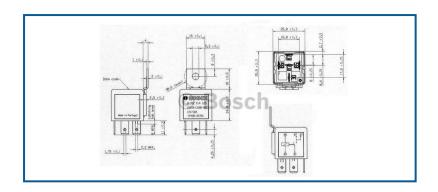


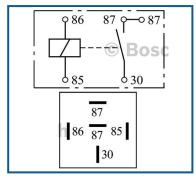
Replacement: 0 986 AH0 605

Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	X	X	250.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





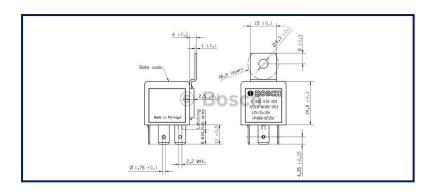


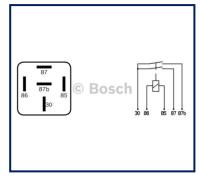
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Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	15 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







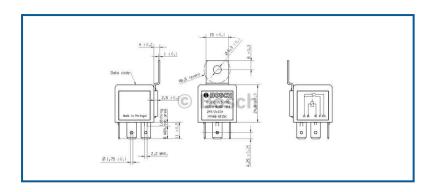
**Back to general overview** 

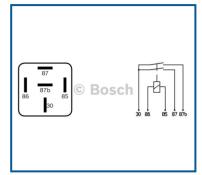


## Mini Relays 24 V, 2x15 A 0 332 015 002

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	2x15 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







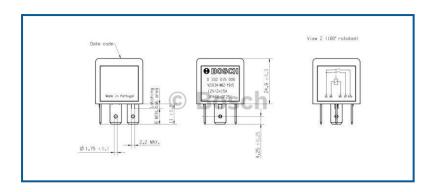
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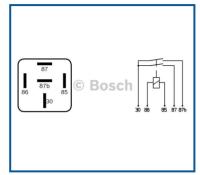


### Mini Relays 12 V, 2x15 A 0 332 015 006

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	100.000	2x15 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





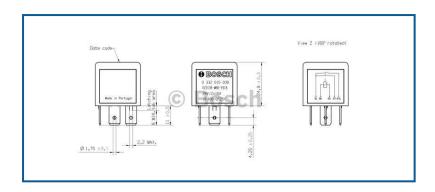


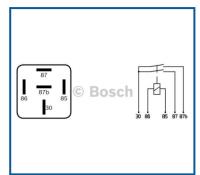
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	100.000	2x15 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





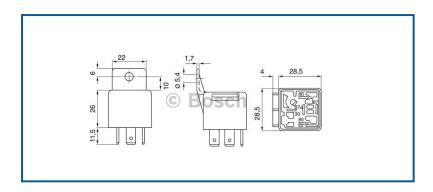


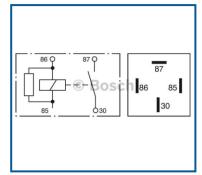
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	250.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







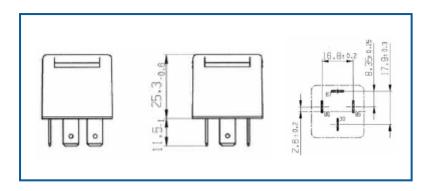
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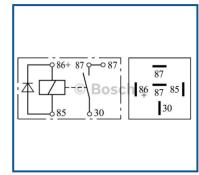


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	X	✓	50.000	50 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





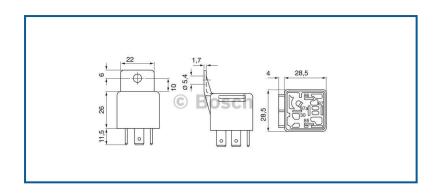


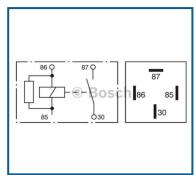
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Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	250.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







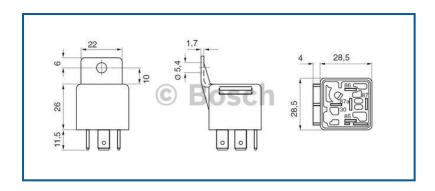
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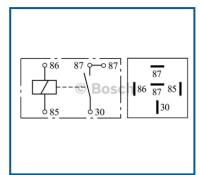


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	250.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







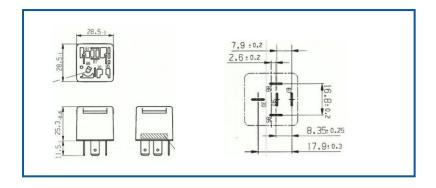
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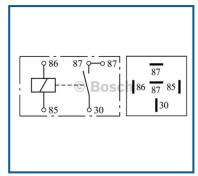


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	250.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







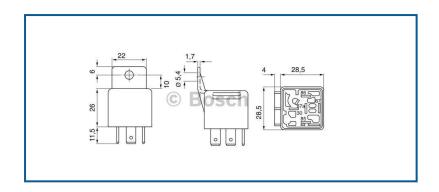
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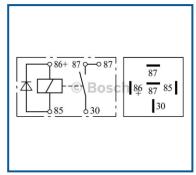


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	✓	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





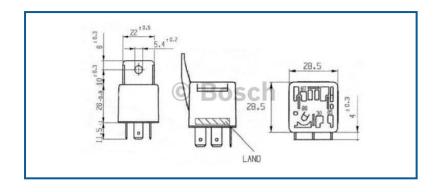


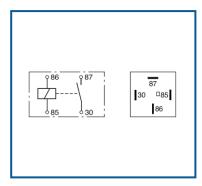
**Back to general overview** 



Change	Normal	Normal
over	close	open
	✓	

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	X	x	250.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







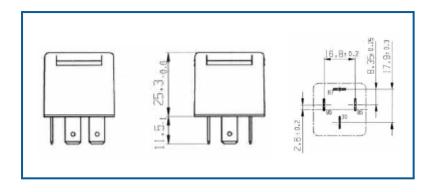
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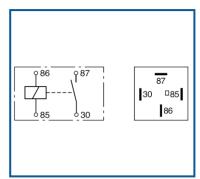


### Change Normal Normal over close open

### phased out part

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	250.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

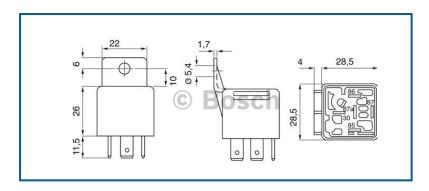


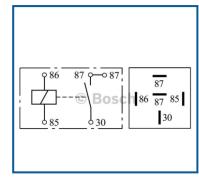
## Mini Relays 24 V, 20 A 0 332 019 203

Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	250.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

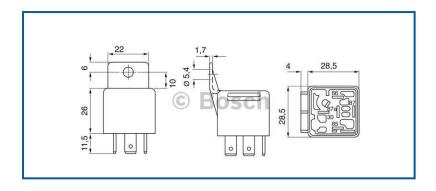


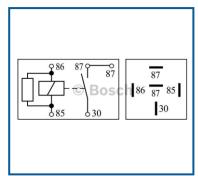
## Mini Relays 24 V, 30 A 0 332 019 204

Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	250.000	30 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







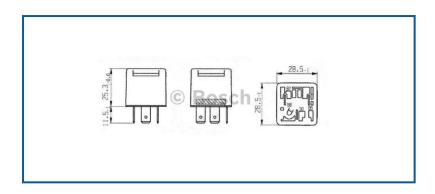
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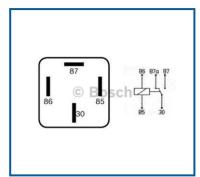


## Mini Relays 24 V, 20 A 0 332 019 205

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	X	x	250.000	20 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

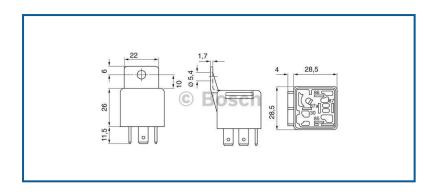


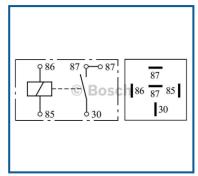
## Mini Relays 24 V, 20 A 0 332 019 213

Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	250.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





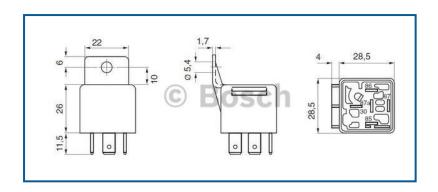


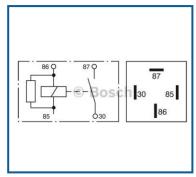
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	X	250.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





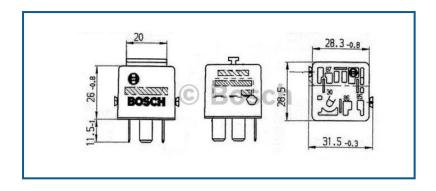


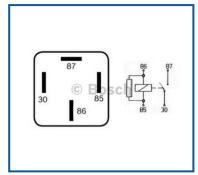
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	250.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







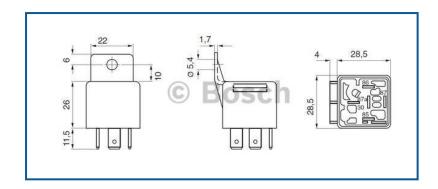
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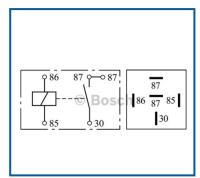


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	X	x	250.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





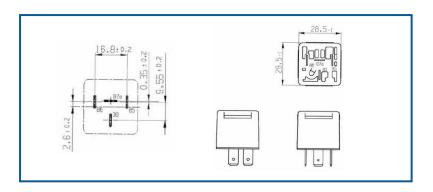


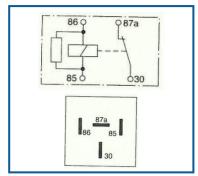
**Back to general overview** 



Change	Normal	Normal
over	close	open
	✓	

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	50.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







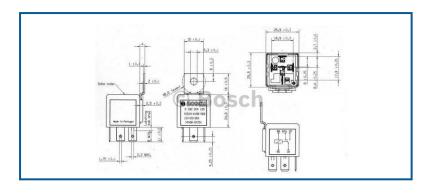
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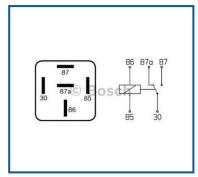


Replacement: 0 986 AH0 625

Change	Normal	Normal		
over	close	open		
✓				

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	250.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

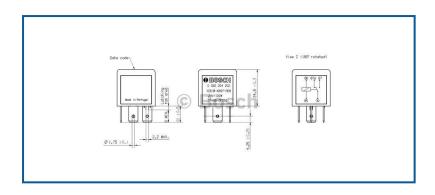


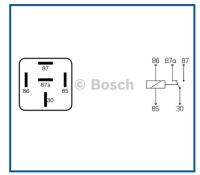
# Mini Relays 24 V, 20 A 0 332 204 202

Replacement: 0 986 AH0 615

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	250.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

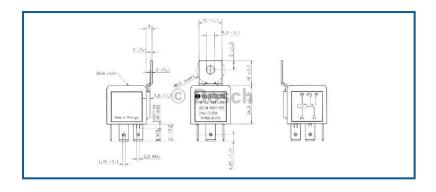


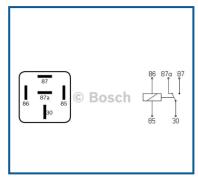
## Mini Relays 24 V, 20 A 0 332 204 203

Replacement: 0 986 AH0 613

Change	Normal	Normal		
over	close	open		
✓				

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	X	x	250.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





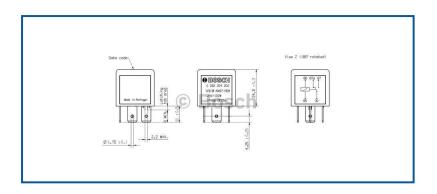


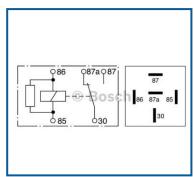
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	250.000	30/20 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





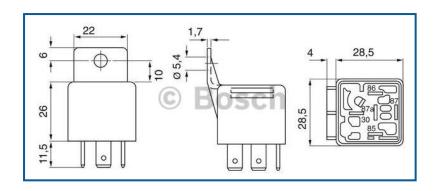


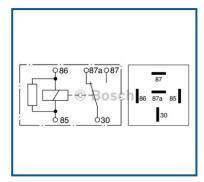
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	250.000	30/20 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





