

Data Sheet | Item Number: 2002-472
 Staggered jumper; 2-way; insulated; light gray

<https://www.wago.com/2002-472>



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	9 mm / 0.354 inches
Jumper assignment	1-2

Material data

Note (material data)	Information on material specifications can be found here
Color	light gray
Fire load	0.032 MJ
Weight	0.9 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
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	4055143692250
Customs tariff number	85366990990

Product Classification

UNSPSC	39121402
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 2002-472



Documentation

Bid Text

2002-472	19.02.2019	xml 2.62 KB	
2002-472	27.04.2017	doc 24.00 KB	

CAD/CAE-Data

CAD data

2D/3D Models
2002-472



CAE data

EPLAN Data Portal
2002-472



WSCAD Universe
2002-472

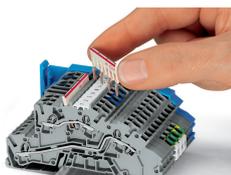


ZUKEN Portal
2002-472



Installation Notes

Commoning



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

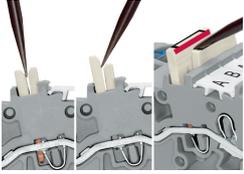
Commoning two potentials in one single jumper slot via extremely slim staggered jumpers.

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



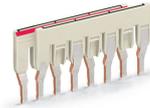
Staggered jumper (seven contacts)

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.