

## Relays

### Micro relays

Characteristic quantities		
Rated voltage (load and excitation circuit)	12 V	24 V
Operating voltage	8...16 V	17...27 V
Ambient temperature	-40...+100 °C	-40...+100 °C
Response voltage (at 20 °C)	≤ 8 V	≤ 17 V
Release voltage (at 20 °C)	≥ 1,5 V	≥ 3 V
Response time	≤ 10 ms	≤ 10 ms
Release time	≤ 15 ms	≤ 15 ms
Contact material	Silver tin oxide <sup>1)</sup>	Silver tin oxide
Voltage drop at NO contact in as-new condition	≤ 50 mV at 10 A	≤ 40 mV at 5 A
Voltage drop at NO contact after specified switching time	≤ 100 mV at 10 A	≤ 75 mV at 5 A
Voltage drop at NC contact in as-new condition	≤ 50 mV at 10 A	≤ 40 mV at 5 A
Voltage drop at NC contact after specified switching time	≤ 200 mV at 10 A	≤ 150 mV at 5 A
Degree of protection for housing and terminals, general (refer to Page 5)	IP 20	IP 20
Degree of protection for receptacle housing with connector installation position at bottom (refer to Page 5)	IP 5K4	IP 5K4

<sup>1)</sup> Hard silver for changeover relay, order number 0 332 207 304.

# Relays

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### Make relay 12 V

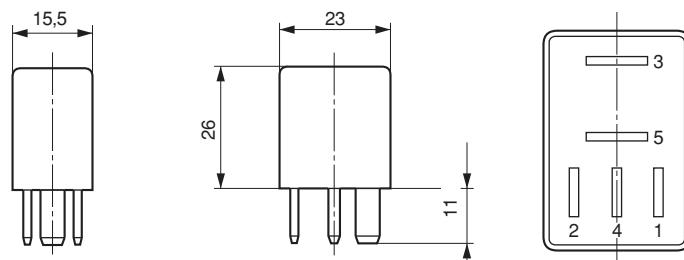
**0 332 011 007**

#### Technical data

Resistance load <sup>1)</sup> - Make contact	A/thousand	30/ $\geq$ 100	22/ $\geq$ 200
Motor load <sup>2)</sup> - NO contact	A/A/Thousand	65/17/ $\geq$ 200	
Lamp load <sup>1)</sup> - NO contact	A/Thousand	17/ $\geq$ 150	10/ $\geq$ 200
Exciter circuit total resistance	$\Omega$		75 $\pm$ 6

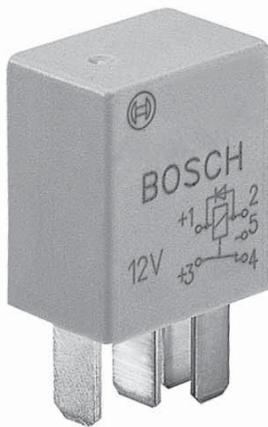
<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

#### Dimensional drawing

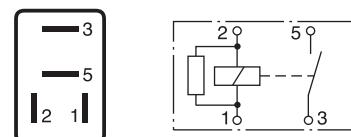


Blade terminal size to DIN 46 244, similar to ISO 8092: Terminal 1 and 2 (4): 4.8 x 0.8 mm; Terminal 3 and 5: 6.3 x 0.8 mm

#### Figure



#### Connection and circuit diagram



Comparison of terminal designations		
Micro relay	Mini relay	Polarity
1	86	+
2	85	-
3	30	+
4	87a	
5	87	

## Relays

### Micro relays

#### Make relay 12 V

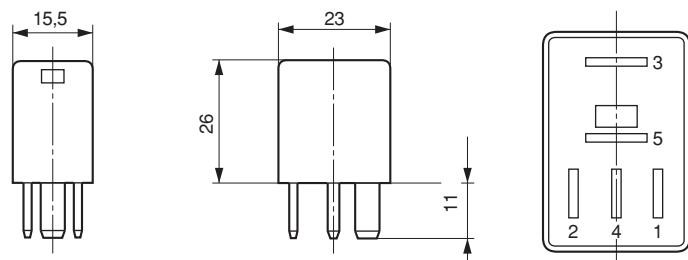
**0 332 017 300**

##### Technical data

Resistance load <sup>1)</sup> - Make contact	A/thousand	20/≥300
Motor load <sup>2)</sup> - NO contact	A/A/Thousand	30/15/≥200
Lamp load <sup>1)</sup> - NO contact	A/Thousand	20/≥150
Exciter circuit total resistance	Ω	78±6