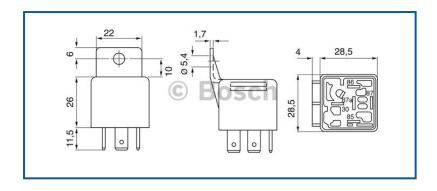


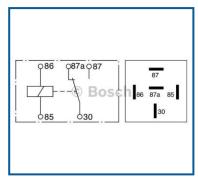
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	250.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





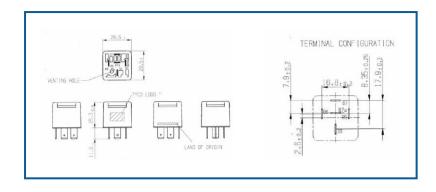


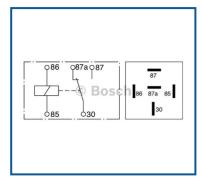
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	250.000	30/20 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





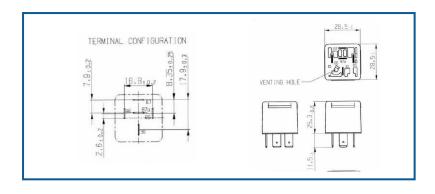


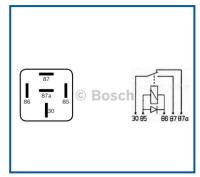
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	✓	250.000	30/20 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





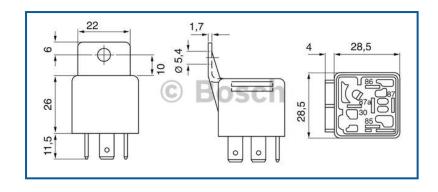


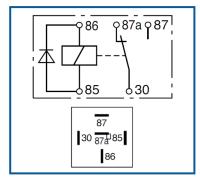
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	✓	250.000	30A / 20A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





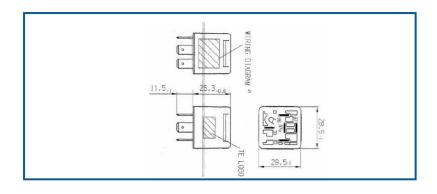


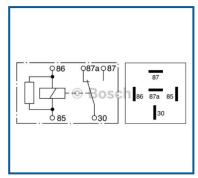
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	250.000	30A / 20A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





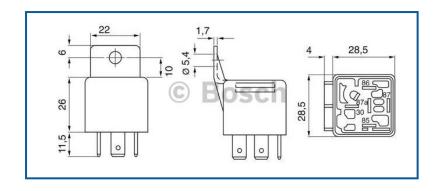


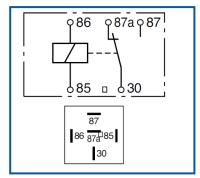
**Back to general overview** 



Change	Normal	Normal				
over	close	open				
✓						

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	250.000	20A/ 10A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





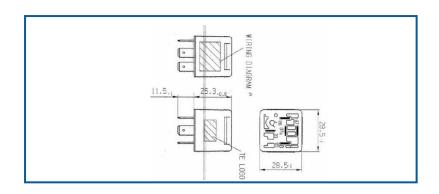


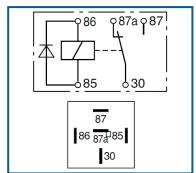
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	✓	250.000	20A/ 10A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





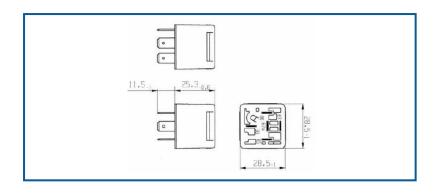


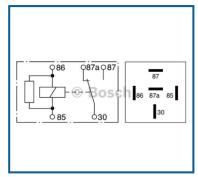
**Back to general overview** 



Change	Normal	Normal			
over	close	open			
✓					

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	250.000	20A/ 10A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





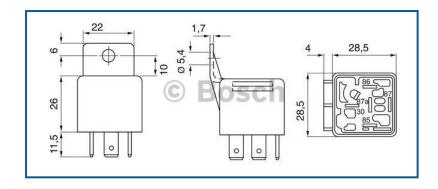


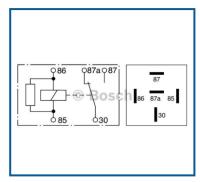
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	250.000	20A/ 10A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





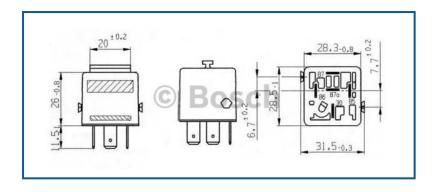


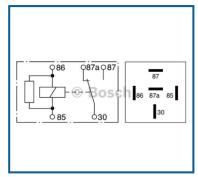
**Back to general overview** 



Change	Normal	Normal			
over	close	open			
✓					

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	250.000	20A / 10A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





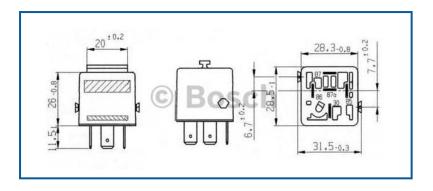


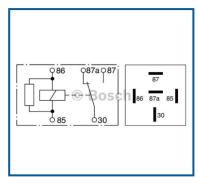
**Back to general overview** 



Change	Normal	Normal			
over	close	open			
✓					

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
T-BAR	✓	x	250.000	20 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







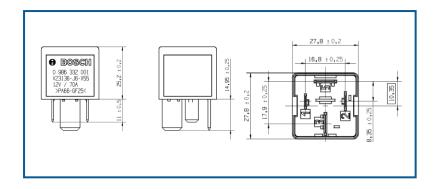
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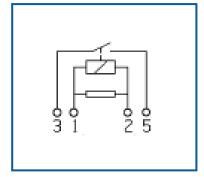


# Mini Relays 12 V, 70 A 0 986 332 001

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	250.000	45 A	12 V	4	Plastic housing	-40°C + 85°C	IP5K4	IP20







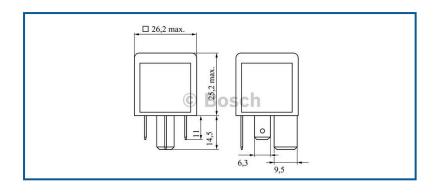
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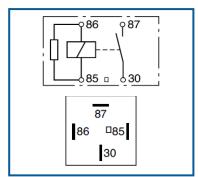


## Mini Relays 12 V, 70 A 0 986 332 002

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	X	100.000	70 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







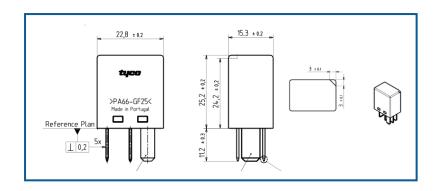
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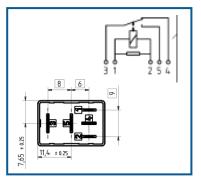


## Mini Relays 12 V, 10 A 0 986 332 021

Change	Normal	Normal		
over	close	open		
✓		✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	10 A	12 V	5	Plastic housing	-40°C +125°C	IP5K4	IP20







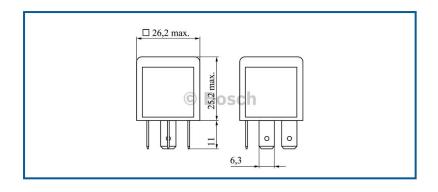
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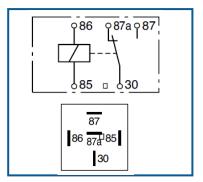


## Mini Relays 12 V, 40A / 60A 0 986 332 022

Change	Normal	Normal		
over	close	open		
✓				

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	100.000	40A / 60A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







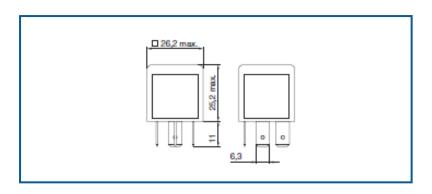
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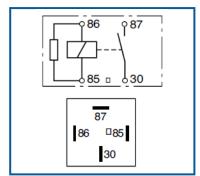


## Mini Relays 12 V, 60 A 0 986 332 030

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	60 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







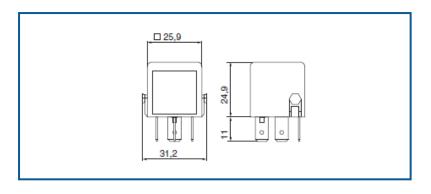
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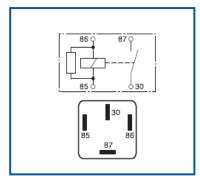


## Mini Relays 12 V, 40 A 0 986 332 040

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	40 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







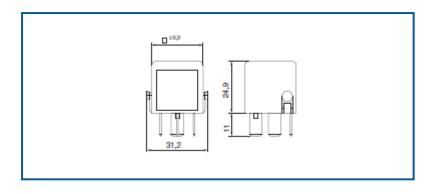
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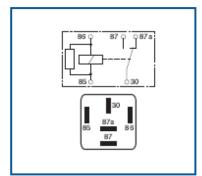


# Mini Relays 12 V, 40 A 0 986 332 041

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	40 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







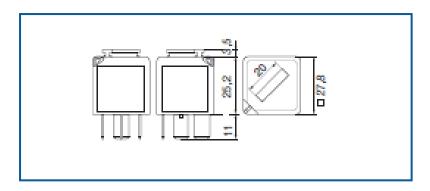
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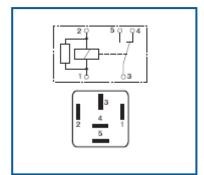


## Mini Relays 12 V, 40/60 A 0 986 332 053

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	40 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







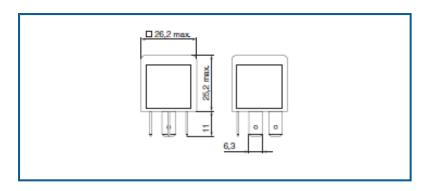
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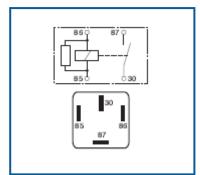


## Mini Relays 12 V, 40 A 0 986 332 071

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	40 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







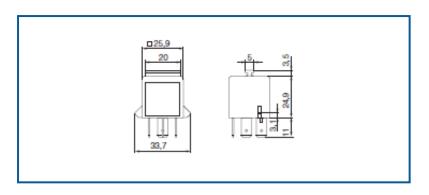
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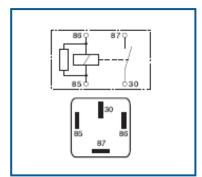


## Mini Relays 12 V, 40 A 0 986 332 072

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	40 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

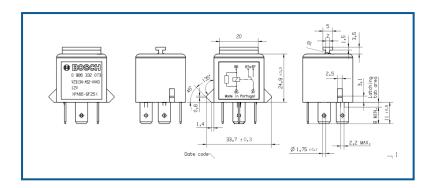


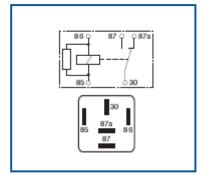
## Mini Relays 12 V, 40/60 A 0 986 332 073

Change	Normal	Normal
over	close	open
✓		

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	40 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







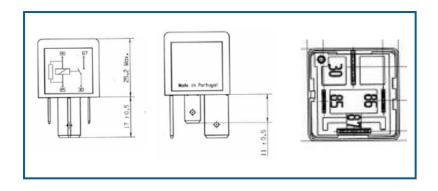
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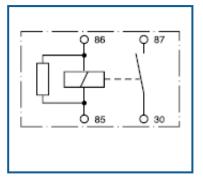


## Mini Relays 24 V, 50 A 0 986 332 080

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	200.000	50 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





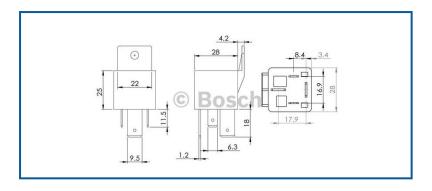


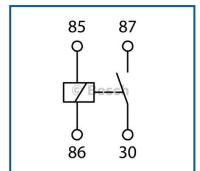
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	70 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





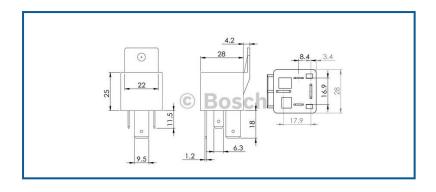


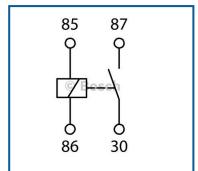
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	30 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





