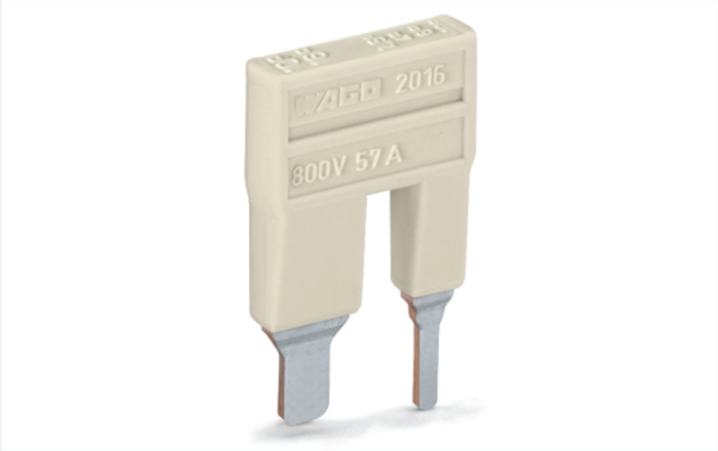
Data Sheet | Item Number: 2016-499

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	
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

Material data	
Color	light gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.014 MJ
Weight	3.3 g

Commercial data	
Product Group	22 (TOPJOB S)
PU (SPU)	25 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4055143702461
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

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 Hz to f_2 = 150 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
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f_1 = 5 Hz to f_2 = 150 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

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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

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

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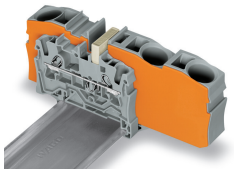
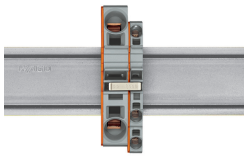
Commoning



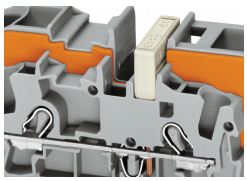
Step-down jumpers common terminal blocks of different sizes, without losing a conductor clamping point. This can be beneficial on long conductor runs where voltage drop can be a problem. A large conductor can be easily connected to smaller conductors at the distribution point.
Commoning may be made in 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



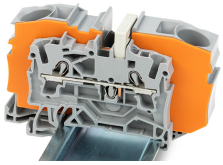
Using step-down jumpers, an end plate must be inserted between the terminal blocks to be commoned.

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).