Data Sheet | Item Number: 2002-410

Jumper; 10-way; insulated; light gray

https://www.wago.com/2002-410



Color: light gray

Technical data	
Number of spacings	10 -times

Electrical data	
Rated current	25 A

Physical data	
Width	50.4 mm / 1.984 inches
Height	4.1 mm / 0.161 inches
Depth	19 mm / 0.748 inches

Material data	
Color	light gray
Fire load	0.032 MJ
Weight	5 g

Commercial data	
Product Group	22 (TOPJOB S)
PU (SPU)	25 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4055143690386
Customs tariff number	85366990990

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Product Classification

UNSPSC	39121421
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 2002-410

Documentation

Bid Text

2002-410	19.02.2019	xml 2.52 KB
2002-410	27.04.2017	doc 23.50 KB

CAD/CAE-Data

CAD data

2D/3D Models 2002-410

CAE data

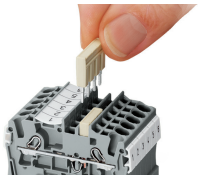
EPLAN Data Portal 2002-410

WSCAD Universe 2002-410

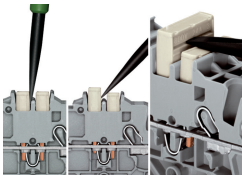
ZUKEN Portal 2002-410

Installation Notes

Commoning



Insert push-in type jumper bar and push down until it hits backstop.



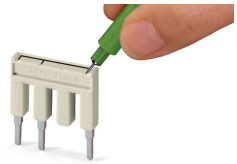
Removing a push-in type jumper bar:
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

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Commoning

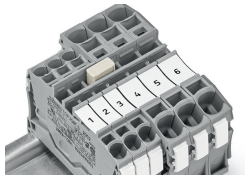


Custom jumpers are created by breaking and removing jumper contacts (2000, 2001, 2002, 2004 Series).

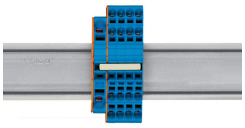


Marking with a felt-tip pen.

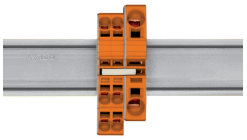
Commoning



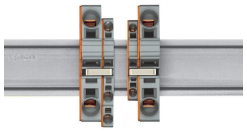
Stepping down via push-in type jumper bar.



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 mm² (6 AWG) to 6 mm² (10 AWG) or from 6 mm² (10 AWG) to 2.5 mm² (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 mm² (6 AWG) and 10 mm² (8 AWG) and one cross-section size for 6/4/2.5 mm² (10/12/14 AWG). An example: from 16 mm² (6 AWG) to 6 mm² (10 AWG) (see illustration above) or from 10 mm² (8 AWG) to 4 mm² (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.