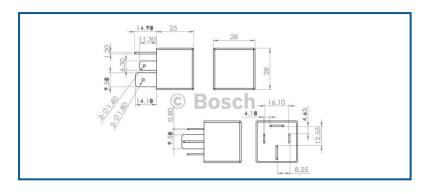


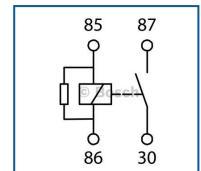
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	70 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





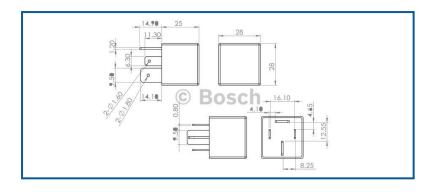


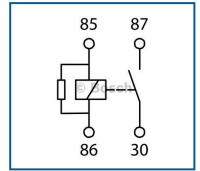
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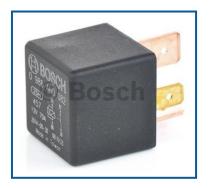


Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	30 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





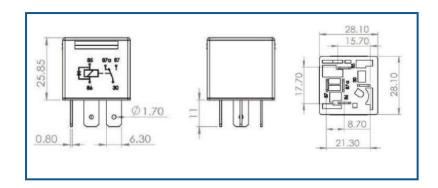


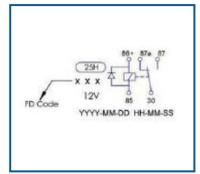
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	✓	50.000	50 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





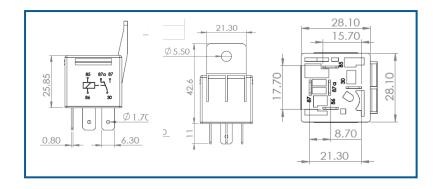


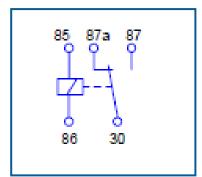
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	X	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





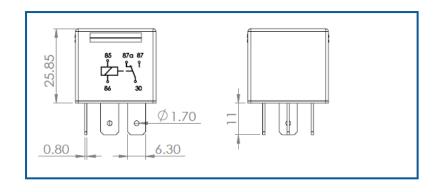


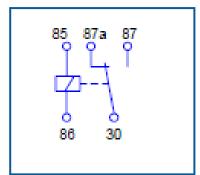
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







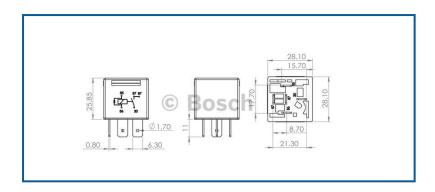
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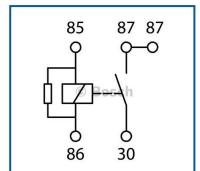


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	20 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





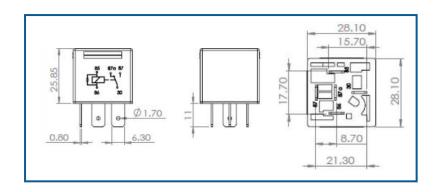


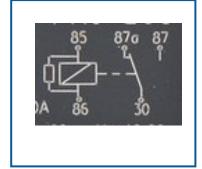
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





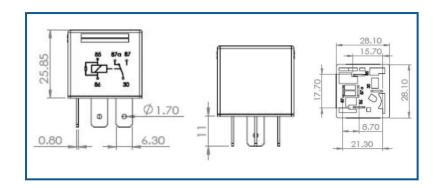


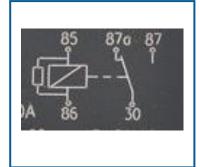
**Back to general overview** 



Change	Normal	Normal
over	close	Open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	75.000	20 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







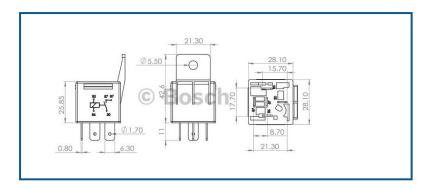
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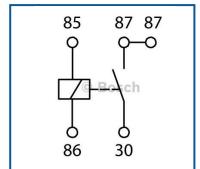


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







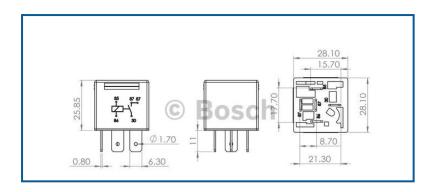
**Back to general overview** 

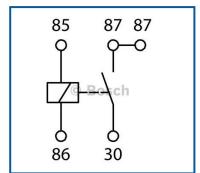


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







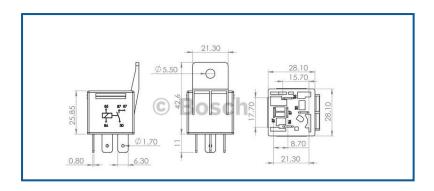
**Back to general overview** 

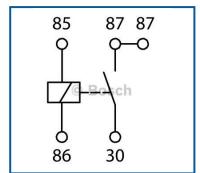


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	X	100.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





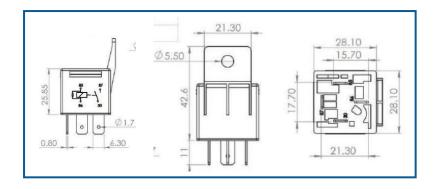


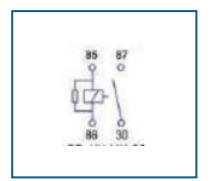
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	100.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







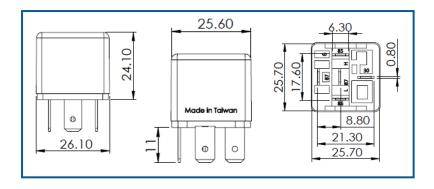
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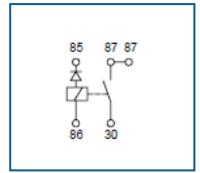


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	X	✓	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







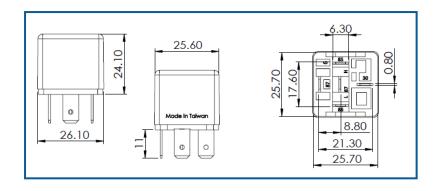
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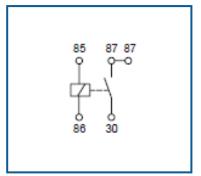


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	X	X	100.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







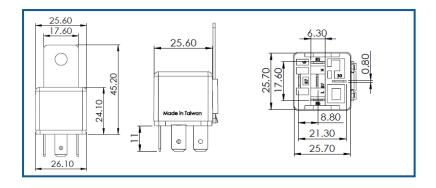
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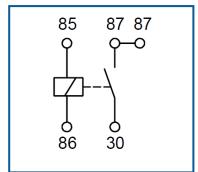


Change	Normal	Normal
over	close	open
		✓

2 x 87 terminal

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	X	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





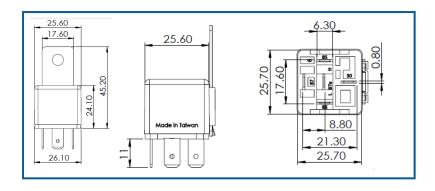


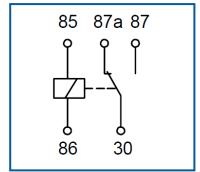
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	X	100.000	20/30 A	6 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





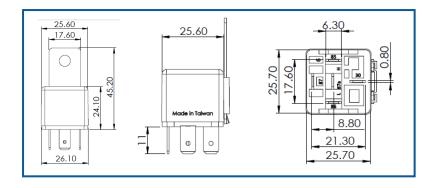


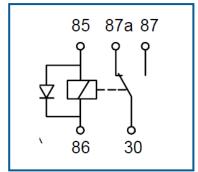
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	✓	100.000	10 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







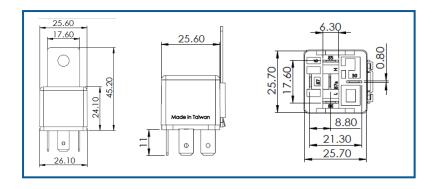
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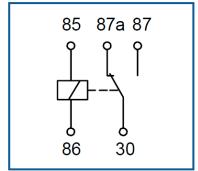


Replacement for: 0 332 204 203

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20



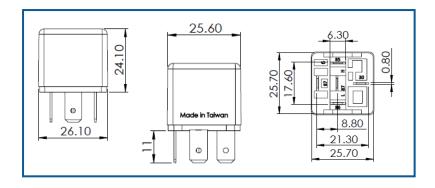


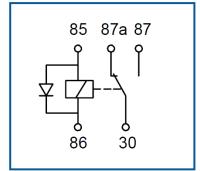




Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	✓	100.000	20/10 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





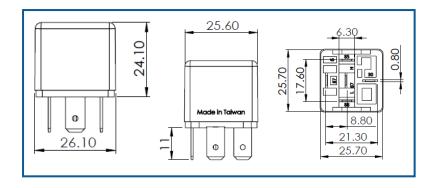


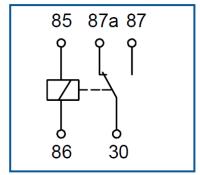
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	100.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





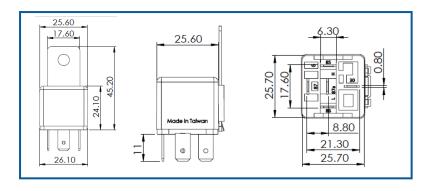


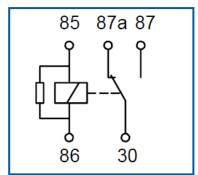
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	100.000	20/10 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





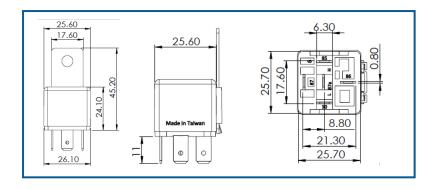


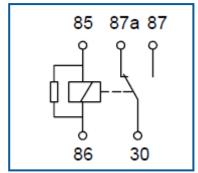
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	X	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





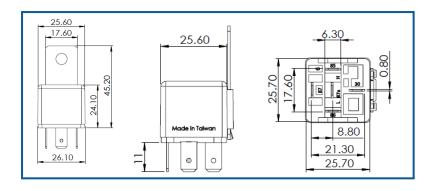


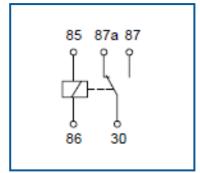
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	X	x	100.000	30 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





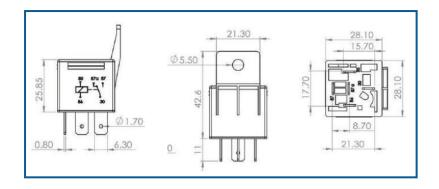


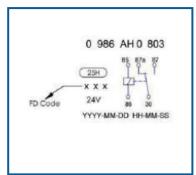
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





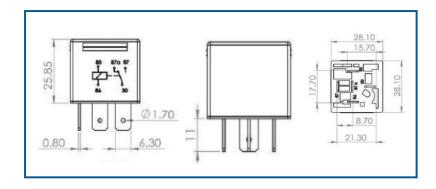


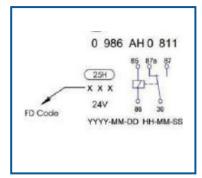
**Back to general overview** 



Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	100.000	20 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 



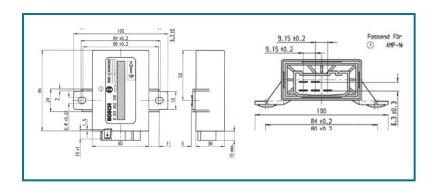
# Starter Relays

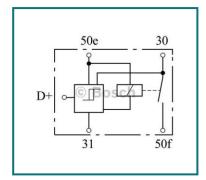
Slide 108 to 109



## Starter Relays 12 V, 30 A 0 331 802 100

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x		30 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





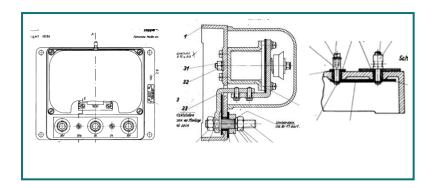


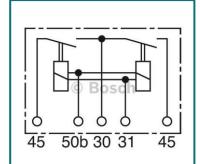


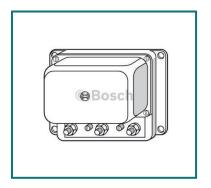
### Double-Starting Relay 24 V 0 333 500 001

