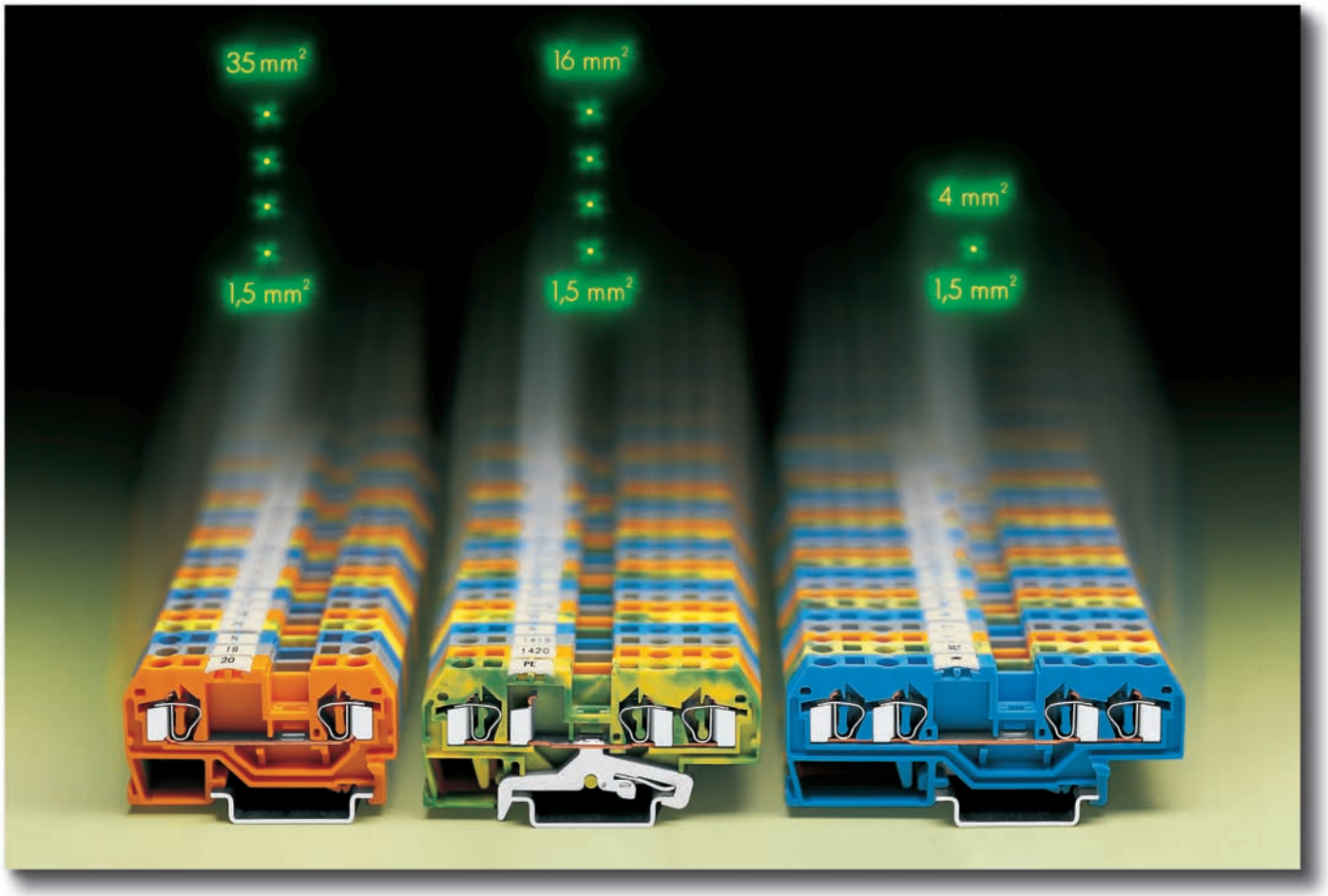
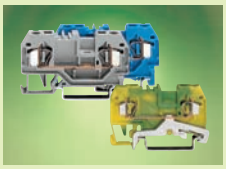


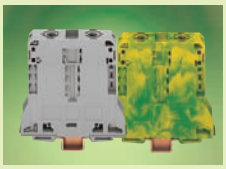
WAGO front-entry
rail-mounted terminal blocks
of series 279 to 285

Rail-Mounted Terminal Blocks (Front-Entry) and Multilevel Terminal Blocks



Through, ground (earth) conductor and shield (screen) terminal blocks
– angled type
– horizontal type
0.08 mm² to 16 mm² / AWG 28 – 6 — Series 279 – 284 and 880 — 2.8 – 2.20

Distribution terminal blocks
10 mm²/35 mm² / AWG 8/2 — Series 284 — 2.25



High current terminal blocks
6 mm² – 35 mm² / AWG 8 – 2 — Series 285 — 2.21
25 mm² – 95 mm² / AWG 4 – 0000 — Series 285 — 2.22 – 2.24



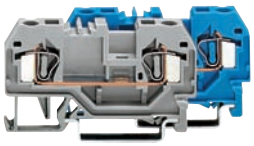
Multilevel terminal blocks
– Double deck 1.5 mm² / AWG 16 — Series 279
2.5 mm² / AWG 12 — Series 280
4 mm² / AWG 12 — Series 281 — 2.29 – 2.33
– Triple deck 2.5 mm² / AWG 12 — Series 280 — 2.34 – 2.35
– Quadruple deck 4 mm² / AWG 12 — Series 281 — 2.36



Accessories for rail-mounted terminal blocks
– Banana plugs — 2.42
– Busbar terminal blocks — 11.20 – 11.21
– Comb type jumper bars — 2.44
– Insulations stops — 2.43
– Staggered jumpers — 2.45
– Step-down jumpers for through terminal blocks — 2.26 – 2.27
– Test plug modules — 2.38 – 2.41
– Wire jumpers — 2.45

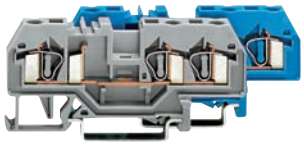
Rail-Mounted Terminal Blocks with CAGE CLAMP® Connection – Product Summary –

Series 279 – 285 Through terminal blocks



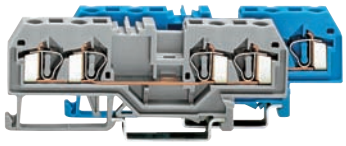
2-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12	6/10	10/8	16/6	35/2
Page 2.	8	10/12	16/17	18	19	20	21



3-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12	6/10	10/8	16/6
Page 2.	8	10	16	18	19	20



4-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	8	10-12	16

Through terminal blocks



2-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	8	10	16



3-conductor terminal blocks

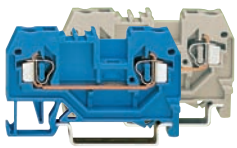
mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	8	10	16



4-conductor terminal blocks

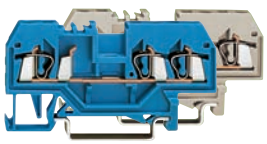
mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	8	11-12	16

Series 279 – 282 Through terminal blocks for hazardous environments Ex i and Ex e II



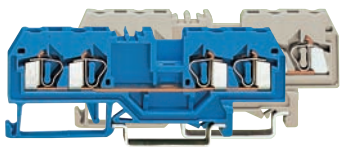
2-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12	6/10
Page 2.	8	10/12	16/17	18



3-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12	6/10
Page 2.	8	10	16	18



4-conductor terminal blocks

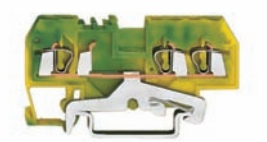
mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	8/9	10-12	16

Series 279 – 285 Ground (earth) conductor terminal blocks



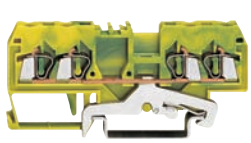
2-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12	6/10	10/8	16/6	35/2
Page 2.	8	10/12	16/17	18	19	20	21



3-conductor terminal blocks

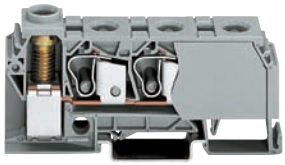
mm²/AWG	1.5/16	2.5/12	4/12	6/10	10/8	16/6
Page 2.	8	10/12	16	18	19	20



4-conductor terminal blocks

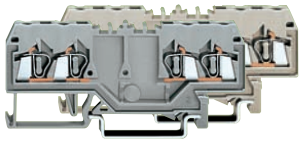
mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	8	10/11	16

Series 284 Distribution terminal blocks



mm²/AWG	35/2 and 3x10/3x8
Page 2.	25

Series 279/280 Double potential terminal blocks and Ex e II double potential terminal blocks



mm²/AWG	1.5/16	2.5/12
Page 2.	8	10/12

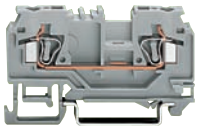
Series 279 – 281 Shield (screen) terminal blocks