<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

##### Dimensional drawing

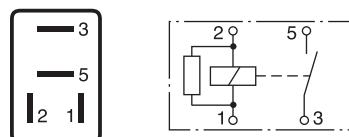


Blade terminal size to DIN 46 244, similar to ISO 8092: Terminal 1 and 2 (4): 4.8 x 0.8 mm; Terminal 3 and 5: 6.3 x 0.8 mm

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	5	87	

# Relays

## Micro relays

### Make relay 12 V

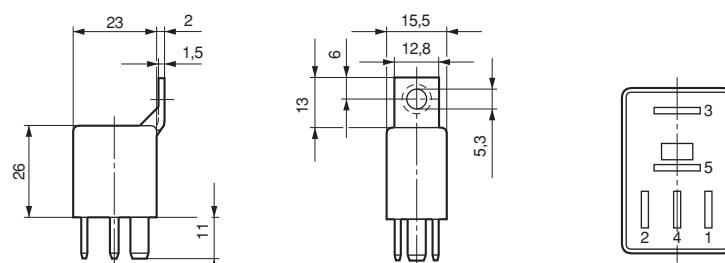
**0 332 017 302**

#### Technical data

Resistance load <sup>1)</sup> - Make contact	A/thousand	20/≥300
Motor load <sup>2)</sup> - NO contact	A/A/Thousand	30/15/≥200
Lamp load <sup>1)</sup> - NO contact	A/Thousand	20/≥150
Exciter circuit total resistance	Ω	78±6

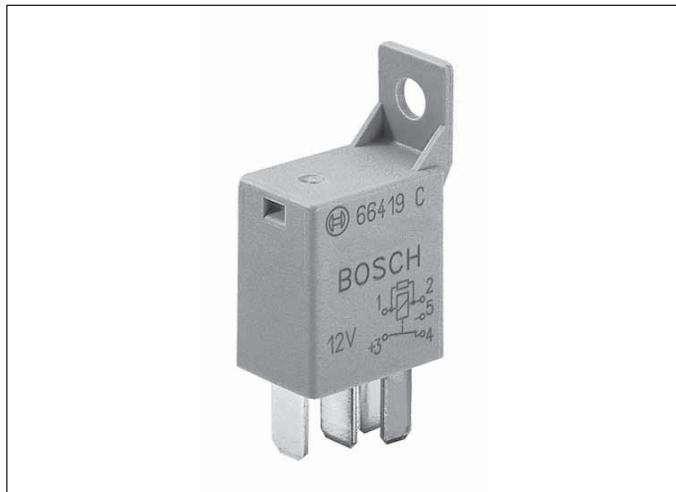
<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