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Dimensions	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	-	232 x 180 x 45	24 V	Plastic housing	-40 +100°C	IP5K4	IP20









# Battery Relays

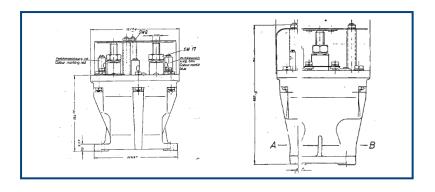
Slide 111 to 115

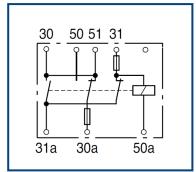


#### Battery Relays 12V, 75 A 0 333 300 003

Change	Normal	Normal
over	close	open
✓		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	20.000	75 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





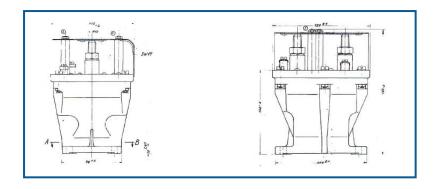


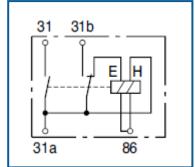


#### Battery Relays 12V, 60 A 0 333 301 007

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	20.000	60 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





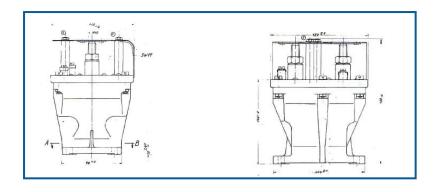


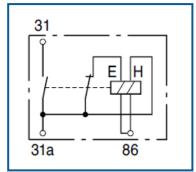


#### Battery Relays 24V, 200 A 0 333 301 009

Change	Normal	Normal		
over	close	open		
		✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	20.000	200 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





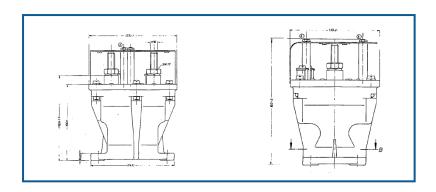


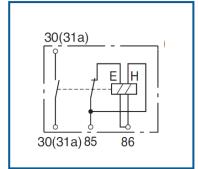


#### Battery Relays 24V, 300 A 0 333 301 010

Change	Normal	Normal		
over	close	open		
		✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	20.000	300 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







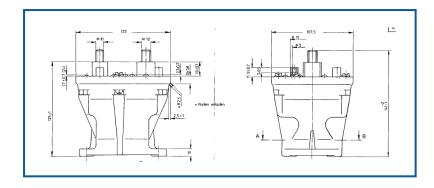
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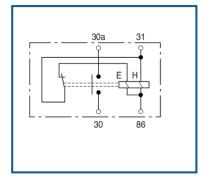


#### Battery Relays 24V, 200 A 0 333 301 015

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	20.000	200 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 



# Lamp Relays

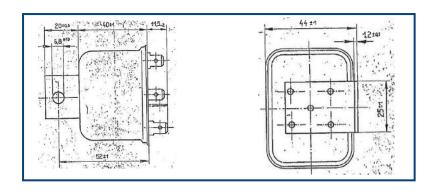
Slide 117 to 119

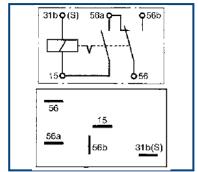


#### Headlamp Relays 12V 0 332 515 009

Change	Normal	Normal
over	close	open
✓		✓

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	-	150 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







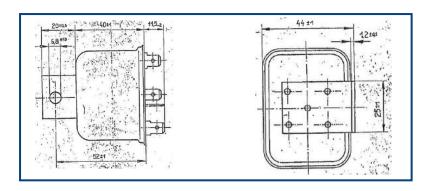
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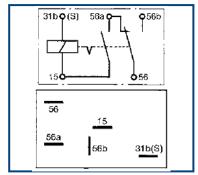


#### Headlamp Relays 24V 0 332 515 012

Change	Normal	Normal
over	close	open
✓		✓

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	X	-	150 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







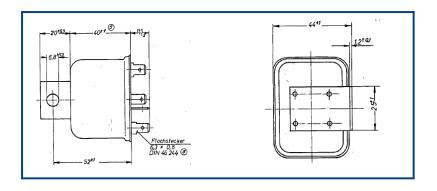
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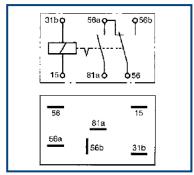


#### Headlamp Relays 12V 0 332 515 022

Change	Normal	Normal
over	close	open
✓		✓

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	-	150 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 



#### Power Relays

Slide 121 to 144

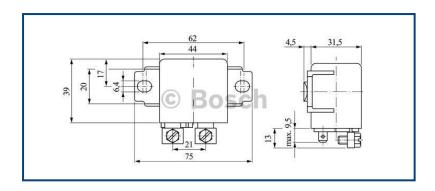


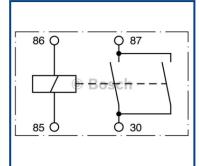
Replaced by: 0 332 002 168

Normal close	Normal open
	✓

Pre contact

Mounting bracket		Diode		Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	125.000	75 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

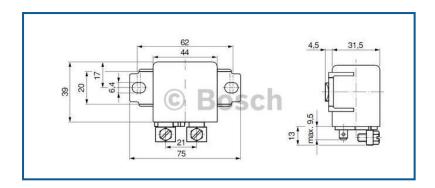


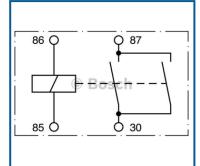
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Change	Normal	Normal
over	close	open
		✓

Pre contact

Mounting bracket		Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	X	x	100.000	75 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





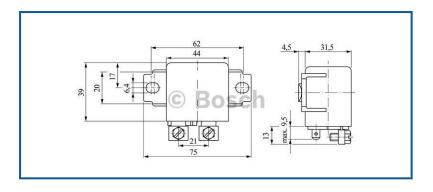


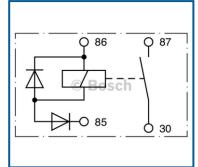
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage		Temperature range	Degree of protection housing	Degree of protection connection
<b>√</b>	x	✓	100.000	75 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

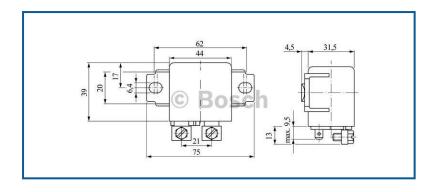


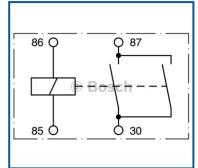
Replaced by: 0 332 002 168

Normal close	Normal open
	✓

Pre contact

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
<b>√</b>	x	x	100.000	75 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







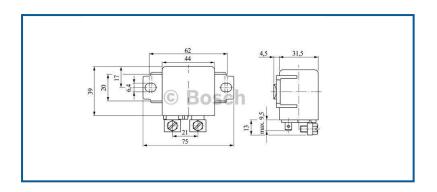
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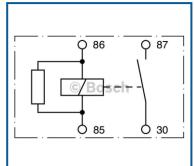


Replaced by: 0 332 002 168

Normal close	Normal open
	✓

Mounting bracket	Resistor	Diode		Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	125.000	75 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





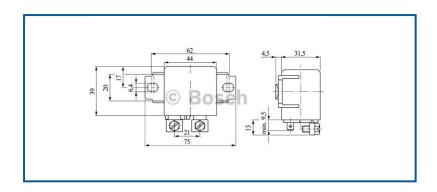


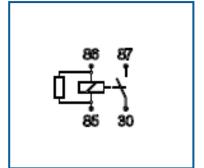
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket		Diode	Life durability	Current	Voltage	Housing type		Degree of protection housing	Degree of protection connection
✓	✓	x	75.000	75 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

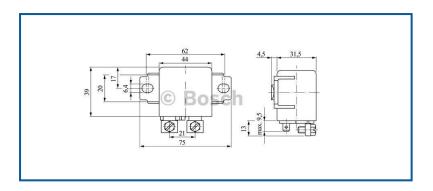


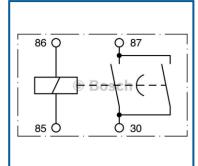
Replaced by: 0 332 002 258

Normal close	Normal open
	✓

Pre contact

Mounting bracket		Diode	Life durability		Voltage		Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	50 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

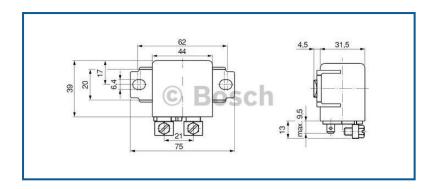


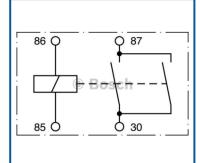
Replaced by: 0 332 002 258

Normal close	Normal open
	✓

Pre contact

Mounting bracket		Diode	Life durability	Current	Voltage		Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	100.000	50 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





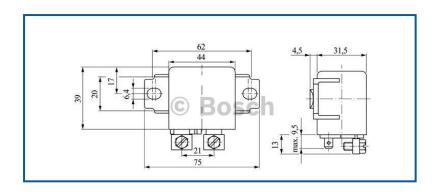


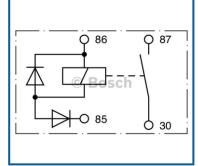
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	✓	50.000	50 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







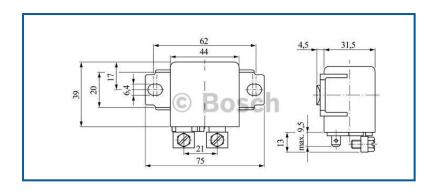
**Back to general overview** 

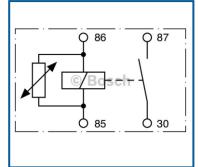


Replaced by: 0 332 002 258

Normal close	Normal open
	✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	<b>√</b>	x	50.000	50 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





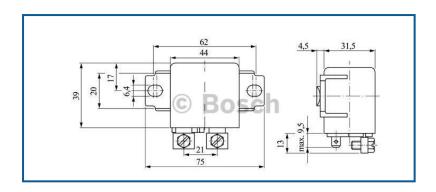


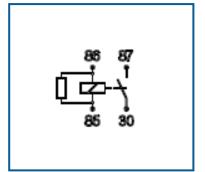
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
<b>✓</b>	✓	x	50.000	50 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







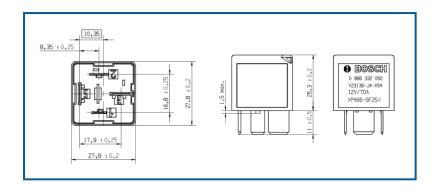
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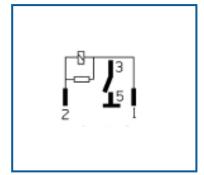


# Power Relays 12 V, 150 A 0 986 332 050

Change	Normal	Normal
over	close	open
		✓

Mounting bracket		Diode	Life durability		Voltage	Housing type		Degree of protection housing	Degree of protection connection
x	✓	x	100.000	70 A	12 V	Plastic housing	- 40 °C + 85° C	IP5K4	IP20







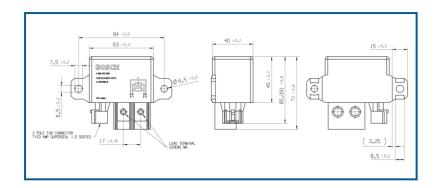
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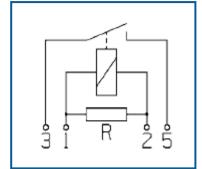


#### Power Relays 12 V, 150 A 0 986 332 086

Change	Normal	Normal
over	close	open
		✓

Mounting bracket		Diode	Life durability		Voltage	Housing type		Degree of protection housing	Degree of protection connection
✓	<b>√</b>	x	100.000	150 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







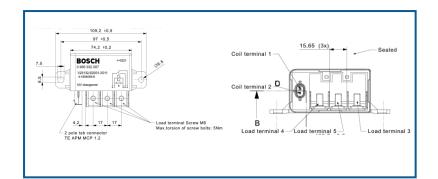
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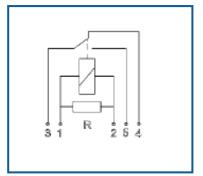


#### Power Relays 12 V, 150 A 0 986 332 087

Change	Normal	Normal
over	close	open
✓		

Mounting bracket		Diode	Life durability	Current		Housing type		Degree of protection housing	Degree of protection connection
✓	✓	x	100.000	150 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