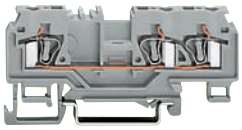
4-conductor terminal blocks

mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	8	10/11	16

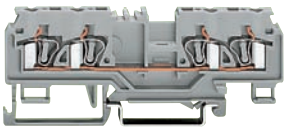
Series 880 Through terminal blocks without/with shield (screen) contact, Slim-Line, 5 mm/0.197 in wide



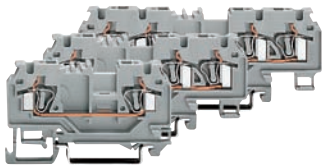
2-conductor terminal block
mm²/AWG | 4/12
Page 2. | 14



3-conductor terminal block
mm²/AWG | 4/12
Page 2. | 14

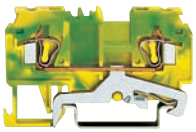


4-conductor terminal block
mm²/AWG | 4/12
Page 2. | 14



2- to 4-conductor terminal blocks
4 mm²/AWG 12 with ferrules
Page 2.15

Series 880 Ground (earth) conductor terminal blocks, Slim-Line, 5 mm/0.197 in wide



2-conductor terminal block
mm²/AWG | 4/12
Page 2. | 14



3-conductor terminal block
mm²/AWG | 4/12
Page 2. | 14

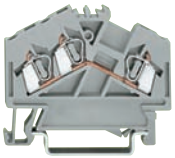


4-conductor terminal block
mm²/AWG | 4/12
Page 2. | 14



2- to 4-conductor terminal blocks
4 mm²/AWG 12 with ferrules
Page 2.15

Series 280/281 Through terminal blocks



3-conductor terminal blocks
mm²/AWG | 2.5/12 | 4/12
Page 2. | 12 | 17



4-conductor terminal block
mm²/AWG | 2.5/12
Page 2. | 13



3- and 4-conductor terminal blocks
mm²/AWG | 2.5/12
Page 2. | 12 - 13

Series 280/281 Through terminal blocks for hazardous environments Ex i and Ex e II



3- and 4-conductor terminal blocks
mm²/AWG | 2.5/12 | 4/12
Page 2. | 12 | 17

Series 280 Shield (screen) terminal blocks



3-conductor terminal block
mm²/AWG | 2.5/12
Page 2. | 12

Series 280/281 Ground (earth) conductor terminal blocks



3-conductor terminal blocks
mm²/AWG | 2.5/12 | 4/12
Page 2. | 12 | 17

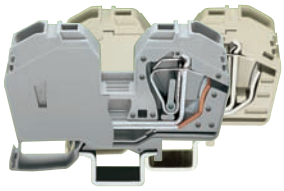
Series 283 Ground (earth) conductor terminal blocks Supply terminal blocks



Supply terminal block 0.2 – 16 mm²/AWG 24 – 6
283-609
Accessories end plate 283-320

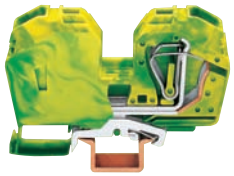
High Current Rail-Mounted Terminal Blocks and Multilevel Rail-Mounted Terminal Blocks – Product Summary –

Series 285 **Through terminal block and Ex e II through terminal block**



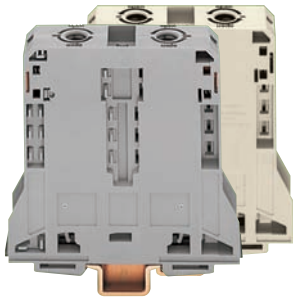
mm²/AWG	35/2
Page 2.	21

Series 285 **Ground (earth) conductor terminal block**



mm²/AWG	35/2
Page 2.	21

Series 285 **Through terminal block and Ex e II through terminal block**



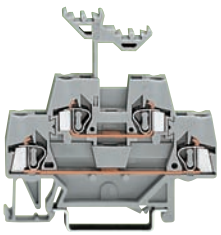
mm²/AWG	25 to 95/4 to 0000
Page 2.	24

Series 285 **Ground (earth) conductor terminal block**



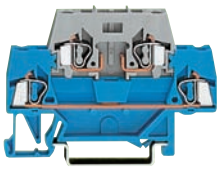
mm²/AWG	25 to 95/4 to 0000
Page 2.	24

Series 280/281 **Double deck terminal blocks (selection)**



Through/through connection

mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	29	30 - 32	33



Through/carrier connection

mm²/AWG	2.5/12
Page 2.	31

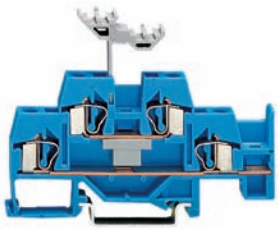


4-conductor terminal block

mm²/AWG	1.5/16	2.5/12
Page 2.	29	30

Series 280/281

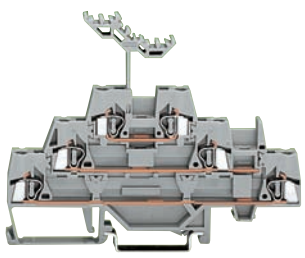
Ex i double deck terminal blocks



Through/through connection

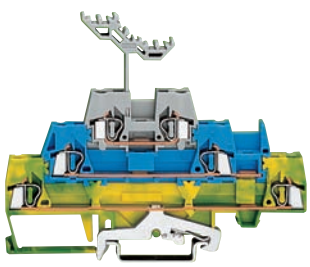
mm²/AWG	1.5/16	2.5/12	4/12
Page 2.	29	30	33

Series 280 **Triple deck terminal blocks (selection)**



Through/through/through connection

mm²/AWG	2.5/12
Page 2.	34 - 35



Ground (earth)/through/through connection

mm²/AWG	2.5/12
Page 2.	34 - 35

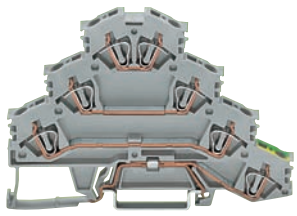


6-conductor ground (earth) terminal block

mm²/AWG	2.5/12
Page 2.	34 - 35

Series 281

Rail-mounted terminal blocks for wiring of electric motors



Quadruple deck

mm²/AWG	2.5/12
Page 2.	34 - 35

Accessories for Terminal Blocks

Accessories (selection)



Adjacent jumpers
Page 2.8



Alternate jumper
Page 2.8



Staggered jumper
Page 2.45



Wire jumper
Page 2.45



Step-down jumper
Pages 2.26 – 2.27



Comb type jumper bar
Page 2.44



Protective warning marker
Page 2.8



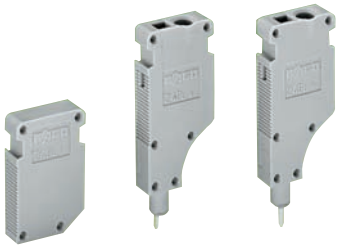
Insulation stops
Page 2.43



Busbar terminal blocks
Pages 11.20 – 11.21



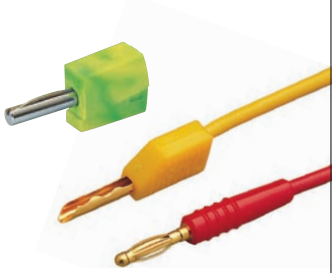
Modular test plugs
Page 2.40



Test plug modules
using cond. wire opening
Page 2.38



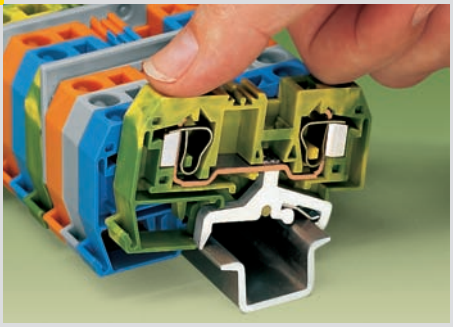
Test plug modules
using jumper contact position
Page 2.39 and 2.41



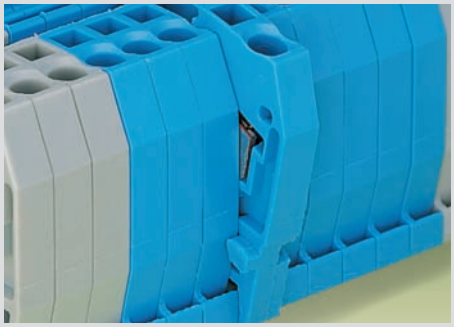
Banana plugs – Page 2.42
Test plugs

Rail-mounted Terminal Blocks with CAGE CLAMP® . . .
Series 279 to 285 and 880

Assembly

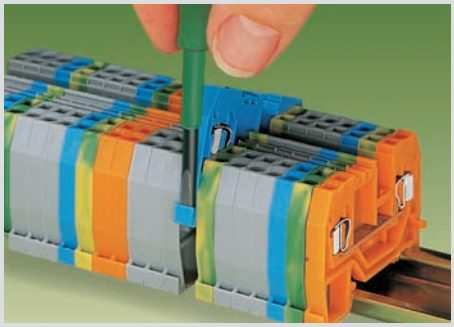


By snapping a ground (earth) conductor terminal block onto the carrier rail, a direct electrical connection is automatically made to the rail.



