

Data sheet | Item number: 288-418

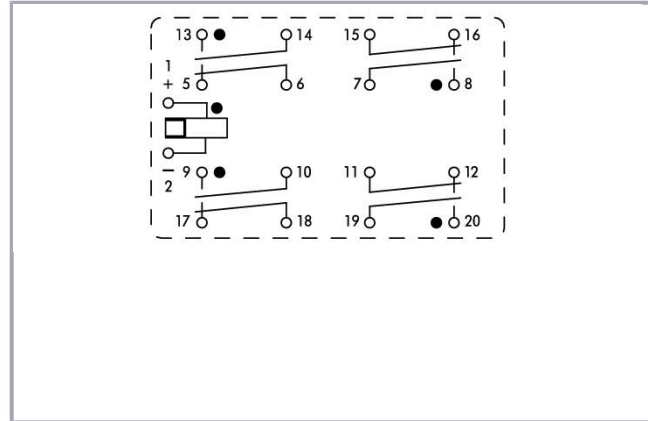
Safety relay module; Nominal input voltage: 230 V AC/DC; 2,50 mm<sup>2</sup>; gray

[www.wago.com/288-418](http://www.wago.com/288-418)



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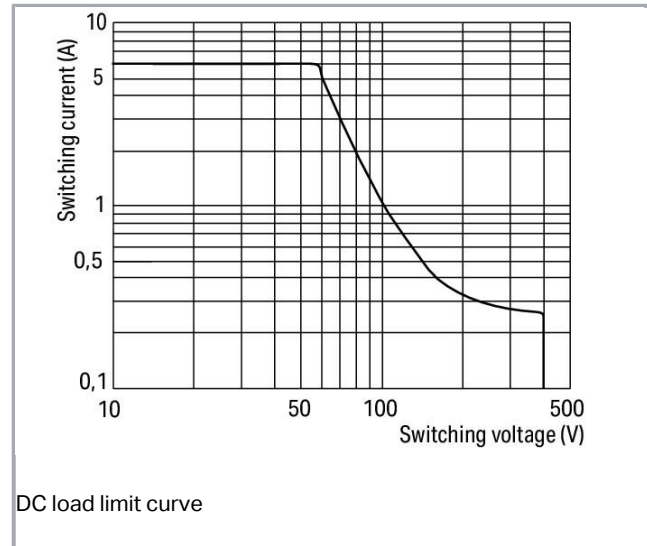
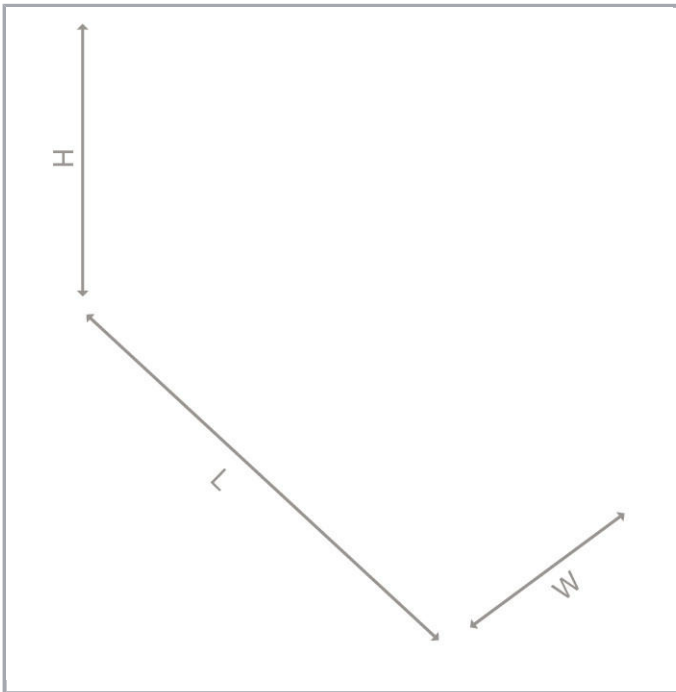
Color: ■



Subject to changes. Please also observe the further product documentation!

WAGO Kontakttechnik GmbH & Co. KG  
Hansastr. 27  
32423 Minden  
Phone: +49571 887-0 | Fax: +49571 887-169  
Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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## Item description

### Note:

If required, a ventilation hole can be made in the cover, reducing the protection type from IP67 to IP30.

If an outer contact (20) should weld, then the forced operated inner contact (12) driven by the actuator remains open. The rotating armature remains free to move. The unaffected contact pairs can operate normally, (i. e. their function to make or break remains unaffected).

If an inner contact should weld (12) then the movement of the rotating armature is blocked via the operator. Open contacts of all four contact pairs remain open. This arrangement corresponds to conventional, force-guided operation.

