## - Simply Push-In -Conductor Termination/Removal Handling Ex e/Ex i Separators





## **Tool-Free Terminations**

Stripped solid, ferruled or ultrasonically "bonded" conductors are easily terminated by simply pushing them into a

This advantage significantly reduces costs for conductors rated 0.5 mm² to 16 mm² (AWG 20-4) in applications such as electrical installations or factory wiring.



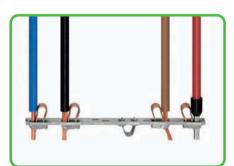
## Stranded conductors with ferrules

from at least two sizes below the rated cross section up to the rated cross section can also be simply pushed in without tools.



## Conductor termination – Push-in connection

Solid conductors with cross sections from either one size above, or up to two sizes below, the rated cross section can be inserted directly - without tools.



All conductor types at a glance



### Conductor termination with operating tool

Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in is performed similarly to the original CAGE CLAMP® - just use an operating tool.

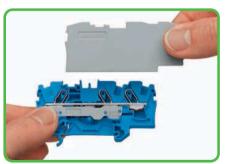
## The smart feature:

To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees resulting in easier wiring.



### Conductor removal

Like the original CAGE CLAMP® an operating tool is used for conductor removal with CAGE CLAMP®S.



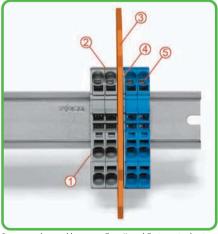
Separator for Ex e/Ex i applications

An end plate must be applied to the terminal block located directly behind an Ex e/Ex i separator plate.



Ex e II/Ex i terminal strip

The movable feet of terminal blocks and separator plates must face the same direction.



Separator located between Ex e II and Ex i terminal strip

① End plate
② Ex e II terminal blocks

- 3 Ex e/Ex i separator plate
  4 End plate
  5 Ex i terminal blocks

## - Simply Jumpered -Handling Push-In Type Jumper Bars **Angle-Type Rail-Mounted Terminal Blocks**



The push-in type jumper system is based on the common plug and socket principle. Each terminal block is spring-loaded with a double socket and a resilient CrNi steel spring. Therefore the jumpers, which consist of cathode copper, can be produced with particularly small dimensions. This does not impair their load carrying capacity in accordance with the terminal block rated current. Ground terminal blocks can also be commoned using the same jumper system. Custom jumpers are created by breaking and removing jumper contacts (4 mm²/AWG 12).



## The smart feature:

- Jumper slots can also be used for:

  push-in type jumper bars and step-down jumpers

  test plug adapters and testing taps

  preharnessed plugs for subassembly connections.



Push-in type jumper bars

800 V 600 V **N** 

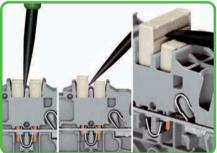
550 V 🖘



Push-in type jumper bar 1 2 – 4 Breaking off jumper contacts 500 V 300 V **9** 

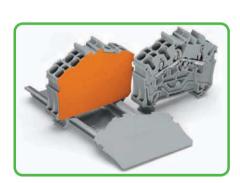


Push-in type jumper bar 1 2 – 4 Marking with a felt-tip pen.



Removal of push-in type jumper bar
Insert the operating tool between the jumper and the partition wall of the dual jumper slots.
Place the operating tool in the center of jumpers up to 5

contacts (see above), or alternately on both sides for jumpers with more than 5 contacts.





With continuous terminal strips an end plate must be used when changing from 3- to 4-conductor terminal blocks.

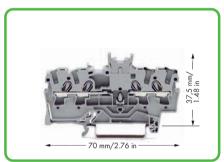


## **Accessories for Rail-Mounted Terminal Blocks**

Double-Potential Terminal Blocks 2.5 (4) mm<sup>2</sup>

- Ocnductor sizes: 0.25 mm<sup>2</sup> 4 mm<sup>2</sup> "s + f-st"; Push-in conductor sizes: 0.75 mm<sup>2</sup> – 4 mm<sup>2</sup> "s" and 0.75 mm<sup>2</sup> – 2.5 mm<sup>2</sup> "insulated ferrule, 12 mm"
- 800 V = rated voltage 8 kV = rated surge voltage 3 = pollution degree (also see Section 14)
- 3 Strip length, see packaging or instructions.
- 4 Suitable for Ex i applications
- Suitable for Ex e II applications 550 V, 22 A Jumper 20 A (also see Section 14)
- See application notes for:

  Ex e/Ex i separator plate, page 52
  Colored pushin type jumper bars, page 139
  Staggered jumper, page 141
  Delta jumper, page 140
  Star point jumper, page 140
  Step-down jumper, page 67
  Adjacent jumper for continuous commoning, page 139
  Pushin type wire jumper, page 140
  TOPJOB®S connector, page 134
  TOPJOB®S L-type test plug module, page 136
  Marker carrier, page 145



**Double-potential terminal block** with double marker slot centered on terminal block gray 2002-1441

gray 2002-1441 Packing unit: 100 pcs

2002 Series

# Notice: This double-potential terminal block cannot be commoned with push-in type jumper bars!

Double-potential terminal blocks are space savers. Two independent feedthrough circuits are placed in one insulated housing on one level in just 5.2 mm/0.205 in. This achieves a width of just 2.6 mm/0.103 in versus standard through terminal blocks.

