



Color: ■ light gray

Electrical data			
Ratings per IEC/EN		Ex information	
Nominal voltage (III/3)	800 V	Rated current (Ex e II)	20 A
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		
Jumper assignment	1-2-3-4-5-6-7-8-9-10		
Material data			
Note (material data)		Information on material specifications can be found here	
Color	light gray		
Fire load	0.035 MJ		
Weight	5 g		
Environmental requirements			
Environmental Testing (Environmental Conditions)		Environmental Testing (Environmental Conditions)	
Test specification Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06	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 procedure Railway applications – Rolling stock equipment – Shock and vibration tests	DIN EN 61373 (VDE 0115-0106):2011-04	Test duration per axis	10 min. 5 h
Spectrum/Installation location	Service life test, Category 1, Class A/B	Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes
Function test with noise-like vibration	Test passed according to Section 8 of the standard	Monitoring for contact faults/interruptions	Passed
Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz f ₁ = 5 Hz to f ₂ = 150 Hz	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



Environmental Testing (Environmental Conditions)	
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)
PU (SPU)	25 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4055143690386
Customs tariff number	85366990990

Product classification	
UNSPSC	39121421

Environmental Product Compliance	
RoHS Compliance Status	Compliant,No Exemption

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	↓

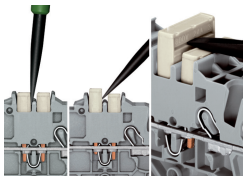
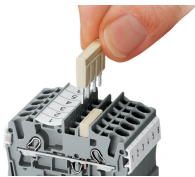
CAD/CAE-Data

CAD data	
2D/3D Models 2002-410	↓

CAE data	
EPLAN Data Portal 2002-410	↓
WSCAD Universe 2002-410	↓
ZUKEN Portal 2002-410	↓

Installation Notes

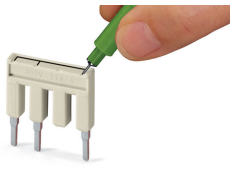
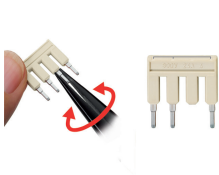
Commoning



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.

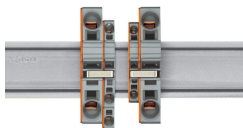
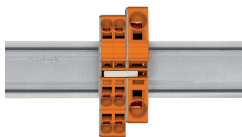
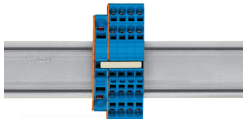
Commoning



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.