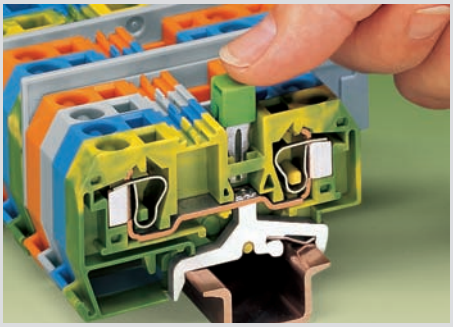
Quick assembly keys prevent reverse mounting

Removal



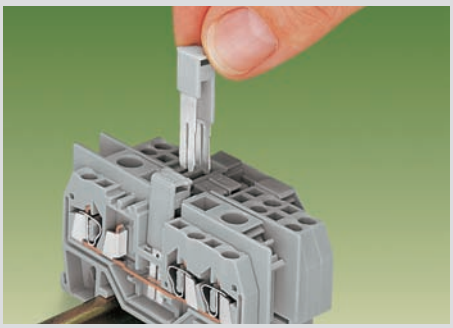
Removal of a terminal block from the assembly

Commoning



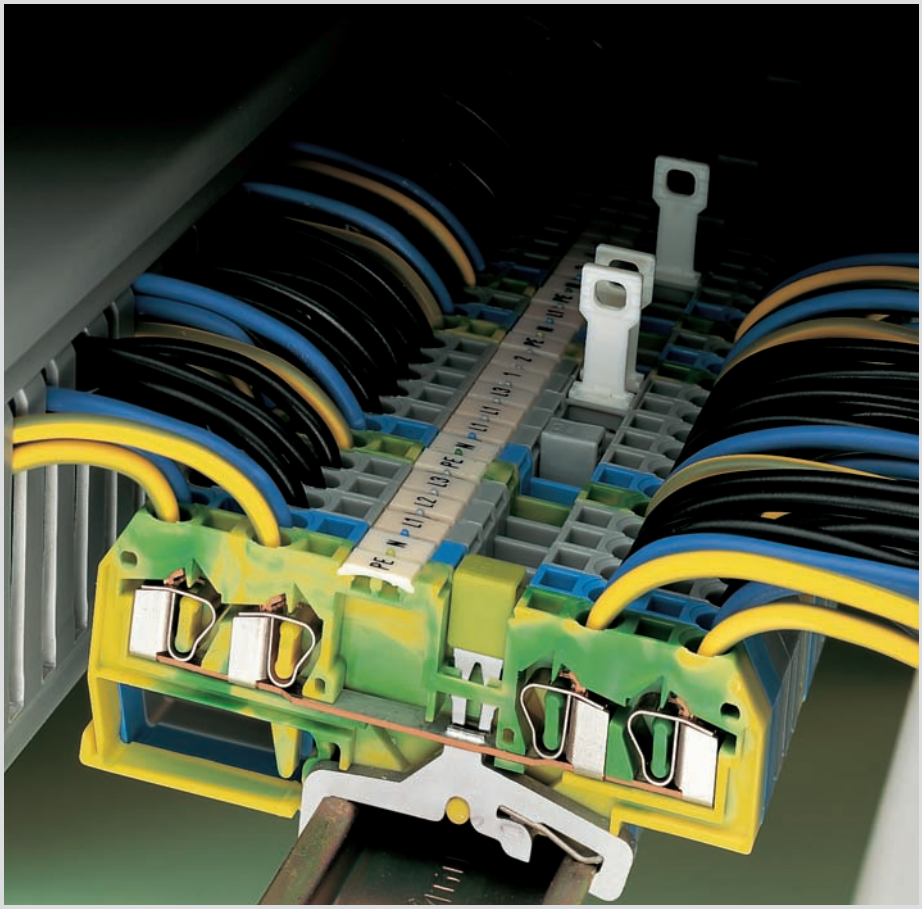
Commoning of ground (earth) cond. term. blocks with through term. bl. is possible in one direction only using adjacent jumpers. In addition to the required marking of these term. blocks, we also recommend the use of the yell.-green adj. jumpers.

Commoning

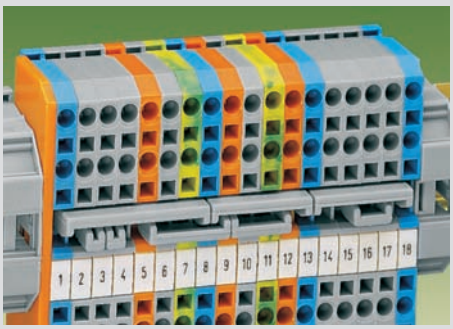


Commoning of terminal blocks of different sizes – step down
Application notes see page 2.26

According to EN 60947-7-2 [VDE 0611, part 3] steel carrier rails may not be used for PEN applications.

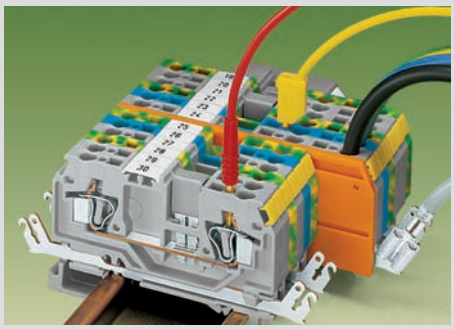


Commoning



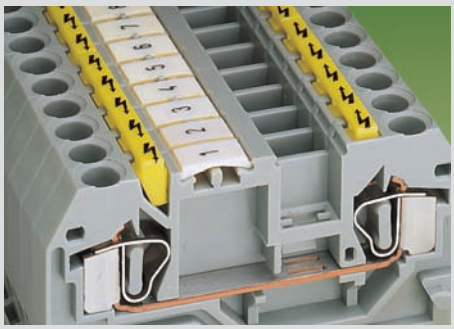
Staggered jumpers for sophisticated wiring jobs.
Application notes see page 2.45

Testing – Series 880



The terminal blocks of series 880 have an additional test slot for test plugs 2 mm / 0.079 in Ø or 2.3 mm / 0.091 in Ø

Protective warning marker



Protective warning markers inserted into the operating slots



CAGE CLAMP® clamps the following copper wires: *

solid



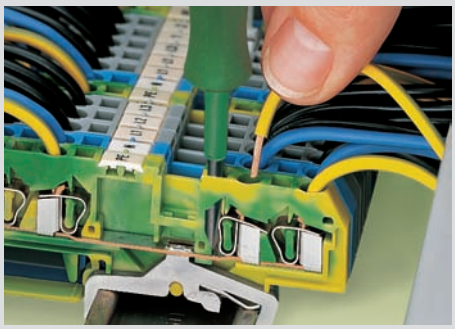
stranded



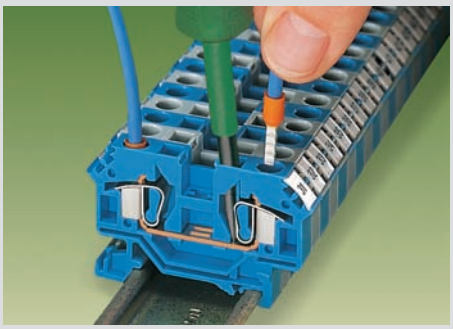
fine stranded, also with tinned single strands

* For aluminum wire see notes in section 15!

