

# Data Sheet | Item Number: 2010-402

Jumper; 2-way; insulated; light gray

<https://www.wago.com/2010-402>



Color: ■ light gray

## Electrical data

### Ratings per IEC/EN

Nominal voltage (III/3)	800 V
Rated current	57 A

### Ex information

Rated current (Ex e II)	50 A
-------------------------	------

## Physical data

Width	17.5 mm / 0.689 inches
Height	4.1 mm / 0.161 inches
Depth	23 mm / 0.906 inches
Jumper assignment	1-2

## Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	light gray
Fire load	0.015 MJ
Weight	3.9 g

## Environmental requirements

### Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard

### Environmental Testing

Frequency	$f_1 = 5 \text{ Hz to } f_2 = 150 \text{ Hz}$
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed

### Environmental Testing

Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

### Commercial data

Product Group	22 (TOPJOB S)
PU (SPU)	25 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4055143701938
Customs tariff number	85366990990

### Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-40
eCl@ss 9.0	27-14-11-40
ETIM 9.0	EC000489
ETIM 10.0	EC000489
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

## Approvals / Certificates

### Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Railway Ready

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product  
Compliance 2010-402



## Documentation

### Bid Text

2010-402	28.04.2017	doc 23.50 KB	
2010-402	19.02.2019	xml 2.51 KB	

## CAD/CAE-Data

### CAD data

2D/3D Models  
2010-402



### CAE data

EPLAN Data Portal  
2010-402



WSCAD Universe  
2010-402

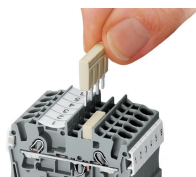


ZUKEN Portal  
2010-402

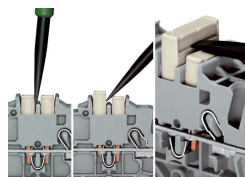


## Installation Notes

### Commoning



Insert push-in type jumper bar and push down until it hits backstop.



**Removing a push-in type jumper bar:**  
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.  
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

Commoning



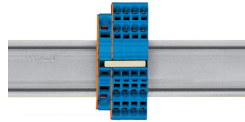
Custom jumpers are created by breaking and removing jumper contacts (2000, 2001, 2002, 2004 Series).

Marking with a felt-tip pen.

Commoning

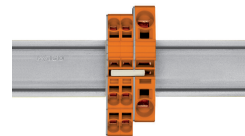


Stepping down via push-in type jumper bar.



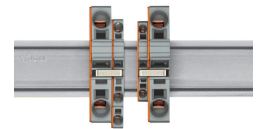
**Stepping down via push-in type jumper bar:**

Commoning via closed terminal side with end plate allows jumpering over two cross-section sizes, e.g., from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) or from 6 mm<sup>2</sup> (10 AWG) to 2.5 mm<sup>2</sup> (14 AWG) (see illustration above).



**Stepping down via push-in type jumper bar:**

Commoning via open terminal side with end plate allows jumpering over two cross-section sizes for 16 mm<sup>2</sup> (6 AWG) and 10 mm<sup>2</sup> (8 AWG) and one cross-section size for 6/4/2.5 mm<sup>2</sup> (10/12/14 AWG). An example: from 16 mm<sup>2</sup> (6 AWG) to 6 mm<sup>2</sup> (10 AWG) (see illustration above) or from 10 mm<sup>2</sup> (8 AWG) to 4 mm<sup>2</sup> (12 AWG).



**Note:**

The total current of the outgoing circuits must not exceed the nominal current of the step-down jumper/push-in type jumper bar.