

# Data Sheet | Item Number: 2004-402

Jumper; 2-way; insulated; light gray

<https://www.wago.com/2004-402>



Color: ■ light gray

Similar to illustration

## Electrical data

### Ratings per IEC/EN

|                         |       |
|-------------------------|-------|
| Nominal voltage (III/3) | 800 V |
| Rated current           | 32 A  |

### Ex information

|                         |      |
|-------------------------|------|
| Rated current (Ex e II) | 30 A |
|-------------------------|------|

## Physical data

|                   |                        |
|-------------------|------------------------|
| Width             | 10.3 mm / 0.406 inches |
| Height            | 4.1 mm / 0.161 inches  |
| Depth             | 19 mm / 0.748 inches   |
| Jumper assignment | 1-2                    |

## Material data

Note (material data)

[Information on material specifications can be found here](#)

|                                    |                  |
|------------------------------------|------------------|
| Color                              | light gray       |
| Material group                     | I                |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94        | V0               |
| Fire load                          | 0.007 MJ         |
| Weight                             | 1.4 g            |

## Environmental requirements

|                                  |                 |
|----------------------------------|-----------------|
| Processing temperature           | -35 ... +85 °C  |
| Continuous operating temperature | -60 ... +105 °C |

### Environmental Testing (Environmental Conditions)

|  |  |
|--|--|
| Test specification<br>Railway applications –<br>Rolling stock –<br>Electronic equipment            | DIN EN 50155 (VDE 0115-200):2022-06                |
| Test procedure<br>Railway applications –<br>Rolling stock equipment –<br>Shock and vibration tests | DIN EN 61373 (VDE 0115-0106):2011-04               |
| Spectrum/Installation location   | Service life test, Category 1, Class A/B           |
| Function test with noise-like vibration  | Test passed according to Section 8 of the standard |

### Environmental Testing (Environmental Conditions)

|  |   |
|--|---|
| Frequency  | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz<br>f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz  |
| Acceleration   | 0.101g (highest test level used for all axes)<br>0.572g (highest test level used for all axes)<br>5g (highest test level used for all axes) |
| Test duration per axis   | 10 min.<br>5 h  |
| Test directions  | X, Y and Z axes<br>X, Y and Z axes<br>X, Y and Z axes   |
| Monitoring for contact faults/interruptions                                  | Passed  |
| Voltage drop measurement before and after each axis                          | Passed  |
| Simulated service life test through increased levels of noise-like vibration | Test passed according to Section 9 of the standard  |
| Extended test scope: Monitoring for contact faults/interruptions             | Passed<br>Passed  |
| Extended test scope: Voltage drop measurement before and after each axis     | Passed<br>Passed  |
| Shock test   | Test passed according to Section 10 of the standard   |
| Shock form   | Half sine   |
| Shock duration   | 30 ms   |
| Number of shocks per axis  | 3 pos. und 3 neg.   |
| 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                  | 4055143700153 |
| Customs tariff number | 85366990990   |

### Product classification

|        |          |
|--------|----------|
| UNSPSC | 39121421 |
|--------|----------|

### Environmental Product Compliance

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

### Approvals / Certificates

#### Declarations of conformity and manufacturer's declarations



| Approval                      | Standard | Certificate Name |
|-------------------------------|----------|------------------|
| Railway<br>WAGO GmbH & Co. KG | -        | Railway Ready    |

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 2004-402



## Documentation

### Bid Text

|          |            |                 |  |
|----------|------------|-----------------|--|
| 2004-402 | 19.02.2019 | xml<br>2.51 KB  |  |
| 2004-402 | 28.04.2017 | doc<br>23.50 KB |  |

## CAD/CAE-Data

### CAD data

2D/3D Models  
2004-402



### CAE data

EPLAN Data Portal  
2004-402



WSCAD Universe  
2004-402

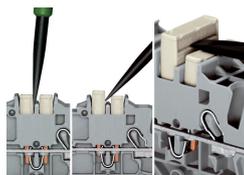


ZUKEN Portal  
2004-402



## Installation Notes

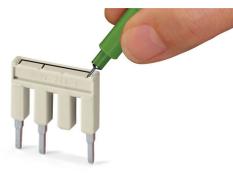
### Commoning



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.

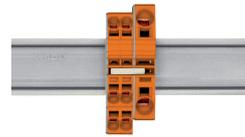
### Commoning



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.