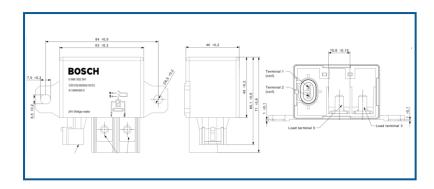


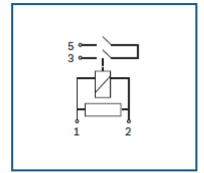
#### Power Relays 24 V, 150 A 0 986 332 091

Change	Normal	Normal
over	close	open
		✓

#### 2 x make contact

Mounting bracket		Diode						Degree of protection housing	Degree of protection connection
✓	✓	x	100.000	150 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







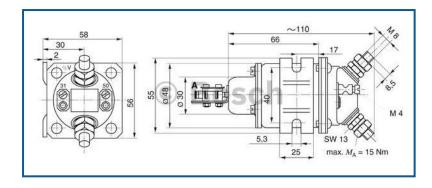
**Back to general overview** 

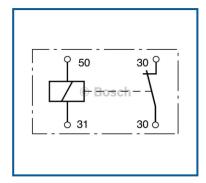


#### Power Relay 12 V, 80 A 0 333 006 004

Change	Normal	Normal
over	close	open
	✓	

Mounting bracket		Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	80 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







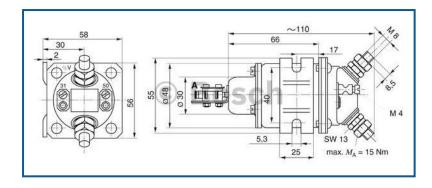
**Back to general overview** 

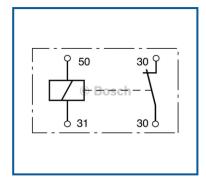


#### Power Relay 24 V, 80 A 0 333 006 006

Change	Normal	Normal
over	close	open
	✓	

Mounting bracket	Resistor	Diode	Life durability			Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	80 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

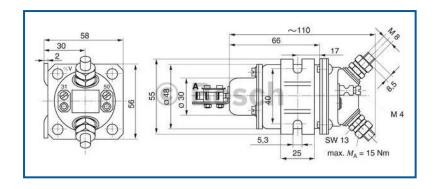


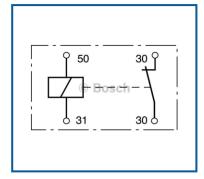
#### Power Relay 24 V, 100 A 0 333 006 008

Change	Normal	Normal
over	close	open
	✓	

#### phased out part

Mounting bracket	Resistor	Diode		Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	100 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





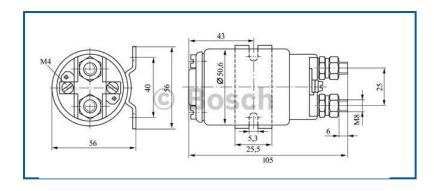


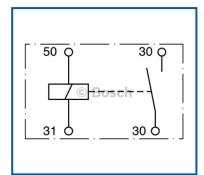
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
<b>✓</b>	-	-	100.000	150 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







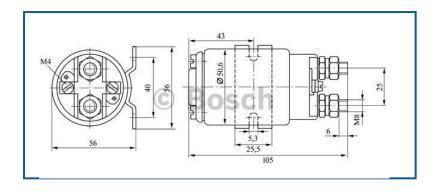
**Back to general overview** 

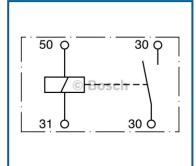


#### Power Relay 12 V, 150 A 0 333 009 004

Change	Normal	Normal
over	close	open
		✓

Mounting bracket		Diode	Life durability		Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	150 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





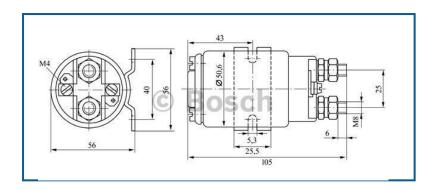


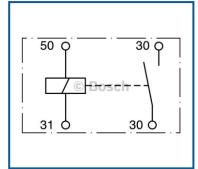
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability		Voltage		Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	150 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





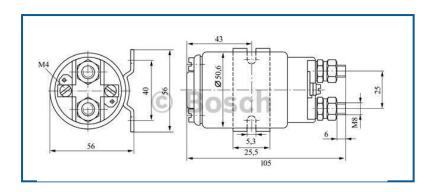


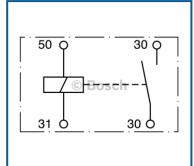
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode			Voltage		Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	150 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







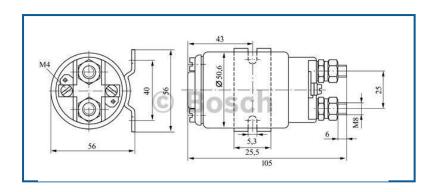
**Back to general overview** 

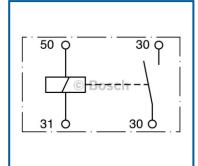


#### Power Relay 12 V, 150 A 0 333 009 010

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode		Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	150 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





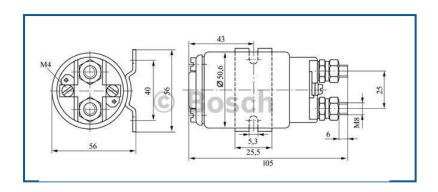


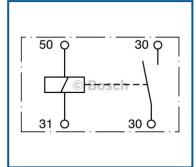
**Back to general overview** 



Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type		Degree of protection housing	Degree of protection connection
✓	-	-	100.000	150 A	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

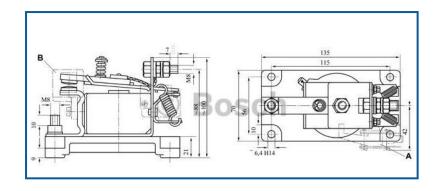


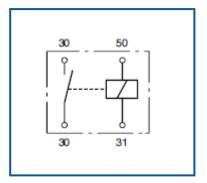
## Power Relay 80 V, 230 A 0 333 200 013

Change Normal Normal over close open

#### phased out part

Mounting bracket	Resistor	Diode		Current	Voltage		Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	100.000	230 A	80 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 



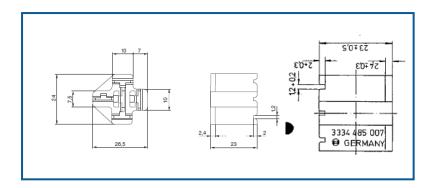
#### Sockets

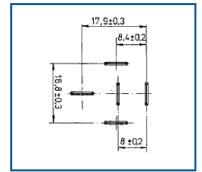
Slide 146 to 152



#### Socket 3 334 485 007

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	-	-	12 V/24 V	Plastic housing	-40 +100°C	IP5K4	IP20





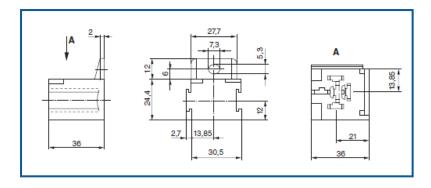


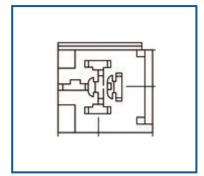
**Back to general overview** 



#### Socket 3 334 485 008

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	-	-	12V/24V	Plastic housing	-40 +100°C	IP5K4	IP20





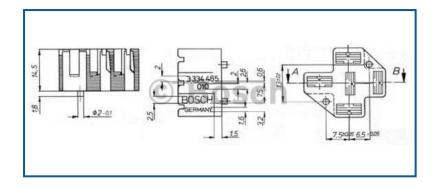


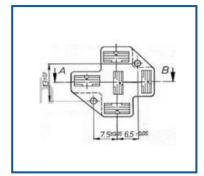
**Back to general overview** 



#### Socket 3 334 485 010

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	-	-	12/24 V	Plastic housing	-40 +100°C	IP5K4	IP20





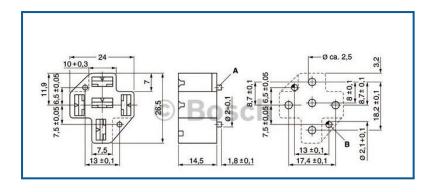


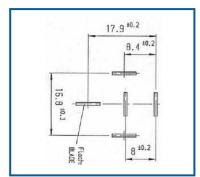
**Back to general overview** 



#### Socket 3 334 485 041

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	-	-	12/24 V	Plastic housing	-40 +100°C	IP5K4	IP20





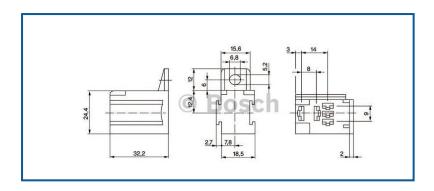


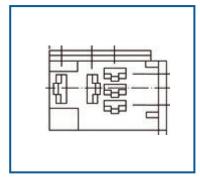
**Back to general overview** 



#### Socket 3 334 485 045

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
<b>✓</b>	x	X	-	-	12/24 V	Plastic housing	-40 +100°C	IP5K4	IP20





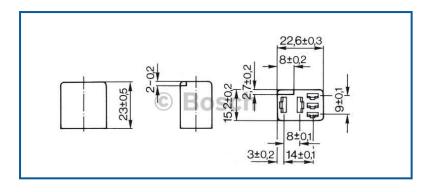


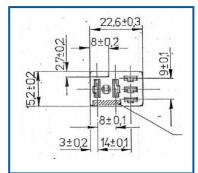
**Back to general overview** 



### Socket 3 334 485 046

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	,	-	12/24 V	Plastic housing	-40 +100°C	IP5K4	IP20





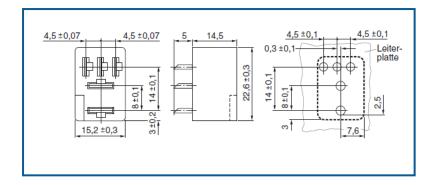


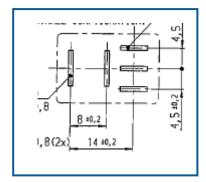
**Back to general overview** 



### Socket 3 334 485 049

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	-	-	12/24 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 



# Hazard-warningsignal flasher

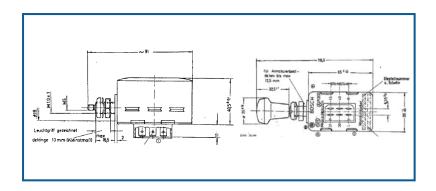
Slide 154 to 156

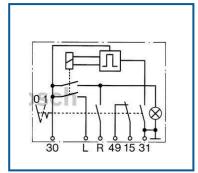


#### Hazard-warning-signal flasher 24V 0 336 900 000

Replaced by F 011 T00 012

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	-	8x 21 W	24 V	metal housing	-40 +100°C	IP5K4	IP20





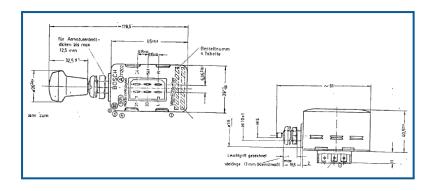


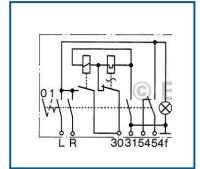


#### Hazard-warning-signal flasher 12V 0 336 851 004

replaced by F 011 T00 011

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperatu re range	Degree of protection housing	Degree of protection connectio
x	x	x	-	8x 21 W	12 V	metal housing	-40 +100°C	IP5K4	IP20





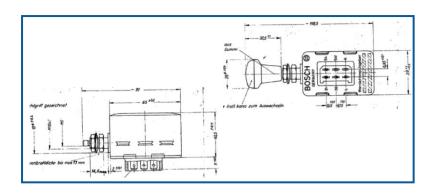


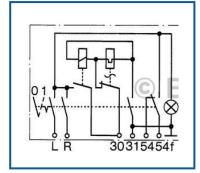


#### Hazard-warning-signal flasher 12V 0 336 851 008

Replaced by F 011 T00 011

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	-	8x 21 W	12 V	metal housing	-40 +100°C	IP5K4	IP20









#### Hot-wire Flashers

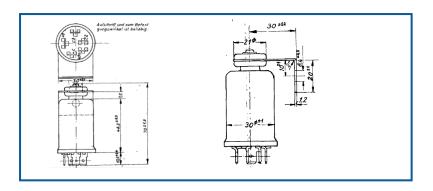
Slide 158 to 171

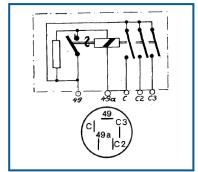


## Turn-Signal Flasher 12 V 0 336 208 001

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
<b>✓</b>	<b>√</b>	x	-	2+1+ 1x21 W	12 V	Metal housing	-40 +100°C	IP5K4	IP20