CAGE CLAMP® connection



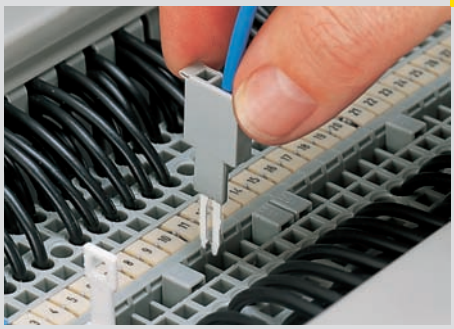
Connection of conductors



Connection of conductors

❶ When using conductors with ferrules, it is necessary to use a terminal block one size larger than the nominal cross section of the conductor

Testing



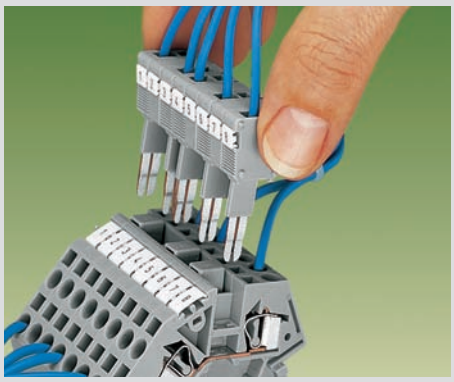
Testing with test plug.
Test plug with CAGE CLAMP®

Testing

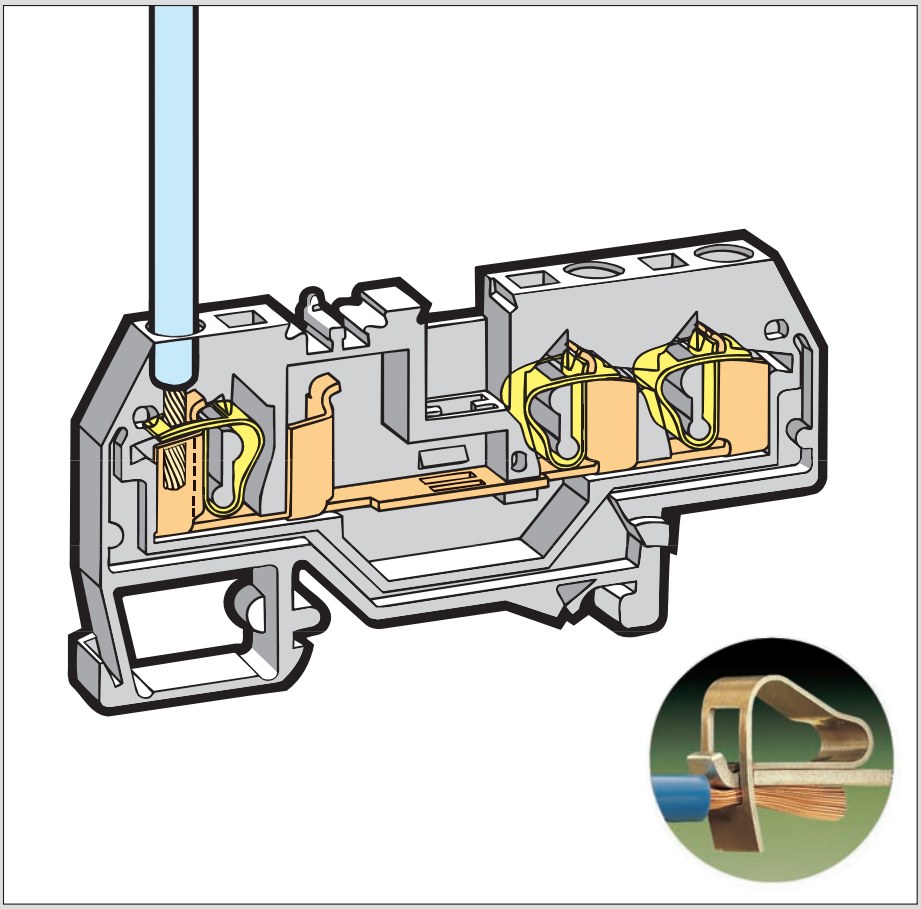


Test plug modules with CAGE CLAMP®. Testing using the conductor wire opening, see page 2.38

Testing



Test plug modules with CAGE CLAMP®. Testing using jumper contact position in current bar, see page 2.39



Marking

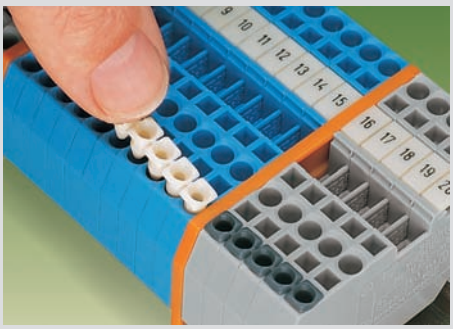


Marking with WMB multi-marking system or WSB quick marking system.
For other systems see section 14



fine-stranded wire – tip bonded

Insulation stop

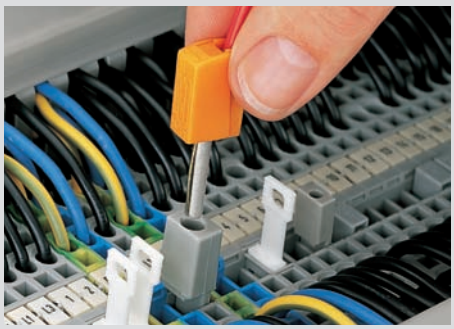


Insertion of insulation stop.
Application notes see page 2.43



fine-stranded wire with crimped ferrule ❶

Testing



Testing with banana plug 4 mm / 0.157 in Ø, using test plug adapter 209-170



fine-stranded wire with crimped pin terminal

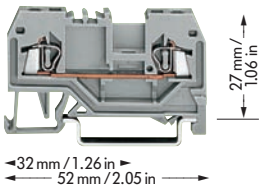
Through/Ground (Earth) Conductor/Shield (Screen) and Ex Terminal Blocks 1.5 mm² / AWG 16, Series 279

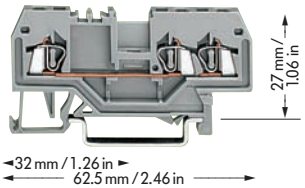
0.08 – 1.5 mm²	AWG 28 – 16
800 V/8 kV/3 ❶	600 V, 10 A
18 A	600 V, 10 A

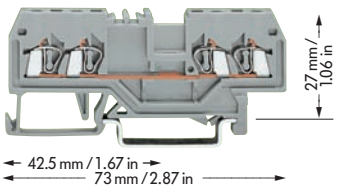
Terminal block width 4 mm / 0.157 in

8 – 9 mm / 0.33 in

* GL BV LR NV







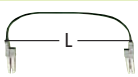
	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**279-901**	100
blue	**279-904**	100
orange	**279-902**	100
red	**279-903**	100
black	**279-905**	100
yellow	**279-906**	100
light grey Ex	**279-992**	100
2-conductor ground (earth) terminal blocks		
green-yellow	**279-907**	100
green-yellow Ex	**279-907/999-950**	100
Other terminal blocks with the same shape		
diode	**279-915/...-...**	page 7.56

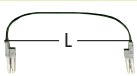
	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**279-681**	100
blue	**279-684**	100
orange	**279-682**	100
red	**279-683**	100
black	**279-685**	100
yellow	**279-686**	100
light grey Ex	**279-993**	100
3-conductor ground (earth) terminal blocks		
green-yellow	**279-687**	100
green-yellow Ex	**279-687/999-950**	100
Other terminal blocks with the same shape		
diode	**279-673/...-...**	page 7.56
LED	**279-674/...-...**	page 7.60

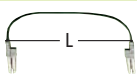
	Item No.	Pack. unit pcs
4-conductor through terminal blocks		
grey	**279-831**	100
blue	**279-834**	100
orange	**279-832**	100
red	**279-833**	**100**
black	**279-835**	100
yellow	**279-836**	100
light grey Ex	**279-994**	100
4-conductor ground (earth) terminal blocks		
green-yellow	**279-837**	100
green-yellow Ex	**279-837/999-950**	100
4-conductor shield (screen) terminal block		
white	**279-838**	100
Other terminal blocks with the same shape		
double potential	**279-826**	page 2.9
diode	**279-815/...-...**	page 7.56
LED	**279-809/...-...**	page 7.60

Accessories Series 279

Appropriate marking system **WMB/WSB/WFB** (see section 14)

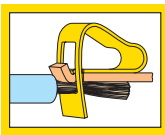
		Item No.	Pack. unit pcs
End and intermediate plate, 2 mm / 0.079 in thick			
	orange	**279-328**	100 (4 x 25)
	grey	**279-325**	100 (4 x 25)
	light grey	**279-330**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick			
	orange	**279-329**	100 (4 x 25)
	grey	**279-326**	100 (4 x 25)
	light grey	**279-331**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip			
	white	**279-470**	200 strips
	dark grey	**279-471**	200 strips
Adjacent jumper, insulated, I_N 15 A			
	grey	**279-402**	200 (8 x 25)
	yell.-green	**279-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 15 A			
	grey	**279-409**	100 (4 x 25)
Push-in type wire jumper ❸, insulated, I_N 9 A			
	L = 60 mm	**249-125**	10
	L = 110 mm	**249-126**	10
	L = 250 mm	**249-127**	10
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)			

		Item No.	Pack. unit pcs
End and intermediate plate, 2 mm / 0.079 in thick			
	orange	**279-339**	100 (4 x 25)
	grey	**279-308**	100 (4 x 25)
	light grey	**279-341**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick			
	orange	**279-340**	100 (4 x 25)
	grey	**279-309**	100 (4 x 25)
	light grey	**279-342**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip			
	white	**279-470**	200 strips
	dark grey	**279-471**	200 strips
Adjacent jumper, insulated, I_N 15 A			
	grey	**279-402**	200 (8 x 25)
	yell.-green	**279-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 15 A			
	grey	**279-409**	100 (4 x 25)
Push-in type wire jumper ❸, insulated, I_N 9 A			
	L = 60 mm	**249-125**	10
	L = 110 mm	**249-126**	10
	L = 250 mm	**249-127**	10
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)			

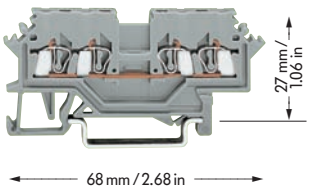
		Item No.	Pack. unit pcs
End and intermediate plate, 2 mm / 0.079 in thick			
	orange	**279-346**	100 (4 x 25)
	grey	**279-344**	100 (4 x 25)
	light grey	**279-348**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick			
	orange	**279-347**	100 (4 x 25)
	grey	**279-345**	100 (4 x 25)
	light grey	**279-349**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip			
	white	**279-470**	200 strips
	dark grey	**279-471**	200 strips
Adjacent jumper, insulated, I_N 15 A			
	grey	**279-402**	200 (8 x 25)
	yell.-green	**279-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 15 A			
	grey	**279-409**	100 (4 x 25)
Push-in type wire jumper ❸, insulated, I_N 9 A			
	L = 60 mm	**249-125**	10
	L = 110 mm	**249-126**	10
	L = 250 mm	**249-127**	10
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)			

* For further approvals with corresponding ratings see section 15.

