

**Data Sheet | Item Number: 2002-480**  
 Staggered jumper; 10-way; insulated; light gray

<https://www.wago.com/2002-480>



Color: ■ light gray

**Electrical data**

Ratings per IEC/EN	
Nominal voltage (III/3)	400 V
Rated impulse withstand voltage (III / 3)	6 kV
Rated current	25 A

**Physical data**

Width	50.8 mm / 2 inches
Jumper assignment	1-2-3-4-5-6-7-8-9-10

**Material data**

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	light gray
Fire load	0.016 MJ
Weight	5 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
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$

Environmental Testing	
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
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 $f_2 = 150 \text{ Hz}$

### Environmental Testing

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	4055143692342
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
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### 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 2002-480



Documentation

Bid Text

2002-480	19.02.2019	xml 2.62 KB	
2002-480	27.04.2017	doc 24.00 KB	

CAD/CAE-Data

CAD data

2D/3D Models  
2002-480



CAE data

EPLAN Data Portal  
2002-480



WSCAD Universe  
2002-480

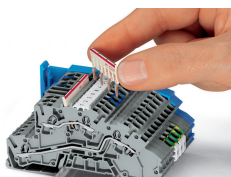


ZUKEN Portal  
2002-480



Installation Notes

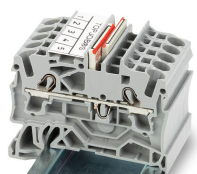
Commoning



Orient the staggered jumpers' red stripes on the inside. Insert the staggered jumper and push down until it hits the backstop.

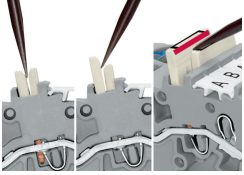
Commoning two potentials in one single jumper slot via extremely slim staggered jumpers.

Commoning



Orient the staggered jumpers' red stripes on the inside. Insert the staggered jumper and push down until it hits the backstop.

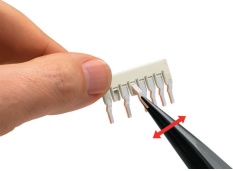
## Commoning



### Removing a staggered jumper:

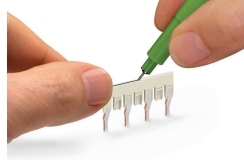
Insert the operating tool between the staggered jumpers, then lift up the jumper.

## Commoning



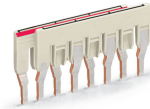
### Staggered jumper (seven contacts)

Breaking off contact lugs. Individual jumper contacts can be broken off by bending them. The remaining piece of insulation will meet requirements for clearances and creepage distances.



### Staggered jumpers

Marking with a felt-tip pen.



### Staggering jumpers in a single jumper slot:

Custom staggered jumpers can be created, e.g., for bridging over a terminal block with a different potential. Make sure that only one contact lug is in contact with the terminal block.

The contact lugs of the customized staggered jumpers contact the terminal blocks via the gaps created in the second jumper. Insert and press the ready-made jumper assembly into the jumper slot until it hits the backstop.