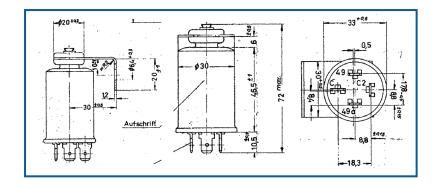


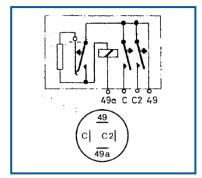


## Turn-Signal Flasher 12 V 0 336 207 006

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	-	2+ 1x21 W	12 V	Metal housing	-40 +100°C	IP5K4	IP20





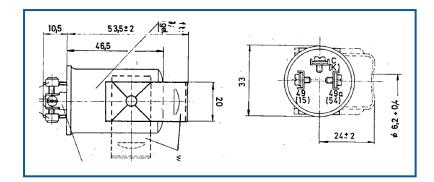


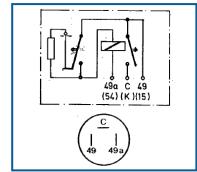


## Turn-Signal Flasher 6 V 0 336 206 004

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	<b>√</b>	x	-	2 x 21 W	12 V	Metal housing	-40 +100°C	IP5K4	IP20





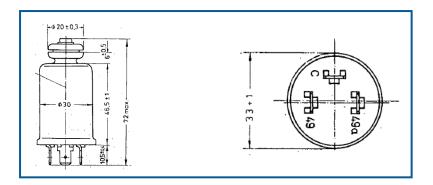


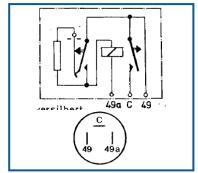


## Turn-Signal Flasher 6 V 0 336 206 003

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	-	2 x 21 W	6 V	Metal housing	-40 +100°C	IP5K4	IP20





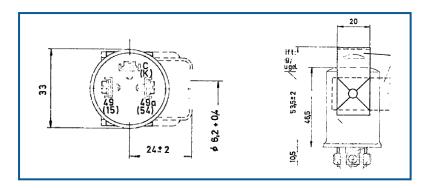


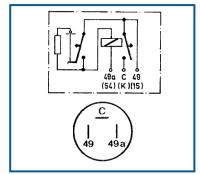


## Turn-Signal Flasher 6 V 0 336 203 006

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	-	2 x 18 W	6 V	Metal housing	-40 +100°C	IP5K4	IP20





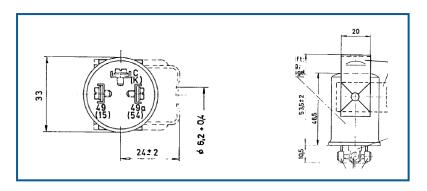


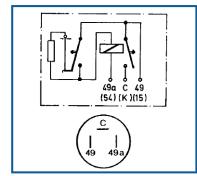


## Turn-Signal Flasher 12 V 0 336 203 005

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	<b>✓</b>	x	-	2 x 18 W	12 V	Metal housing	-40 +100°C	IP5K4	IP20





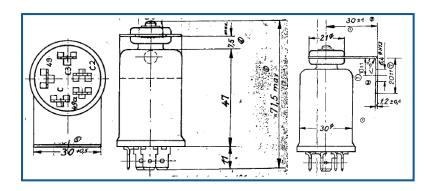


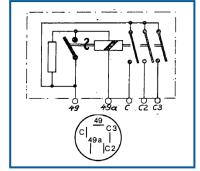


## Turn-Signal Flasher 12 V 0 336 202 001

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	-	2+1+ 1x 18 W	12 V	Metal housing	-40 +100°C	IP5K4	IP20





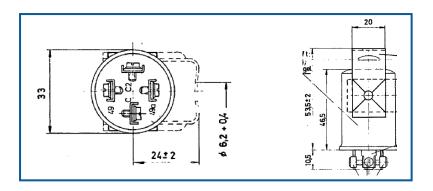


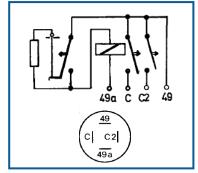


### Turn-Signal Flasher 24 V 0 336 200 051

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	-	2+ 1x 18 W	24 V	Metal housing	-40 +100°C	IP5K4	IP20





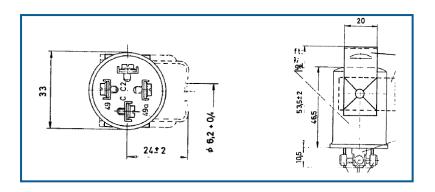


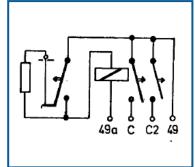


## Turn-Signal Flasher 12 V 0 336 200 049

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	x	-	2+ 1x 18 W	12 V	Metal housing	-40 +100°C	IP5K4	IP20







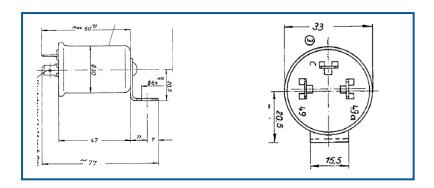
**Back to general overview** 

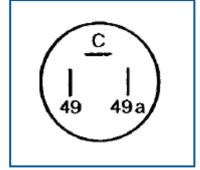


### Turn-Signal Flasher 24 V 0 336 200 047

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	-	3 x 18 W	24 V	Metal housing	-40 +100°C	IP5K4	IP20





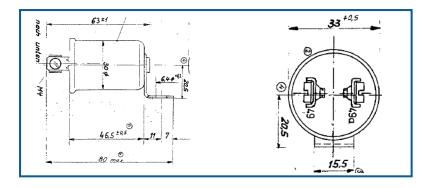


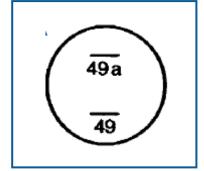


### Turn-Signal Flasher 6 V 0 336 101 004

phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	x	x	-	1 x 15W/18W	6 V	Metal housing	-40 +100°C	IP5K4	IP20

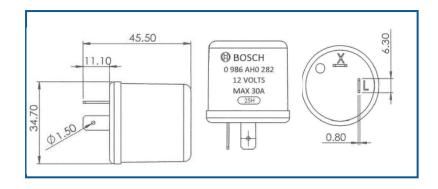


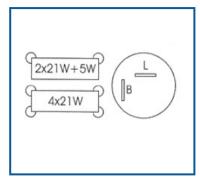






Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	200 h	400 W	12 V DC	Plastic housing	- 30°C +85°C	IP5K4	IP20



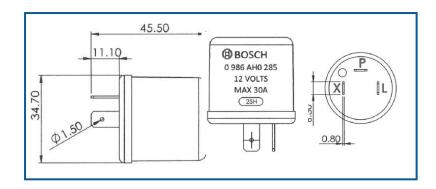


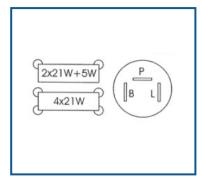


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Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	200 h	400 W	12 V DC	Plastic housing	- 30°C + 85°C	IP5K4	IP20



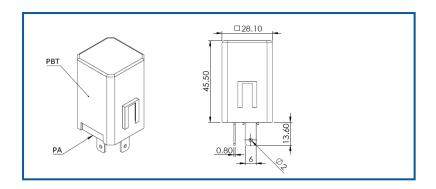




**Back to general overview** 



Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	x	x	200 h	250 W	12 V DC	Plastic housing	- 30 °C + 85 °C	IP5K4	IP20



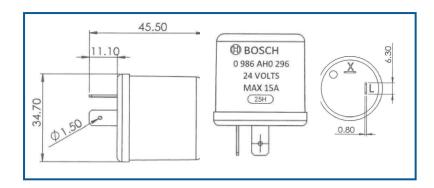
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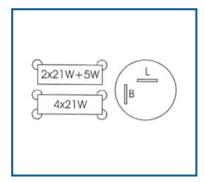


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Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	200 h	400 W	24 V DC	Plastic housing	- 30 °C + 85 °C	IP5K4	IP20

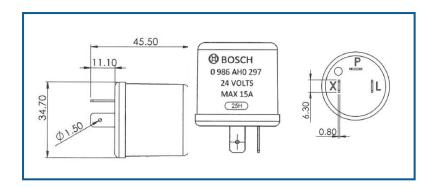


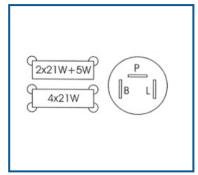






Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	200 h	400 W	24 V DC	Plastic housing	- 30 °C + 85 °C	IP5K4	IP20

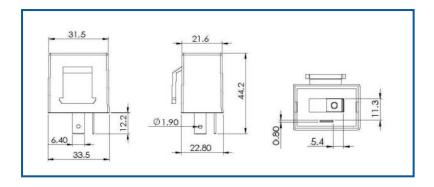








Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	> 200 h	6 x 10 W	12 V DC	Plastic housing	- 20 °C + 60 °C	IP5K4	IP20

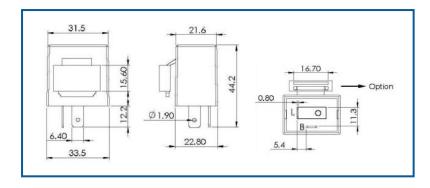


12V 2P 10W\*2+3.4W (10W\*2+A.P.) Silent Flasher





Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	> 200 h	6 x 10 W	12 V DC	Plastic housing	- 20°C + 60°C	IP5K4	IP20



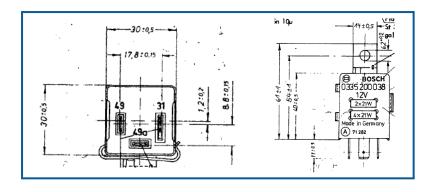


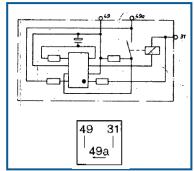




#### Electronic hazard-warning/turn-signal flashers 12 V 0 335 200 038

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	<b>√</b>	x	-	2 (4)x 21 W + 0-4 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20



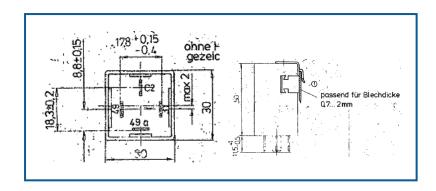


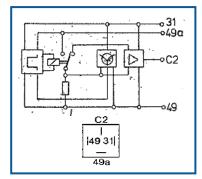




#### Electronic hazard-warning/turn-signal flashers 12 v 0 335 200 041

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	✓	-	2+ 1(6) x 21 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





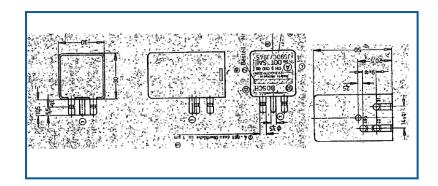


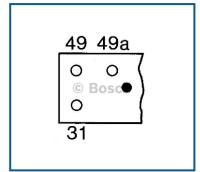


#### Electronic hazard-warning/turn-signal flashers 12 V 0 335 200 007

phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	w/w	w/w	-	2(4) x 21W + 2W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







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#### Others

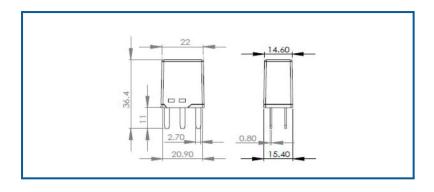
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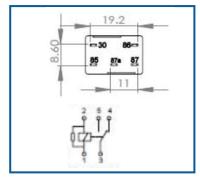


#### Micro Relay (GM Footprint) 12 V,30/10 A 0 986 AH0 113

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	30/10 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20





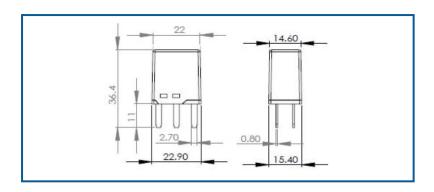


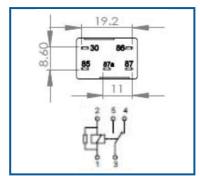


#### Micro Relay (GM Footprint) 24 V, 10/5 A 0 986 AH0 114

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	10/5 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