Double Potential Terminal Blocks 1.5 mm² / AWG 16, Series 279

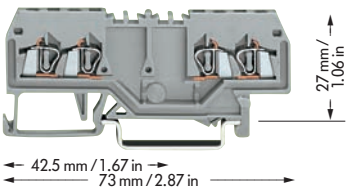


0.08 – 1.5 mm² | **AWG 28 – 16**
800 V/8 kV/3 ❶ | **600 V, 10 A**
18 A | **600 V, 10 A**
Terminal block width 4 mm / 0.157 in
8 – 9 mm / 0.33 in



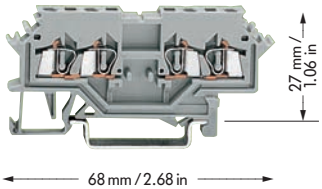
	Item No.	Pack. unit pcs
4-conductor through terminal blocks		
grey	**279-621**	100
blue	**279-604** ❷	100
light grey Ex	**279-990**	100
Other terminal blocks with the same shape		
double potential	**279-626**	
diode	**279-623/...-...**	page 7.56
LED	**279-624/...-...**	page 7.60
End and intermediate plate, 2 mm / 0.079 in thick		
orange	**279-317**	100 (4 x 25)
grey	**279-316**	100 (4 x 25)
light grey	**279-318**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick		
orange	**279-327**	100 (4 x 25)
grey	**279-337**	100 (4 x 25)
light grey	**279-338**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip		
white	**279-470**	200 strips
dark grey	**279-471**	200 strips
Adjacent jumper, insulated, I_N 15 A		
grey	**279-402**	200 (8 x 25)
yell.-green	**279-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 15 A		
grey	**279-409**	100 (4 x 25)
Push-in type wire jumper ❸, insulated, I_N 9 A		
L = 60 mm	**249-125**	10
L = 110 mm	**249-126**	10
L = 250 mm	**249-127**	10
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot		
yellow	**279-415**	100 (4 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 4 mm², 5 mm / 0.197 in wide		
	280-404	100 (4 x 25)
or. test plug 210-137 (2.3 mm Ø)		
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm / 0.315 in wide		
	209-170	50 (2 x 25)
for test plug 4 mm / 0.157 in Ø		
Comp type jumper bar (see right column)		

0.08 – 1.5 mm² | **AWG 28 – 16**
800 V/8 kV/3 ❶ | **600 V, 10 A**
18 A | **600 V, 10 A**
Terminal block width 4 mm / 0.157 in
8 – 9 mm / 0.33 in



	Item No.	Pack. unit pcs
Double potential terminal blocks, with double marker receptacle in the center of the terminal block		
grey	**279-826**	100
light grey Ex	**279-995**	100
Attention! These double potential terminal blocks cannot be commoned with adjacent jumpers!		
End and intermediate plate, 2 mm / 0.079 in thick		
orange	**279-346**	100 (4 x 25)
grey	**279-344**	100 (4 x 25)
light grey	**279-348**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick		
orange	**279-347**	100 (4 x 25)
grey	**279-345**	100 (4 x 25)
light grey	**279-349**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip		
white	**279-470**	200 strips
dark grey	**279-471**	200 strips
Comb type jumper bar ❸, insulated, $I_N = I_N$ of terminal block		
2-way	**279-482**	200 (8 x 25)
3-way	**279-483**	200 (8 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**279-492**	200 (8 x 25)
Operating tool, insulated		
2-way	**279-432**	1
3-way	**279-433**	1

0.08 – 1.5 mm² | **AWG 28 – 16**
800 V/8 kV/3 ❶ | **600 V, 10 A**
18 A | **600 V, 10 A**
Terminal block width 4 mm / 0.157 in
8 – 9 mm / 0.33 in



	Item No.	Pack. unit pcs
Double potential terminal blocks, with marker receptacle on the side of the terminal block		
grey	**279-626**	100
light grey Ex	**279-989**	100
Attention! These double potential terminal blocks cannot be commoned with adjacent jumpers!		
End and intermediate plate, 2 mm / 0.079 in thick		
orange	**279-317**	100 (4 x 25)
grey	**279-316**	100 (4 x 25)
light grey	**279-318**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick		
orange	**279-327**	100 (4 x 25)
grey	**279-337**	100 (4 x 25)
light grey	**279-338**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip		
white	**279-470**	200 strips
dark grey	**279-471**	200 strips
Comb type jumper bar ❸, insulated, $I_N = I_N$ of terminal block		
2-way	**279-482**	200 (8 x 25)
3-way	**279-483**	200 (8 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**279-492**	200 (8 x 25)
Operating tool, insulated		
2-way	**279-432**	1
3-way	**279-433**	1

Double potential terminal blocks are space savers. Two independent through terminal blocks are placed in one insulated housing on one level. The width of the housing is only 4 mm / 0.157 in. Compared to standard through terminal blocks, the width is only 2 mm / 0.079 in for a total height of only 27 mm / 1.063 in from the upper edge of the carrier rail. 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.

❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

❷ Suitable for Ex i applications

Ex Suitable for Ex e II applications
0.2 – 1.5 mm² AWG 24 – 16
550 V, 15 A
(see also section 13)
Ex e / Ex i separator see page 2.13

❸ See application notes on pages 2.43 – 2.45

Through/Ground (Earth) Conductor/Shield (Screen) and Ex Terminal Blocks 2.5 mm² / AWG 12, Series 280

0.08 – 2.5 mm²	AWG 28 – 12
800 V/8 kV/3 ❶	600 V, 20 A UL
24 A	600 V, 25 A CSA

Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

* UL CSA KEMA CCA KEMA N D GL BV LR NV Ex

0.08 – 2.5 mm²	AWG 28 – 12
800 V/8 kV/3 ❶	600 V, 20 A UL
24 A	600 V, 25 A CSA

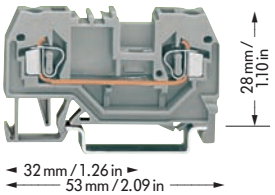
Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

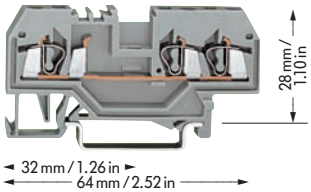
* UL CSA KEMA CCA KEMA D GL BV LR NV Ex

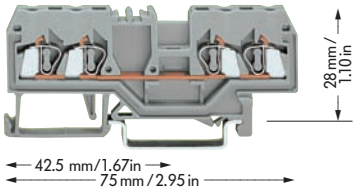
0.08 – 2.5 mm²	AWG 28 – 12
800 V/8 kV/3 ❶	600 V, 20 A UL
20 A	600 V, 25 A CSA

Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

* UL CSA KEMA CCA KEMA GL BV LR NV Ex







	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**280-901**	100
blue	**280-904**	100
orange	**280-902**	100
red	**280-903**	100
black	**280-905**	100
yellow	**280-906**	100
light grey Ex	**280-992**	100
2-conductor ground (earth) terminal blocks		
green-yellow	**280-907**	100
green-yellow Ex	**280-907/999-950**	100
Other terminal blocks with the same shape		
disconnect	**280-912**	page 7.10
carrier term. block	**280-916**	page 7.35
diode	**280-915/...-...**	page 7.57
spacer	**280-902/056-000**	

	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**280-681**	100
blue	**280-684**	100
orange	**280-650**	100
red	**280-653**	100
black	**280-671**	100
yellow	**280-672**	100
light grey Ex	**280-993**	100
3-conductor ground (earth) terminal blocks		
green-yellow	**280-687**	100
green-yellow Ex	**280-687/999-950**	100
Other terminal blocks with the same shape		
disconnect	**280-683**	page 7.10
carrier term. block	**280-610**	page 7.35
diode	**280-673/...-...**	page 7.57
spacer	**280-650/056-000**	