#### Dimensional drawing

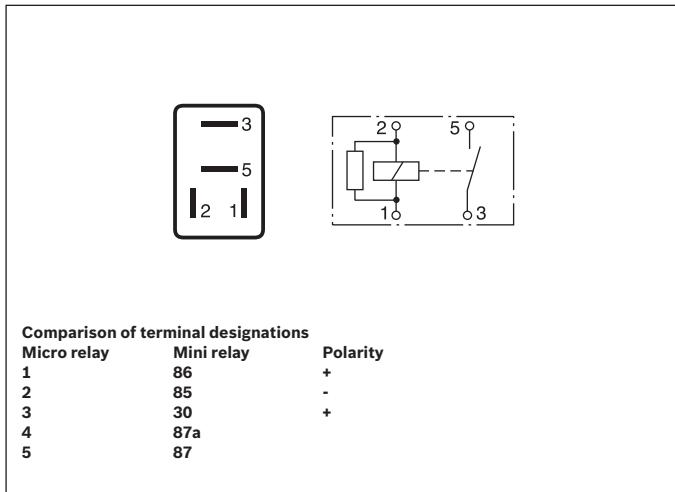


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#### Figure



#### Connection and circuit diagram



## Relays

### Micro relays

#### Changeover relay 12V

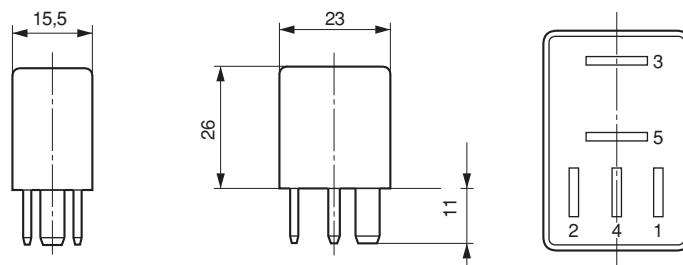
**0 332 201 107**

##### Technical data

Resistive load <sup>1)</sup> - NO contact	A/Thousand	30/≥100	22/≥200
Resistive load <sup>1)</sup> - NC contact	A/Thousand	10/≥100	5/≥200
Motor load <sup>2)</sup> - NO contact	A/A/Thousand	65/17/≥200	30/7/≥200
Lamp load <sup>1)</sup> - NO contact	A/Thousand	17/≥150	10/≥200
Lamp load <sup>1)</sup> - NC contact	A/Thousand	10/≥150	3,5/≥200
Exciter circuit total resistance	Ω		75±6

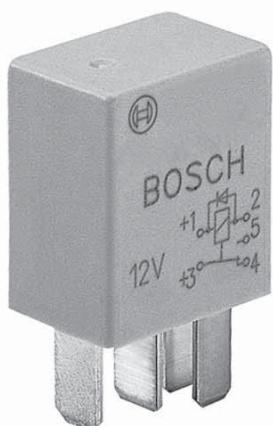
<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

##### Dimensional drawing

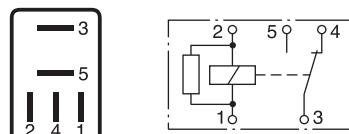


Blade terminal size to DIN 46 244, similar to ISO 8092: Terminal 1 and 2 (4): 4.8 x 0.8 mm; Terminal 3 and 5: 6.3 x 0.8 mm

##### Figure



##### Connection and circuit diagram



##### Comparison of terminal designations

Micro relay	Mini relay	Polarity
1	86	+
2	85	-
3	30	+
4	87a	
5	87	

# Relays

## Micro relays

### Changeover relay 12V

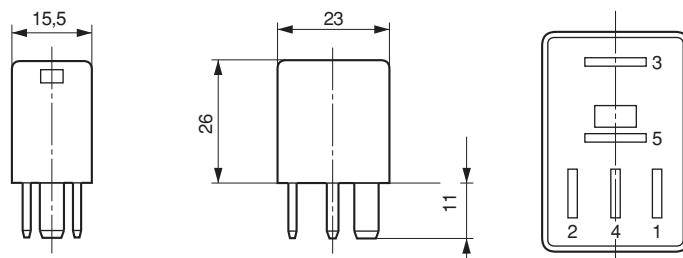
**0 332 207 304**

#### Technical data

Resistive load <sup>1)</sup> - NO contact	A/Thousand	20/≥100	16/≥200	10/≥500
Resistive load <sup>1)</sup> - NC contact	A/Thousand	10/≥125	5/≥250	
Motor load <sup>2)</sup> - NO contact	A/A/Thousand	35/20/≥100		
Exciter circuit total resistance	Ω			88±6

