

Data Sheet | Item Number: 2016-499

Step-down jumper; from 2016/2010 to 2010/2006/2004/2002 series; from 2216/2210 to 2210/2206/2204/2202 series; insulated; light gray

<https://www.wago.com/2016-499>



Color: ■ light gray

Electrical data

Ratings per IEC/EN

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

Physical data

Width	15.5 mm / 0.61 inches
Height	3.9 mm / 0.154 inches
Depth	24.2 mm / 0.953 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	0.016 MJ
Weight	3.3 g

Environmental requirements

Environmental Testing (Environmental Conditions)

Test specification Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure Railway applications – Rolling stock equipment – 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	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$ $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration	0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)
Test duration per axis	10 min. 5 h

Environmental Testing (Environmental Conditions)

Test directions	X, Y and Z axes X, Y and Z axes 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 Passed
Extended test scope: Voltage drop measurement before and after each axis	Passed 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)
eCl@ss 10.0	27-14-11-40
eCl@ss 9.0	27-14-11-40
ETIM 9.0	EC000489
ETIM 8.0	EC000489
PU (SPU)	25 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4055143702461
Customs tariff number	85366990990

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 2016-499



Documentation

Additional Information

Technical Section

pdf
2246.92 KB



Bid Text

2016-499

19.02.2019

xml
2.55 KB



2016-499

28.04.2017

doc
23.50 KB



CAD/CAE-Data

CAD data

2D/3D Models
2016-499



CAE data

EPLAN Data Portal
2016-499



WSCAD Universe
2016-499

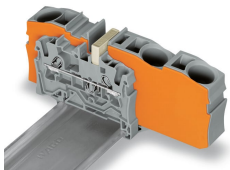


ZUKEN Portal
2016-499



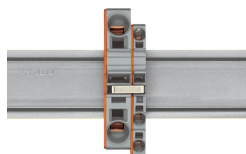
Installation Notes

Commoning



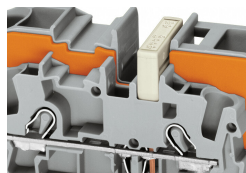
Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point. Commoning may be made in either direction using the special thin end plate to cover the open side. Additional through terminal blocks having a smaller cross-section may be commoned using push-in type jumper bars.

Commoning



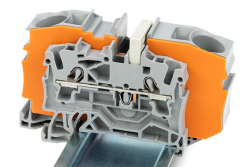
Using **step-down jumpers**, an end plate must be inserted between the terminal blocks to be commoned.

Commoning



Commoning with step-down jumpers.

Commoning



Step-down jumper (2016-499) commons 16/10 mm² (16/8 AWG) terminal blocks (2016/2010 Series) with 10/6/4/2.5 mm² (8/10/12/14 AWG) terminal blocks (2010/2006/2004/2002 Series).