	Item-No.	Pack.-unit pcs
4-conductor through terminal blocks		
grey	**280-833**	100
blue	**280-834**	100
orange	**280-835**	100
red	**280-830**	**100**
black	**280-831**	100
yellow	**280-832**	100
light grey Ex	**280-994**	100
4-conductor ground (earth) terminal blocks		
green-yellow	**280-837**	100
green-yellow Ex	**280-837/999-950**	100
4-conductor shield (screen) terminal block		
white	**280-838**	100
Other terminal blocks with the same shape		
double potential	**280-826**	page 2.11
disconnect	**280-836**	page 7.10
disc., test a. meas.	**280-829**	page 7.10
carrier term. block	**280-816**	page 7.35
diode	**280-815/...-...**	page 7.57
LED	**280-809/...-...**	page 7.60
spacer	**280-835/056-000**	

Accessories Series 280

Appropriate marking system **WMB/WSB/WFB** (see section 14)

End and intermediate plate, 2.5 mm/0.098 in thick



orange	**280-309**	100 (4 x 25)
grey	**280-308**	100 (4 x 25)
light grey	**280-356**	100 (4 x 25)

End and intermediate plate, 2.5 mm/0.098 in thick



orange	**280-326**	100 (4 x 25)
grey	**280-324**	100 (4 x 25)
light grey	**280-358**	100 (4 x 25)

End and intermediate plate, 2.5 mm/0.098 in thick



orange	**280-315**	100 (4 x 25)
grey	**280-314**	100 (4 x 25)
light grey	**280-352**	100 (4 x 25)

Separator, oversized, 2 mm/0.079 in thick



orange	**280-311**	100 (4 x 25)
grey	**280-310**	100 (4 x 25)
light grey	**280-357**	100 (4 x 25)

Separator, oversized, 2 mm/0.079 in thick



orange	**280-346**	100 (4 x 25)
grey	**280-344**	100 (4 x 25)
light grey	**280-359**	100 (4 x 25)

Separator, oversized, 2 mm/0.079 in thick



orange	**280-335**	100 (4 x 25)
grey	**280-334**	100 (4 x 25)
light grey	**280-353**	100 (4 x 25)

Insulation stop ❸, 5 pcs/strip



white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Insulation stop ❸, 5 pcs/strip



white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Insulation stop ❸, 5 pcs/strip



white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Adjacent jumper, insulated, I_N 24 A, Ex 23 A



grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Adjacent jumper, insulated, I_N 24 A, Ex 22 A



grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Adjacent jumper, insulated, I_N 24 A, Ex 20 A



grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Staggered jumper ❸, insulated, I_N 24 A, Ex 23 A



width 5 mm/0.197 in		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)

Staggered jumper ❸, insulated, I_N 24 A, Ex 22 A



width 5 mm/0.197 in		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)

Staggered jumper ❸, insulated, I_N 24 A, Ex 20 A



width 5 mm/0.197 in		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)

Protective warning marker, comp type jumper bar, test plug adapter, etc. (see page 2.13)

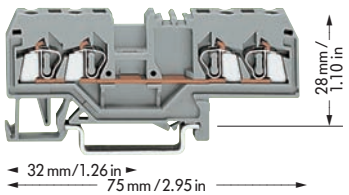
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see page 2.13)

Protective warning marker, comp type jumper bar, test plug adapter, etc. (see page 2.13)

* For further approvals with corresponding ratings see section 15.

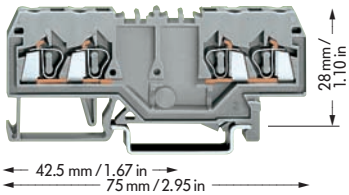
Double Potential Terminal Blocks 2.5 mm² / AWG 12, Series 280

0.08 – 2.5 mm² | **AWG 28 – 12**
800 V/8 kV/3 ❶ | **600 V, 20 A**
20 A | **600 V, 25 A**
Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in
* GL BV LR NV

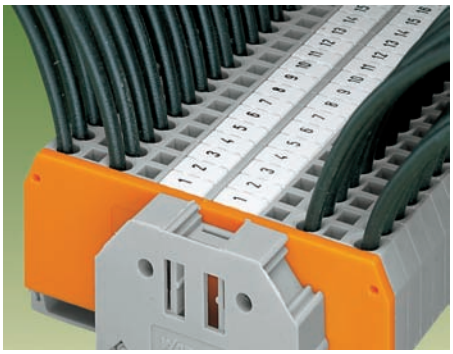


	Item No.	Pack. unit pcs
4-conductor through terminal blocks		
grey	**280-633**	100
blue	**280-634** ②	100
orange	**280-603**	100
light grey Ex	**280-999**	100
4-conductor ground (earth) terminal blocks		
green-yellow	**280-677**	100
green-yellow Ex	**280-677/999-950**	100
4-conductor shield (screen) terminal block		
white	**280-678**	100
Other terminal blocks with the same shape		
double potential	**280-626**	page 2.11
disconnect	**280-685**	page 7.11
disc., test a. meas.	**280-649**	page 7.11
carrier term. block	**280-686**	page 7.35
diode	**280-655/...-...**	page 7.57
LED	**280-658/...-...**	page 7.61

0.08 – 2.5 mm² | **AWG 28 – 12**
800 V/8 kV/3 ❶ | **600 V, 15 A**
24 A | **600 V, 15 A**
Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in
* GL BV LR NV

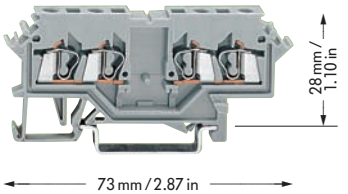


	Item No.	Pack. unit pcs
Double potential terminal blocks, with double marker receptacle in the center of the terminal block		
grey	**280-826**	100
light grey Ex	**280-995**	100
Attention! These double potential terminal blocks cannot be commoned with adjacent jumpers!		



Terminal block marking directly on the terminal block either with WSB or WMB markers.

0.08 – 2.5 mm² | **AWG 28 – 12**
800 V/8 kV/3 ❶ | **600 V, 15 A**
24 A | **600 V, 20 A**
Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in
* GL BV LR NV



	Item No.	Pack. unit pcs
Double potential terminal blocks, with marker receptacle on the side of the terminal block		
grey	**280-626**	100
light grey Ex	**280-989**	100
Attention! These double potential terminal blocks cannot be commoned with adjacent jumpers!		

❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

② Suitable for Ex i applications

Ex Suitable for Ex e II applications
0.2 – 2.5 mm² AWG 24 – 12
550 V, 20 A
(see also section 13)
When using staggered jumpers the max. rated voltage will be reduced to 275 V.
Ex e/Ex i separator see page 2.13

❸ See application notes on pages 2.38 – 2.45

End and intermediate plate, 2.5 mm/0.098 in thick



orange	**280-315**	100 (4 x 25)
grey	**280-314**	100 (4 x 25)
light grey	**280-352**	100 (4 x 25)

Separator, oversized, 2 mm / 0.079 in thick



orange	**280-335**	100 (4 x 25)
grey	**280-334**	100 (4 x 25)
light grey	**280-353**	100 (4 x 25)

Insulation stop ❸, 5 pcs / strip



white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Adjacent jumper, insulated, I_N 24 A, Ex 20 A



grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Staggered jumper ❸, insulated, I_N 24 A, Ex 20 A



width 5 mm / 0.197 in

from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)

Protective warning marker, comp type jumper bar, test plug adapter, etc. (see page 2.13)

End and intermediate plate, 2.5 mm/0.098 in thick



orange	**280-315**	100 (4 x 25)
grey	**280-314**	100 (4 x 25)
light grey	**280-352**	100 (4 x 25)

Separator, oversized, 2 mm / 0.079 in thick



orange	**280-335**	100 (4 x 25)
grey	**280-334**	100 (4 x 25)
light grey	**280-353**	100 (4 x 25)

Insulation stop ❸, 5 pcs / strip



white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Comb type jumper bar ❸, insulated,



$I_N = I_N$ of terminal block

2-way	**280-482**	200 (8 x 25)
3-way	**280-483**	200 (8 x 25)

Alternate comb type jumper bar, insulated,



$I_N = I_N$ of terminal block

2-way	**280-492**	200 (8 x 25)

Operating tool, insulated



2-way	**280-432**	1
3-way	**280-433**	1

End and intermediate plate, 2.5 mm/0.098 in thick



orange	**280-317**	100 (4 x 25)
grey	**280-316**	100 (4 x 25)
light grey	**280-364**	100 (4 x 25)

Separator, oversized, 2 mm / 0.079 in thick



orange	**280-327**	100 (4 x 25)
grey	**280-337**	100 (4 x 25)
light grey	**280-365**	100 (4 x 25)