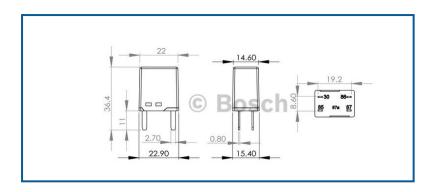
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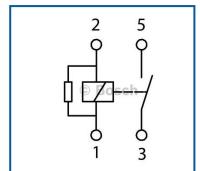


#### Micro Relay (GM Footprint) 12 V, 30 A 0 986 AH0 115

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







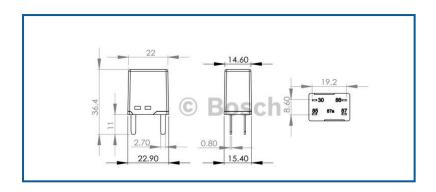
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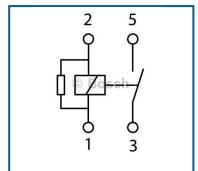


#### Micro Relay (GM Footprint) 24 V, 10 A 0 986 AH0 116

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	10 A	24 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





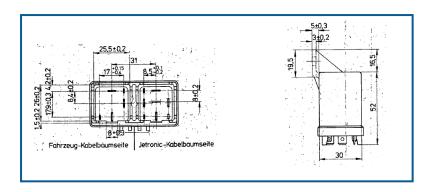


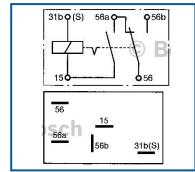
**Back to general overview** 



#### Fuel pump Relays 12V, 15 A 0 332 514 121

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	15 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





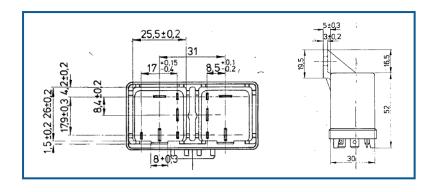


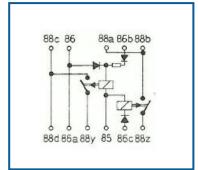
**Back to general overview** 



#### Fuel pump Relays 12V, 15 A 0 332 514 120

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	15 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

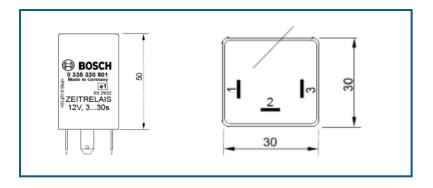


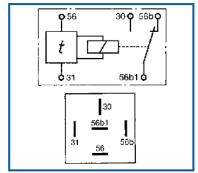
## Time-lag Relay 12 V, 10A / 15A 0 335 330 801

Change Normal Normal over close open

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	-	-	-	10 A / 15 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







**Back to general overview** 

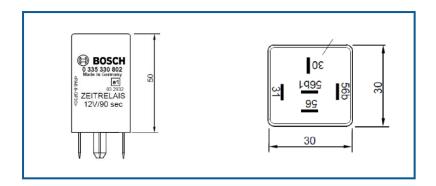


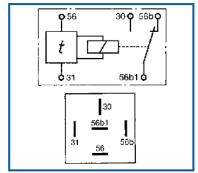
## Time-lag Relay 12 V, 20 A / 25 A 0 335 330 802

Change	Normal	Normal
over	close	open
✓		

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	-	-	-	20 A / 25 A	12 V	Plastic housing	-40 +100°C	IP5K4	IP20







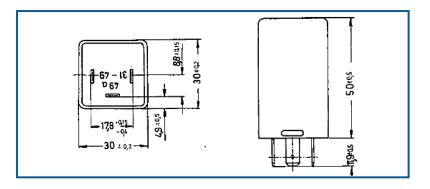
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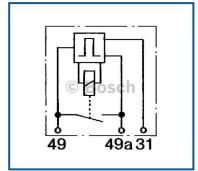


#### Pulse Generator 24 V 0 335 323 001

#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	-	-	-	50 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







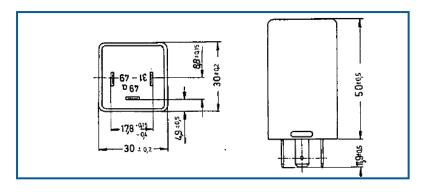
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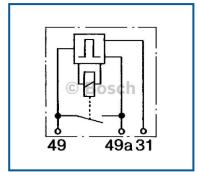


### Pulse Generator 24 V 0 335 323 003

Replaced by F 026 T00 031

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	-	-	-	50 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20







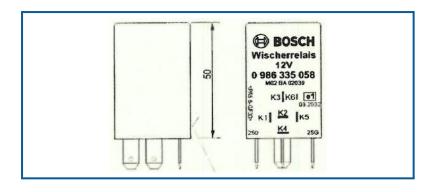
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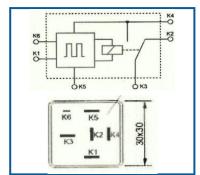


#### Pulse Generator 12 V, 20 A 0 986 335 058

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	x	75.000	20 A	12 V	6	Plastic housing	-40 +100°C	IP5K4	IP20







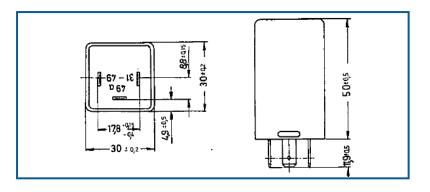
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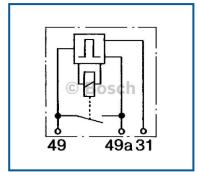


### Pulse Generator 12 V 0 335 322 001

Replaced by F 026 T00 030

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	-	-	-	50 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





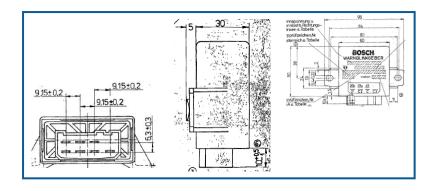


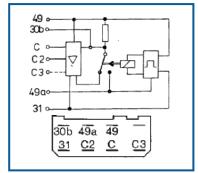
**Back to general overview** 



phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2+1+1(8)x 21 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





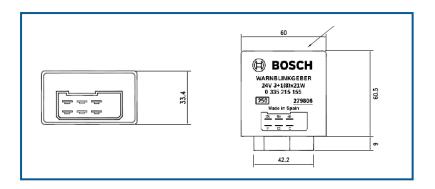


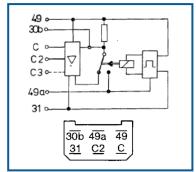
**Back to general overview** 



phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	-	-	-	3+1(8)x 21 W + 2-4W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20

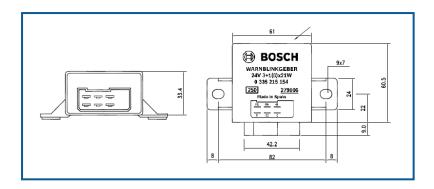


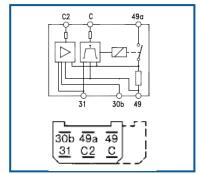






Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	3 + 1(8)x 21 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20



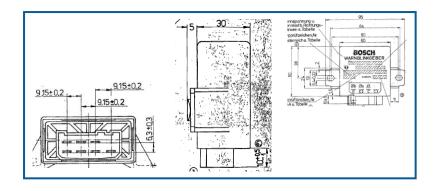


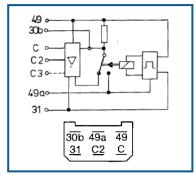




#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2+1(6)x 21 W + 1,2-2W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20



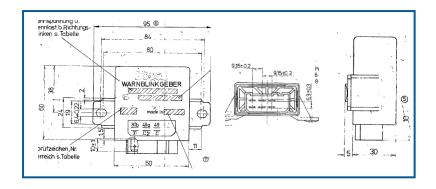


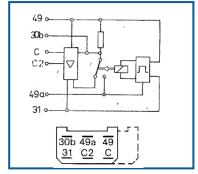




#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	7	-	-	2+1(6)x 21 W + 5 W (10W)	24 V	Plastic housing	-40 +100°C	IP5K4	IP20



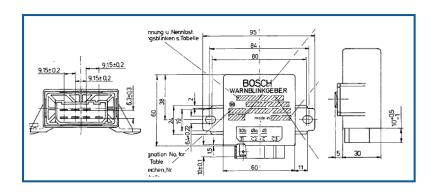


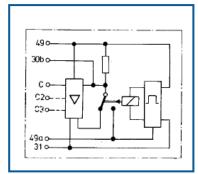


**Back to general overview** 



Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2+1(6)x 21 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20



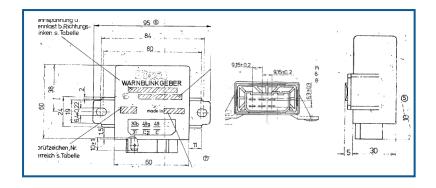


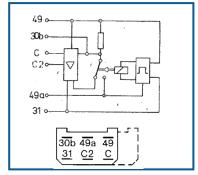




#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	4(8)x 21 W + 2-4 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20



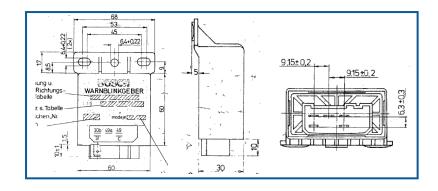


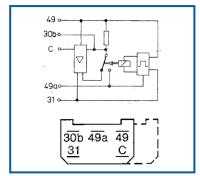




phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	3(6)x 21 W + 2-4W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20





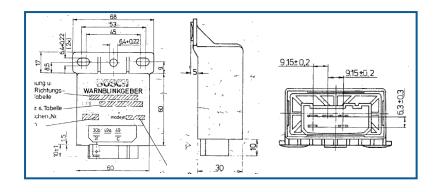


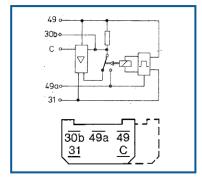
**Back to general overview** 



#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2(4)x 21 W + 2-4W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20



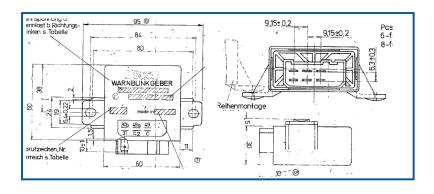


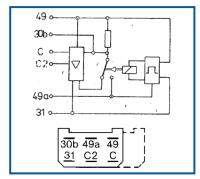




#### phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2 + 1(6)x 18 W	24 V	Plastic housing	-40 +100°C	IP5K4	IP20



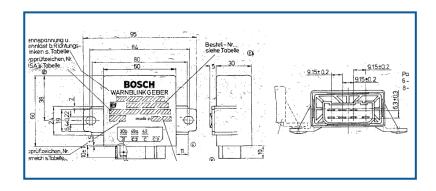


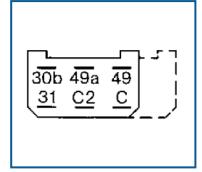




phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
<b>✓</b>	-	-	-	2+1+1(8)x 21 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20



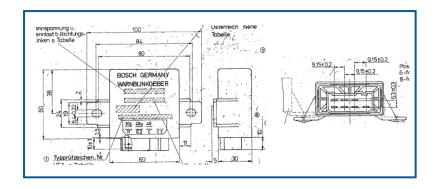


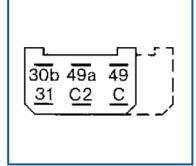




phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	3+ 1(8)x 21 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20



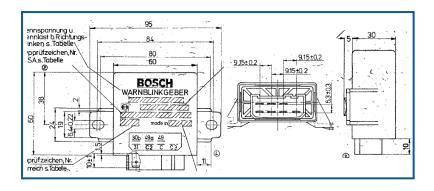


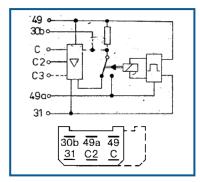




phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2+ 1(6)x 21 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





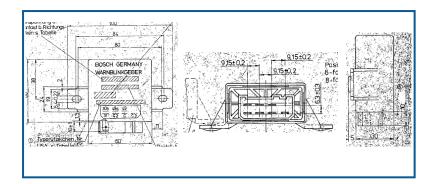


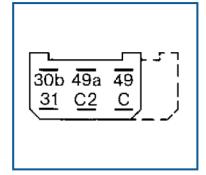


### Electronic hazard-warning/turn-signal flashers 12 V 0 335 210 143

phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2+ 1(6)x 21W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20





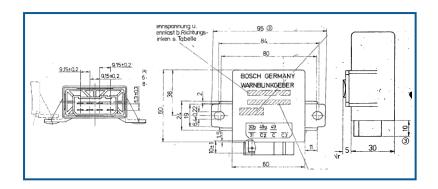


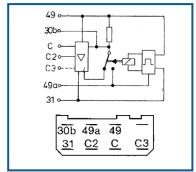


#### Electronic hazard-warning/turn-signal flashers 12 V 0 335 210 063

phased out part

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2+1+1 (8)x18 W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20