Input and output contacts of one circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

For technical data and accessories, see www.wagocatalog.com

2002 Series Accessories								
Appropriate marking systems: WMB/Marking strips/WMB Inline								
(see Section 13)								
, , , , , , , , , , , , , , , , , , ,								
Staggered jui	•							
6	insulated,			6	insulated,			
11111111	I <sub>N</sub> 25 A,			1	I <sub>N</sub> 16 A, wire size 1.5	2		
Lite	light gray	2002 472	100 /4 05		L = 60 mm		100 (10 10)	
	2-way	2002-472 2002-473	100 (4x25 100 (4x25		L = 00 mm L = 110 mm		100 (10x10) 100 (10x10)	
	3-way	2002-473	100 (4x25		L = 250 mm		100 (10x10)	
	4-way	2002-474	50 (2×25		L - 230 mm	2009-410	100 (10x10)	
	5-way 6-way	2002-475	50 (2x25		OPJOB®S connec	to.		
	7-way	2002-476	50 (2x25	_				
	8-way	2002-477	50 (2x25			can be snapped together, for jumper contact slot		
	9-way	2002-479	50 (2x25		gray	2002-511	100 (4x25)	
	10-way	2002-477	50 (2x25				100 (4,23)	
	11-way <b>2002-481</b> 50 (2x25)				Spacer module, can be snapped together, e.g., for bridging commoned terminal			
	12-way	2002-482	50 (2x25	-	blocks	ing commone	a icililia	
	. 2 ,	2002 .02	00 (2/20		gray	2002-549	100 (4x25)	
Customized s	taggered jump	er,		End plate,	9 7			
insulated,					for modular T	OPJOB®S con	nectors,	
I I TE TO THE	I <sub>N</sub> 25 A,			Sho	1.5 mm thick			
	light gray				gray	2002-541	100 (4x25)	
	1-3 <b>2002-473/011-000</b>			Test plug adapter,				
			100 (4x25		for test plug 4	l mm Ø		
	1-3-5	2002-475/	011-000	4	gray	2009-174	100 (4x25)	
	1-3-5-7	2002-477/	011-000	-2				
	1-3-5-7-9	2002-479/	011-000	Testing tap,	,			
	1-3-5-7-9-11	2002-481/	011-000	170	for max. 2.5 mm <sup>2</sup>			
			50 (2x25	-	gray	2009-182	100 (4x25)	
				-				
Delta jumper,		TOPJOB®S test plug module,						
6	I <sub>N</sub> = I <sub>N</sub> terminal block, light gray			6	can be snapp	-		
111111	1-2 3-4 5-6	2002-406/		4	gray	2002-611	100 (4x25)	
Lucia			100 (4x25			I. d		
Star point jumper, insulated,				TOPJOB®S spacer, can be snapped together, e.g., for bridging commoned terminal				
6	$I_N = I_N$ terminal block, light gray 1-3-5 <b>2002-405/011-000</b>			06	e.g., for bridg	ling commone	a terminai	
MAN	1-3-3	2002-403/	100 (4x25	Dist.		2002-649	100 (4×25)	
Step-down iu	mper, insulated,		100 (4,723		gray			
6 I <sub>N</sub> 32 A				End plate, for modular TOPJOB®S test plugs,  1.5 mm thick				
1	light gray	2006-499	50 (2x25	0	gray	2002-641	100 (4x25)	
YY	9 9. 47	2000	00 (ZXZ0		9.47	20020	.00 ( 1.1.20)	
Adjacent jumper for continuous commoning,				Marker carrier,				
6 insulated, I <sub>N</sub> 25 A,				6 for jumper slots 2002 Series,				
	light gray			1	5 mm wide			
[3]	2-way	2002-400	100 (4x25	1	gray	2002-161	100 (4x25)	
WMB Inline, plain,				WMB Multi marking system,				
	stretchable 5 -	5.2 mm,			10 strips with 10 markers per card,			
0	1,500 WMB markers, 5 mm, on roll			IIIII	stretchable 5 - 5.2 mm			
	white	2009-115	1	Maria	plain	793-5501	5	