<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

#### Dimensional drawing

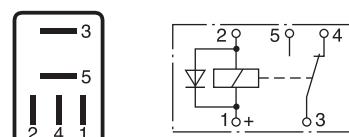


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4	87a	+
5	87	

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## Micro relays

### Changeover relay 12V

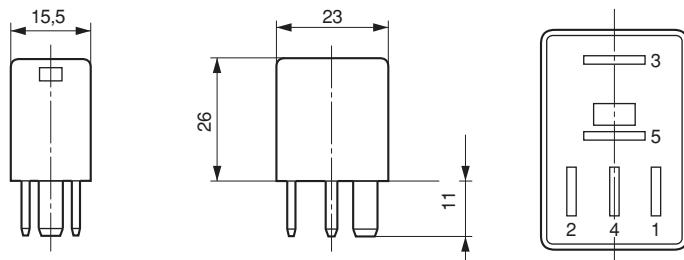
**0 332 207 307**

#### Technical data

Resistive load <sup>1)</sup> - NO contact	A/Thousand	20/≥300
Resistive load <sup>1)</sup> - NC contact	A/Thousand	10/≥150
Motor load <sup>2)</sup> - NO contact	A/A/Thousand	30/15/≥200
Lamp load <sup>1)</sup> - NO contact	A/Thousand	20/≥150
Lamp load <sup>1)</sup> - NC contact	A/Thousand	10/≥75
Exciter circuit total resistance	Ω	78±6

<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

#### Dimensional drawing

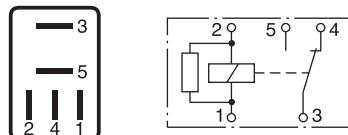


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### Changeover relay 12 V

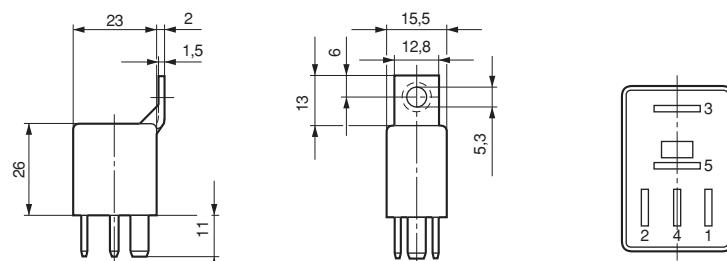
**0 332 207 310**

#### Technical data

Resistive load <sup>1)</sup> - NO contact	A/Thousand	20/≥300
Resistive load <sup>1)</sup> - NC contact	A/Thousand	10/≥150
Motor load <sup>2)</sup> - NO contact	A/A/Thousand	30/15/≥200
Lamp load <sup>1)</sup> - NO contact	A/Thousand	20/≥150
Lamp load <sup>1)</sup> - NC contact	A/Thousand	10/≥75
Exciter circuit total resistance	Ω	78±6

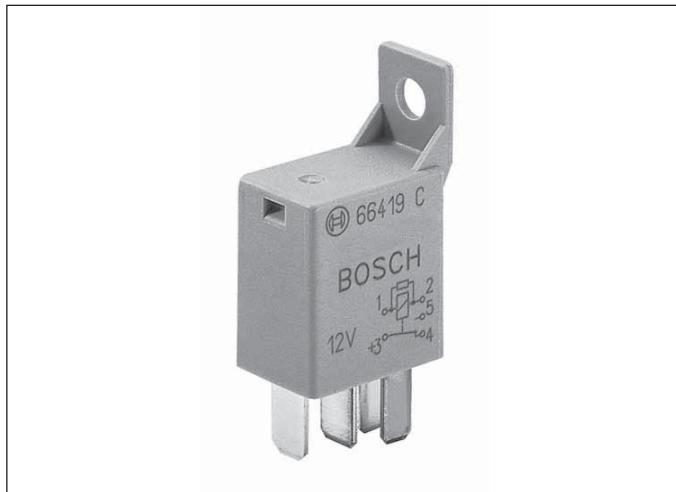
<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

#### Dimensional drawing

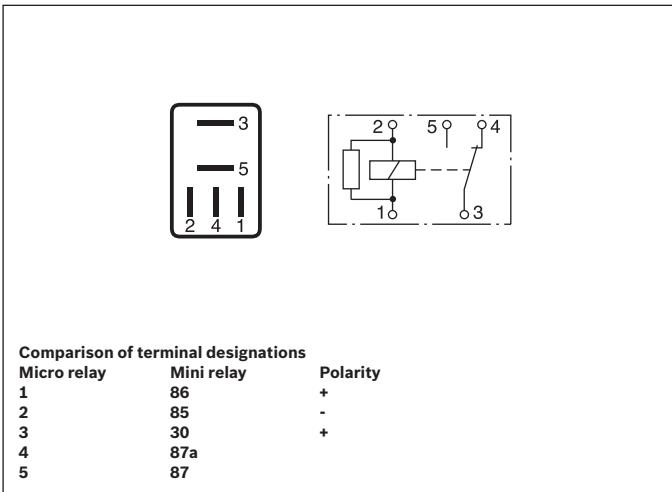


Blade terminal size to DIN 46 244, similar to ISO 8092: Terminal 1 and 2 (4): 4.8 x 0.8 mm; Terminal 3 and 5: 6.3 x 0.8 mm