## Data

### Technical Data

### Control circuit

Nominal input voltage $U_N$	AC/DC 230 V
Input voltage range	-15 ... +20 %
Nominal input current at $U_N$	14 mA

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**Load circuit:**

Number of break contacts/switch off contacts	4
Number of make contacts/switch on contacts	4
Contact material (relay)	AgSnO <sub>2</sub>
Limiting continuous current	6 A
Max. switching voltage	AC 250 V
Max. switching power (resistive)	AC 1500 VA
Recommended minimum load	10 V / 10 mA
Pull-in time (typ.)	18 ms
Drop-out time (typ.)	21 ms
Bounce time (typ)	4 ms
Electrical life (N.O.; resistive load; 23 °C)	100 x 10 <sup>3</sup> switching operations
Mechanical life	10 x 10 <sup>6</sup> switching operations
Forced operation	Type B

**Safety and protection:**

Rated voltage	250 V
Note on insulation parameters	acc. to EN 61010-1 Chapter K. 3c
Overvoltage category	II
Pollution degree	2
Dielectric strength, control/load circuit (AC, 1 min)	2 kVrms
Dielectric strength open contact (AC, 1 min)	1,3 kVrms
Dielectric strength, load/load circuit (AC, 1 min)	1,5 kVrms
Insulation type (control/load circuit)	Basic insulation
Insulation type (open contact)	Functional insulation
Insulation type (load/load circuit)	Basic insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)

**Connection data**

Connection technology	CAGE CLAMP®
WAGO terminal	WAGO 256 Series
Solid conductor	0,08 ... 2,5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0,08 ... 2,5 mm <sup>2</sup> / 28 ... 12 AWG
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch

Subject to changes. Please also observe the further product documentation!



## Geometrical Data

Width	63,5 mm / 2.5 inch
Height from upper-edge of DIN-35 rail	40 mm / 1.575 inch
Depth	85 mm / 3.346 inch

## Mechanical data

Type of mounting	DIN-35 rail
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## Material Data

Color	gray
Fire load	1.167 MJ
Weight	113.3 g

## Environmental Requirements

Surrounding air (operating) temperature at $U_N$	-40 ... 70 °C
Surrounding air (storage) temperature	-40 ... 80 °C
Processing temperature	-25 ... +50 °C
Max. temperature rise of connection cable	20 K
Relative humidity	5 ... 85 %
Max. operating altitude	2000 m

## Standards and specifications

Standards/specifications	EN 60664-1; EN 50205; EN 61810-1; ESTI (SEV): 09.1133; UL 508: E120782; TÜV: 968/EZ 116.02/09
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## Commercial data

Product Group	6 (Interface Electronics)
Packaging type	BOX
Country of origin	DE
GTIN	4017332160209
Customs Tariff No.	85364900990

## Counterpart



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 32423 Minden  
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 Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)


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## Compatible products

### Marking accessories

	<b>Item no.: 709-177</b> Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; translucent	<a href="http://www.wago.com/709-177">www.wago.com/709-177</a>
	<b>Item no.: 709-178</b> Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/709-178">www.wago.com/709-178</a>
	<b>Item no.: 709-196</b> Marking strips; for laser printer; translucent	<a href="http://www.wago.com/709-196">www.wago.com/709-196</a>
	<b>Item no.: 709-198</b> Marking strips; white	<a href="http://www.wago.com/709-198">www.wago.com/709-198</a>

### tools

	<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
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## Downloads

### Documentation

#### Instruction Leaflet

		pdf 1.3 MB	Download
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### Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 288-418	URL	Download
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### CAE data

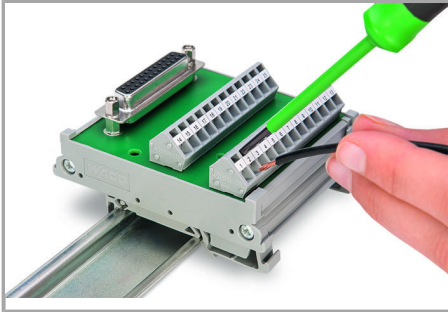
EPLAN Data Portal 288-418	URL	Download
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WSCAD Universe 288-418	URL	Download
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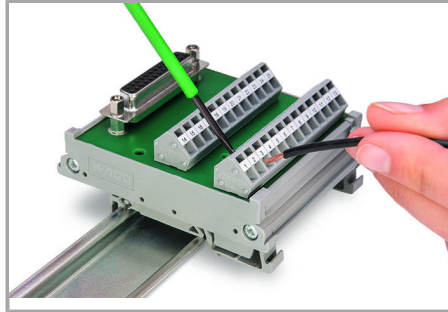
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## Installation Notes

### Inserting a conductor

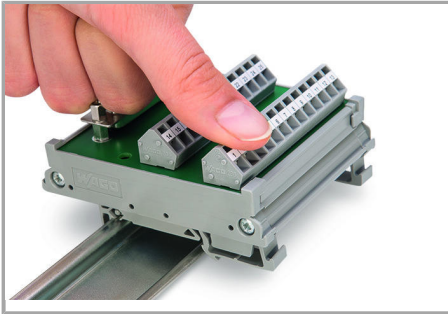


Connection of conductor – Operating tool actuation parallel to conductor entry.

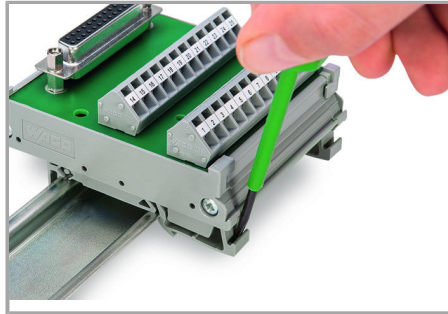


Connection of conductor – Operating tool actuation perpendicular to conductor entry.

### Assembly



Assembly of a module on the carrier rail



Removing a module from the DIN-rail.

Subject to changes. Please also observe the further product documentation!