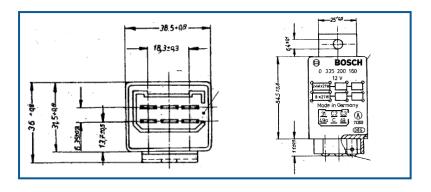


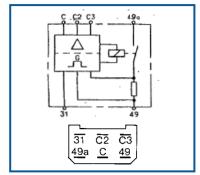




#### Electronic hazard-warning/turn-signal flashers 12 V 0 335 200 160

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	-	-	-	2+1 + 1(8)x 21W+ 1,2 - 2W	12 V	Plastic housing	-40 +100°C	IP5K4	IP20



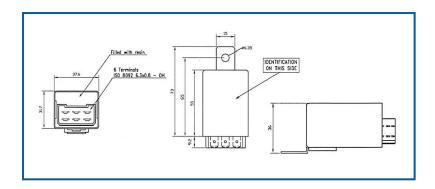


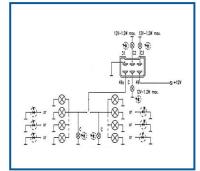




#### Electronic hazard-warning/turn-signal flashers 12 V 0 335 200 161

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
✓	✓	✓	-	2+1+1x21W (8x21W)	12 V DC	Plastic housing	- 30°C + 70°C	IP5K4	IP20



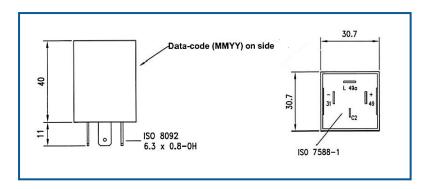


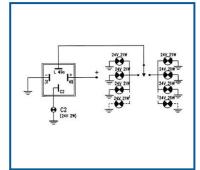




#### Electronic hazard-warning/turn-signal flashers 24 V 0 335 215 168

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	-	-	-	3+1x21W (8x21W)	24 V DC	Plastic housing	- 30°C +70°C	IP5K4	IP20



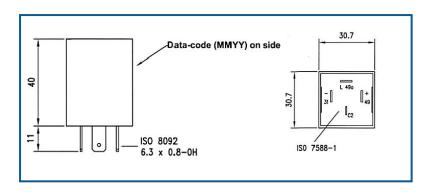


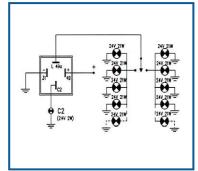




#### Electronic hazard-warning/turn-signal flashers 24 V 0 335 215 169

Mounting bracket	Resistor	Diode	Life durability	Load	Voltage	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	-	-	-	4+1x21W (10x21W)	24V DC	Plastic housing	-30°C +70°C	IP5K4	IP20





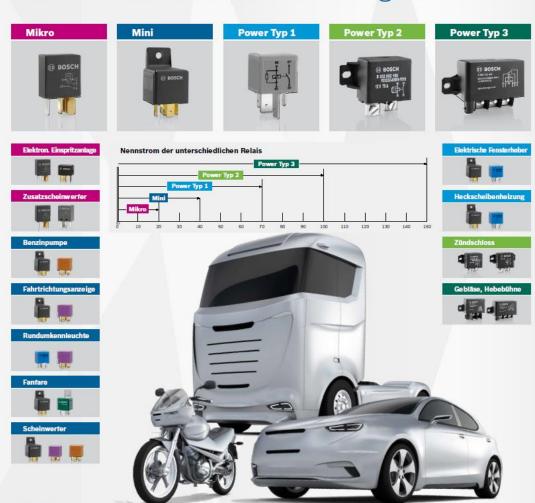




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#### Bosch-Relais: Verwendungsübersicht





Sachnummer	Spannung V	Schaltstrom A	Lasche 1)	Typ 2) S/DS/W/Ö	Bauteil 3 R/D/o/V	Schaltbild / Anschlussbild
0 332 011 007	12	30	0	S	R	8 / 23
0 986 AHO 090	12	20	0	S	R	8 / 23
0 986 AHO 091	12	20	N	S	R	8 / 23
0 332 201 107	12	30	0	W	R	10 / 24
0 332 207 402	24	10	0	W	D	9 / 24
0 332 207 405	24	10	0	W	R	10 / 24
0 332 019 150	12	50	L	S, 2x87	0	1 / 19
0 332 019 110	12	50	Ĺ	S	R	3 / 20
0 332 019 110	12	50	Ö	S, 2x87	0	1 / 19
0 332 019 157	12	40	L	S, 2401	0	2 / 20
	24	40	- L	S, 2x87	0	1 / 19
0 332 019 203 0 332 019 205	24	40	0	S, ZXOI		2 / 20
					0	
0 332 109 011	12	20	0	0	R	7 / 22
0 332 209 150	12	50	L	W	0	4 / 21
0 332 209 151	12	50	0	W	0	4 / 21
0 332 209 152	12	50	0	W	D	6 / 21
0 332 209 203	24	40	L	W	0	4 / 21
0 332 209 204	24	40	0	W	D	6 / 21
0 332 209 206	24	40	0	W	R	5 / 21
0 332 209 211	24	40	0	W	0	4 / 21
0 332 204 202	24	20	Ö	W. kl. B.	0	4 / 21
	24	20	L	W, kl. B.	0	4 / 21
0 332 204 203						
0 332 204 204	24	20	0	W, kl. B.	D	6 / 21
0 986 AH0 080	12	70	L	S	0	2 / 20
0 986 AHO 081	24	50	L	S	0	2 / 20
0 986 AH0 082	12	70	0	S	R	3 / 20
0 986 AH0 083	24	50	0	S	R	3 / 20
0 332 002 168	12	75	L	S	R	3 / 25
0 332 002 156	12	75	L	S	D	12 / 25
0 332 002 258	24	50	L	S	R	3 / 25
0 332 002 256	24	50	- L	S	D	12 / 25
0 986 332 086	12	150	Ĺ	S	R	8 / 26
0 986 332 087	12	150	L	W	R	10 / 26
0 986 332 087	24	150	L	DS	R	13 / 27
	-	100	-	50	- 0	10 / 21
Sockel für Minire 3 334 485 007	12/24		0			13
3 334 485 008	12/24		Ĺ			14
				100		177.7
3 334 485 041	12/24		zum Löten			15
Sockel für Mikro	relais					
3 334 485 045	12/24		L			16
3 334 485 046	12/24		0			17
3 334 485 049	12/24		zum Löten			18
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# Micro Relays

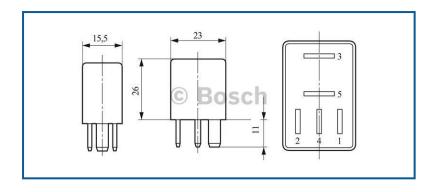
Slide 11 to 30

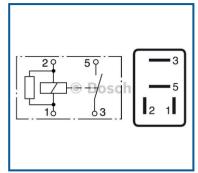


## Micro Relays 12 V, 30 A 0 332 011 007

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	200.000	30 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







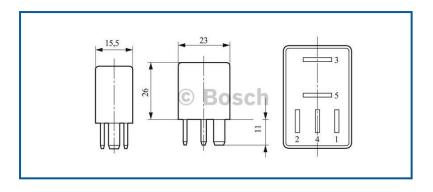
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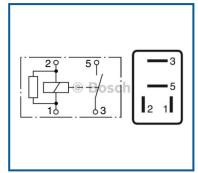


### Micro Relays 12 V, 20 A 0 332 017 300

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	250.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





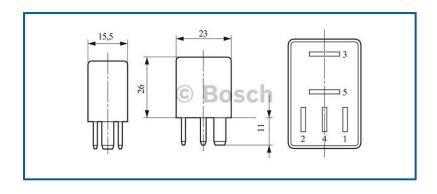


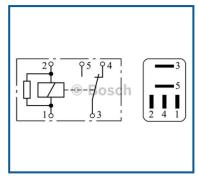


## Micro Relays 12 V, 30/10 A 0 332 201 107

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	200.000	30/10 A	12 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







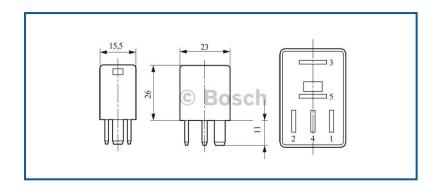
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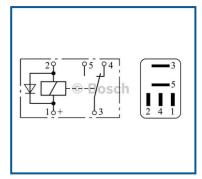


### Micro Relays 24 V, 10/5 A 0 332 207 402

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	x	✓	250.000	10/5 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







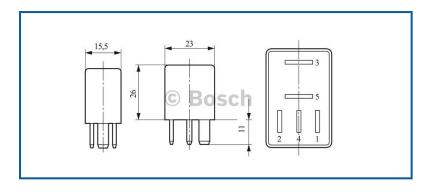
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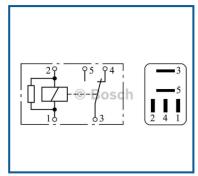


## Micro Relays 24 V, 10/5 A 0 332 207 405

Change	Normal	Normal
over	close	open
✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	250.000	10/5 A	24 V	5	Plastic housing	-40 +100°C	IP5K4	IP20







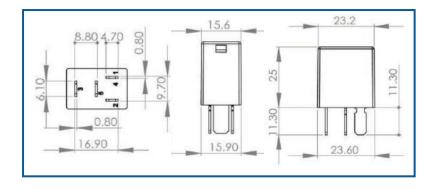
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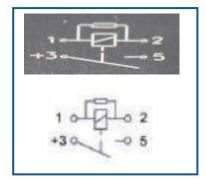


#### Micro Relays 12 V, 20 A 0 986 AH0 300

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20





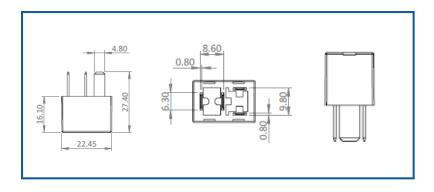


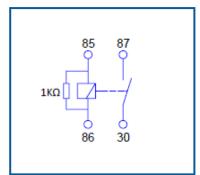


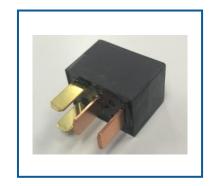
## Nano Relays 12 V, 20 A 0 986 AH0 090

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	x	100.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







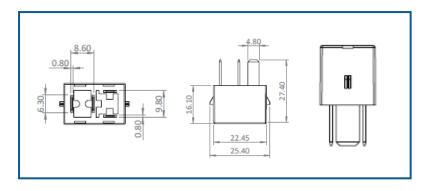
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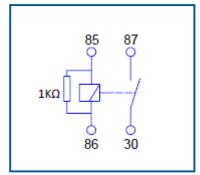


#### Nano Relays 12 V, 20 A 0 986 AH0 091

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







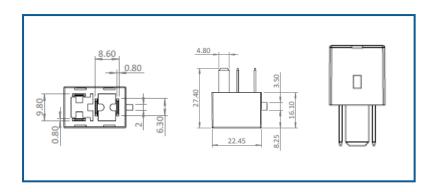
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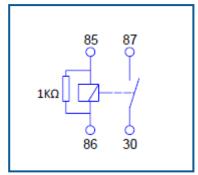


#### Nano Relays 12 V, 20 A 0 986 AH0 092

Change	Normal	Normal
over	close	open
		✓

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
x	✓	x	100.000	20 A	12 V	4	Plastic housing	-40 +100°C	IP5K4	IP20







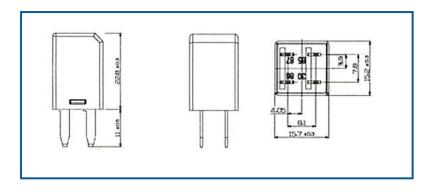
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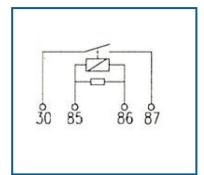


### Pico Relay 12 V, 30 A 0 986 AH0 093

Change	Normal	Normal		
over	close	open		
		✓		

Mounting bracket	Resistor	Diode	Life durability	Current	Voltage	Number of Pins	Housing type	Temperature range	Degree of protection housing	Degree of protection connection
X	✓	X	100.000	20 A	12 V	4	Plastic housing	-40 +125°C	IP5K4	IP20







**Zurück zur Gesamtübersicht** 