Insulation stop ❸, 5 pcs / strip



white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Comb type jumper bar ❸, insulated,



$I_N = I_N$ of terminal block

2-way	**280-482**	200 (8 x 25)
3-way	**280-483**	200 (8 x 25)

Alternate comb type jumper bar, insulated,



$I_N = I_N$ of terminal block

2-way	**280-492**	200 (8 x 25)

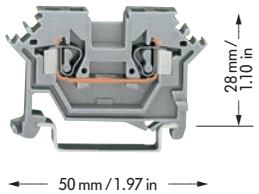
Operating tool, insulated

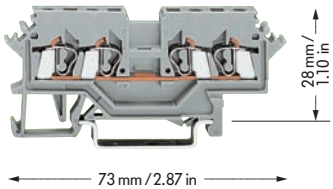


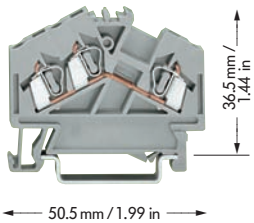
2-way	**280-432**	1
3-way	**280-433**	1

Through/Ground (Earth) Conductor/Shield (Screen) and Ex Terminal Blocks 2.5 mm² / AWG 12, Series 280

0.08 – 2.5 mm² / 800 V/8 kV/3 ❶ / 24 A	AWG 28 – 12 / 600 V, 20 A / 600 V, 25 A	0.08 – 2.5 mm² / 800 V/8 kV/3 ❶ / 24 A	AWG 28 – 12 / 600 V, 15 A / 600 V, 15 A	0.08 – 2.5 mm² / 800 V/8 kV/3 ❶ / 24 A	AWG 28 – 12 / 600 V, 20 A / 600 V, 25 A
Terminal block width 5 mm / 0.197 in		Terminal block width 5 mm / 0.197 in		Terminal block width 5 mm / 0.197 in	
8 – 9 mm / 0.33 in		8 – 9 mm / 0.33 in		8 – 9 mm / 0.33 in	
* GL BV LR NV		* SABS GL BV LR NV		* GL BV LR NV	







	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**280-601**	100
blue	**280-602**	100
light grey Ex	**280-691**	100
2-conductor ground (earth) terminal blocks		
green-yellow	**280-607**	100
green-yellow Ex	**280-607/999-950**	100
Other terminal blocks with the same shape		
disconnect	**280-612**	page 7.11
carrier term. block	**280-616**	page 7.35
term. bl. f. pl. mod.	**280-618**	W4, vol. 3
diode	**280-613/...-...**	page 7.57
variable transistor	**280-615/...-...**	page 7.58

	Item No.	Pack. unit pcs
4-conductor through terminal blocks		
grey	**280-621**	100
blue	**280-604**	100
light grey Ex	**280-990**	100
Other terminal blocks with the same shape		
double potential	**280-626**	page 2.11
disconnect	**280-622**	page 7.11
disc., test a. meas.	**280-627**	page 7.11
carrier term. block	**280-606**	page 7.35
term. bl. f. pl. mod.	**280-608**	W4, vol. 3
diode	**280-623/...-...**	page 7.57
LED	**280-624/...-...**	page 7.60

	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**280-641**	100
blue	**280-651**	100
orange	**280-654**	100
light grey Ex	**280-998**	100
3-conductor ground (earth) terminal blocks		
green-yellow	**280-637**	100
green-yellow Ex	**280-637/999-950**	100
3-conductor shield (screen) terminal block		
white	**280-640**	100
Other terminal blocks with the same shape		
spacer	**280-654/056-000**	

Accessories Series 280

Appropriate marking system **WMB/WSB/WFB** (see section 14)

End and intermediate plate, 2.5 mm/0.098 in thick



	Item No.	Pack. unit pcs
orange	**280-331**	100 (4 x 25)
grey	**280-330**	100 (4 x 25)
light grey	**280-362**	100 (4 x 25)

End and intermediate plate, 2.5 mm/0.098 in thick



	Item No.	Pack. unit pcs
orange	**280-317**	100 (4 x 25)
grey	**280-316**	100 (4 x 25)
light grey	**280-364**	100 (4 x 25)

End and intermediate plate, 2.5 mm/0.098 in thick



	Item No.	Pack. unit pcs
orange	**280-313**	100 (4 x 25)
grey	**280-312**	100 (4 x 25)
light grey	**280-354**	100 (4 x 25)

Separator, oversized, 2 mm/0.079 in thick



	Item No.	Pack. unit pcs
orange	**280-328**	100 (4 x 25)
grey	**280-338**	100 (4 x 25)
light grey	**280-363**	100 (4 x 25)

Separator, oversized, 2 mm/0.079 in thick



	Item No.	Pack. unit pcs
orange	**280-327**	100 (4 x 25)
grey	**280-337**	100 (4 x 25)
light grey	**280-365**	100 (4 x 25)

Separator, oversized, 2.5 mm/0.098 in thick



	Item No.	Pack. unit pcs
orange	**280-318**	100 (4 x 25)
grey	**280-348**	100 (4 x 25)
light grey	**280-355**	100 (4 x 25)

Insulation stop ❸, 5 pcs/strip



	Item No.	Pack. unit pcs
white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Insulation stop ❸, 5 pcs/strip



	Item No.	Pack. unit pcs
white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Insulation stop ❸, 5 pcs/strip



	Item No.	Pack. unit pcs
white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips

Adjacent jumper, insulated, I_N 24 A, Ex 23 A



	Item No.	Pack. unit pcs
grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Adjacent jumper, insulated, I_N 24 A, Ex 22 A



	Item No.	Pack. unit pcs
grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Adjacent jumper, insulated, I_N 24 A, Ex 23 A



	Item No.	Pack. unit pcs
grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Staggered jumper ❸, insulated, I_N 24 A, Ex 23 A



	Item No.	Pack. unit pcs
width 5 mm / 0.197 in		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)

Staggered jumper ❸, insulated, I_N 24 A, Ex 22 A



	Item No.	Pack. unit pcs
width 5 mm / 0.197 in		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)

Staggered jumper ❸, insulated, I_N 24 A, Ex 23 A



	Item No.	Pack. unit pcs
width 5 mm / 0.197 in		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)

Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)

Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)

Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)

* For further approvals with corresponding ratings see section 15.

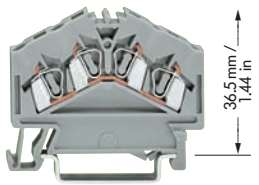
0.08 – 2.5 mm²
800 V/8 kV/3 ❶
24 A

AWG 28 – 12
600 V, 20 A
600 V, 25 A

Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

* GL BV LR NV

Accessories Series 280



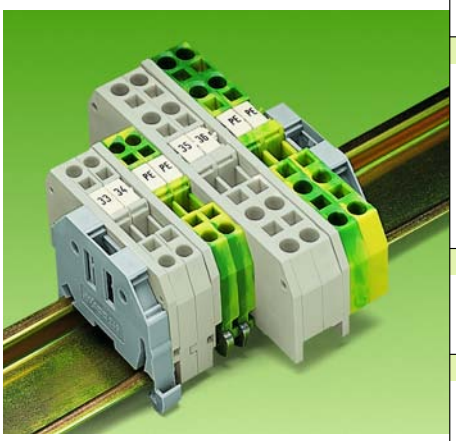
❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

❷ Suitable for Ex i applications

Ⓔx Suitable for Ex e II applications
0.2 – 2.5 mm² AWG 24 – 12
550 V, 20 A
(see also section 13)
When using staggered jumpers the max. rated voltage will be reduced to 275 V.

❸ See application notes on pages 2.38 – 2.45

	Item No.	Pack. unit pcs
4-conductor through terminal blocks		
grey	**280-646**	100
blue	**280-656** ❷	100
orange	**280-946**	100
light grey Ⓔx	**280-996**	100
Attention! These terminal blocks cannot be commoned with adjacent jumpers!		

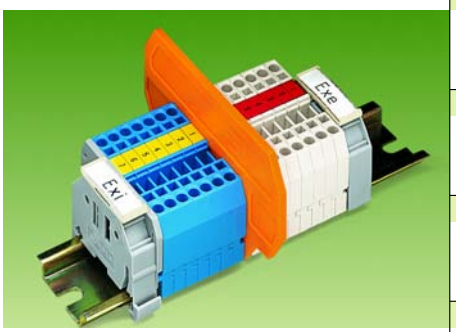


In order to meet the air and creepage distances specified for Ex e applications it is necessary to insert an end or intermediate plate between a through and a ground (earth) conductor terminal block.