#### Figure



#### Connection and circuit diagram



## Relays

### Micro relays

#### Changeover relay 24V

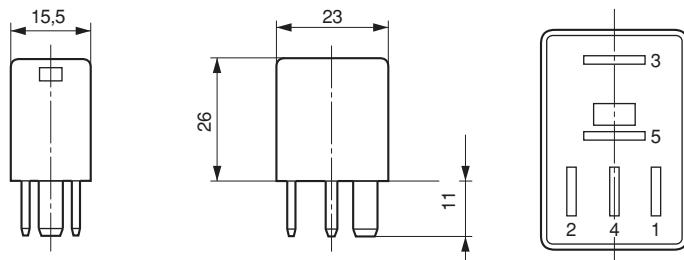
**0 332 207 402**

##### Technical data

Resistive load <sup>1)</sup> - NO contact	A/Thousand	10/≥250
Resistive load <sup>1)</sup> - NC contact	A/Thousand	5/≥250
Exciter circuit total resistance	Ω	410±20

<sup>1)</sup> Switching current/no. of operations   <sup>2)</sup> Making/continuous current/no. of operations

##### Dimensional drawing

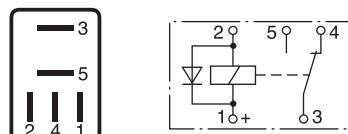


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##### Figure



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##### Comparison of terminal designations

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1	86	+
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4	87a	
5	87	

# Relays

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### Changeover relay 24 V

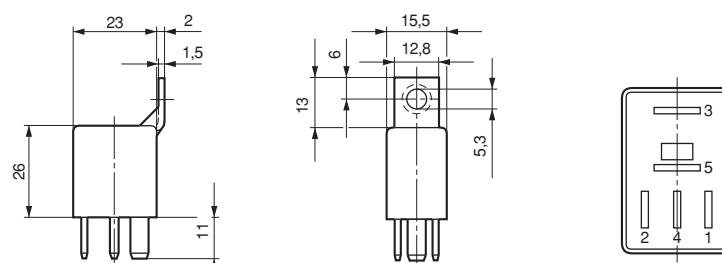
**0 332 207 404**

#### Technical data

Resistive load <sup>1)</sup> - NO contact	A/Thousand	10/≥250
Resistive load <sup>1)</sup> - NC contact	A/Thousand	5/≥250
Exciter circuit total resistance	Ω	335±20

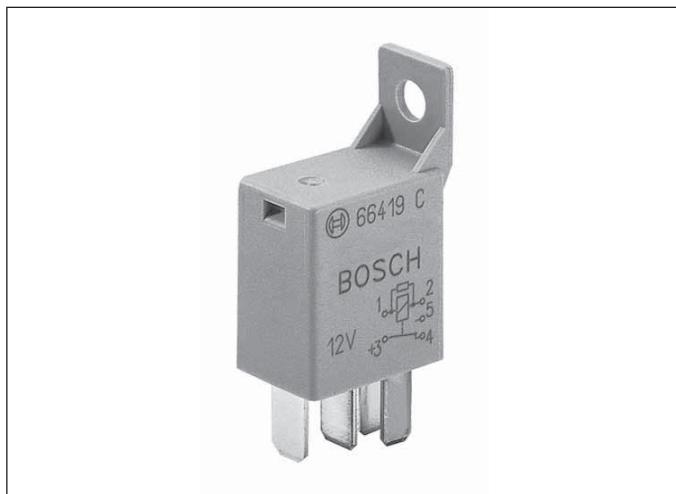
<sup>1)</sup> Switching current/no. of operations    <sup>2)</sup> Making/continuous current/no. of operations

#### Dimensional drawing



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