	Item No.	Pack. unit pcs
Insulation stop ❸, 5 pcs/strip		
white	**280-470**	200 strips
light grey	**280-471**	200 strips
dark grey	**280-472**	200 strips
Adjacent jumper, insulated, I_N 24 A, Ⓔx 20 A		
grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 24 A, Ⓔx 20 A		
grey	**280-409**	100 (4 x 25)
Staggered jumper ❸, insulated, I_N 24 A, Ⓔx 20 A		
width 5 mm / 0.197 in		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
:	:	
from 1 to 8	**780-458**	50 (2 x 25)
Push-in type wire jumper ❸, insulated, I_N 9 A		
L = 60 mm	**249-125**	10
L = 110 mm	**249-126**	10
L = 250 mm	**249-127**	10
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot		
yellow	**280-415**	100 (4 x 25)
Comb type jumper bar ❸, insulated, $I_N = I_N$ of terminal block		
2-way	**280-482**	200 (8 x 25)
3-way	**280-483**	200 (8 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**280-492**	200 (8 x 25)

		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick			
	orange	**280-313**	100 (4 x 25)
	grey	**280-312**	100 (4 x 25)
	light grey	**280-354**	100 (4 x 25)
Separator, oversized, 2.5 mm/0.098 in thick			
	orange	**280-318**	100 (4 x 25)
	grey	**280-348**	100 (4 x 25)
	light grey	**280-355**	100 (4 x 25)
Insulation stop ❸, 5 pcs/strip			
	white	**280-470**	200 strips
	light grey	**280-471**	200 strips
	dark grey	**280-472**	200 strips
Comb type jumper bar ❸, insulated, $I_N = I_N$ of terminal block			
	2-way	**280-482**	200 (8 x 25)
	3-way	**280-483**	200 (8 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block			
	2-way	**280-492**	200 (8 x 25)
Operating tool, insulated			
	2-way	**280-432**	1
	3-way	**280-433**	1
Test plug module ❸, testing using conductor entry holes			
see page 2.38			

	Item No.	Pack. unit pcs
Ex e/Ex i separator, 3 mm/0.118 in thick, orange		
90 mm wide	**209-190**	50 (2 x 25)
120 mm w.	**209-191**	50 (2 x 25)

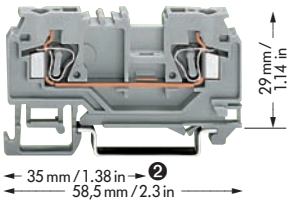


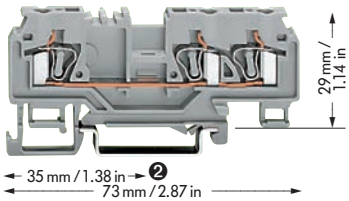
Separator for Ex e/Ex i applications
According to EN 50020 a minimum distance of 50 mm must be kept between live parts of Ex e and Ex i circuits. When mounting Ex e and Ex i rail-mounted terminal blocks together on a common rail WAGO offers a space saving solution to the problem by using the Ex e/Ex i separators.
Suitable for series 279 to 282.
209-190 for 2-conductor terminal blocks.
209-191 for 2-, 3-, 4-conductor terminal blocks.

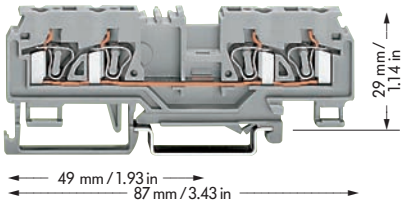
	Item No.	Pack. unit pcs
Operating tool, insulated		
2-way	**280-432**	1
3-way	**280-433**	1
Test plug module ❸, testing using jumper contact slots or conductor entry holes		
Test plug, with cable 500 mm/17.7"		
2 mm Ø, red	**210-136**	50 (5 x 10)
2.3 mm Ø, yel.	**210-137**	50 (5 x 10)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 4 mm², 5 mm/0.197 in wide		
	280-404	100 (4 x 25)
for test plug 210-137 (2.3 mm Ø)		
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm/0.315 in wide		
	209-170	50 (2 x 25)
for test plug 4 mm/0.157 in Ø		
Test plug, 6 mm/0.236 in wide, with CAGE CLAMP® for 0.08 mm² – 2.5 mm²/AWG 28 – 14		
I_N 24 A	**281-407**	100 (4 x 25)
Banana plugs, 4 mm/0.157 in Ø, color mixed		
see page 2.42		

Through and Ground (Earth) Conductor Terminal Blocks, Terminal Block Width 5 mm / 0.197 in, 4 mm² / AWG 12 Series 880

0.08 – 4 mm²** 800 V/8 kV/3 ❶ 25 A | AWG 28 – 12 cULus ❶ Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in * cULus KEMA CCA KEMA GL BV LR	0.08 – 4 mm²** 800 V/8 kV/3 ❶ 25 A | AWG 28 – 12 cULus ❶ Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in * cULus KEMA CCA KEMA GL BV LR	0.08 – 4 mm²** 800 V/8 kV/3 ❶ 20 A | AWG 28 – 12 cULus ❶ Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in * cULus







Item No.	Pack. unit pcs
Through terminal block without/with shield (screen) contact and test slot for test plug Ø 2 mm / 0.079 in and Ø 2.3 mm / 0.091 in, for DIN 35 rail	
2-conductor through terminal blocks without shield (screen) contact	
grey **880-901**	100
blue **880-904**	100
orange **880-902**	100
2-conductor through terminal blocks with shield (screen) contact – please contact factory	
2-conductor ground (earth) terminal block	
green-yellow **880-907**	100

Item No.	Pack. unit pcs
Through terminal block without/with shield (screen) contact and test slot for test plug Ø 2 mm / 0.079 in and Ø 2.3 mm / 0.091 in, for DIN 35 rail	
3-conductor through terminal blocks without shield (screen) contact	
grey **880-681**	100
blue **880-684**	100
orange **880-682**	100
3-conductor through terminal blocks with shield (screen) contact – please contact factory	
3-conductor ground (earth) terminal block	
green-yellow **880-687**	100

Item No.	Pack. unit pcs
Through terminal block without/with shield (screen) contact and test slot for test plug Ø 2 mm / 0.079 in and Ø 2.3 mm / 0.091 in, for DIN 35 rail	
4-conductor through terminal blocks without shield (screen) contact	
grey **880-831**	100
blue **880-834**	100
orange **880-832**	100
4-conductor ground (earth) terminal block	
green-yellow **880-837**	100

Accessories Series 880

Appropriate marking system **WMB/WSB oder Mini-WSB** (see section 14)

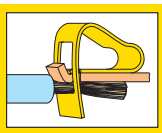
End and intermediate plate, 2.5 mm/0.098 in thick	orange **880-328** 100 (4 x 25) grey **880-325** 100 (4 x 25)	**End and intermediate plate,** 2.5 mm/0.098 in thick	orange **880-339** 100 (4 x 25) grey **880-308** 100 (4 x 25)	**End and intermediate plate,** 2.5 mm/0.098 in thick	orange **880-346** 100 (4 x 25) grey **880-344** 100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick	orange **880-329** 100 (4 x 25) grey **880-326** 100 (4 x 25)	**Separator,** oversized, 2 mm / 0.079 in thick	orange **880-340** 100 (4 x 25) grey **880-309** 100 (4 x 25)	**Separator,** oversized, 2 mm / 0.079 in thick	orange **880-347** 100 (4 x 25) grey **880-345** 100 (4 x 25)
Insulation stop ❹, 5 pcs / strip	white **280-470** 200 strips light grey **280-471** 200 strips dark grey **280-472** 200 strips	**Insulation stop ❹,** 5 pcs / strip	white **280-470** 200 strips light grey **280-471** 200 strips dark grey **280-472** 200 strips	**Insulation stop ❹,** 5 pcs / strip	white **280-470** 200 strips light grey **280-471** 200 strips dark grey **280-472** 200 strips
Adjacent jumper, insulated, I_N 24 A	grey **280-402** 200 (8 x 25) yell.-green **280-422** 200 (8 x 25)	**Adjacent jumper,** insulated, I_N 24 A	grey **280-402** 200 (8 x 25) yell.-green **280-422** 200 (8 x 25)	**Adjacent jumper,** insulated, I_N 24 A	grey **280-402** 200 (8 x 25) yell.-green **280-422** 200 (8 x 25)
Staggered jumper ❹, insulated, I_N 24 A	width 5 mm / 0.197 in from 1 to 2 **780-452** 100 (4 x 25) from 1 to 3 **780-453** 100 (4 x 25) from 1 to 4 **780-454** 100 (4 x 25) from 1 to 5 **780-455** 50 (2 x 25) : : from 1 to 8 **780-458** 50 (2 x 25)	**Staggered jumper ❹,** insulated, I_N 24 A	width 5 mm / 0.197 in from 1 to 2 **780-452** 100 (4 x 25) from 1 to 3 **780-453** 100 (4 x 25) from 1 to 4 **780-454** 100 (4 x 25) from 1 to 5 **780-455** 50 (2 x 25) : : from 1 to 8 **780-458** 50 (2 x 25)	**Staggered jumper ❹,** insulated, I_N 24 A	width 5 mm / 0.197 in from 1 to 2 **780-452** 100 (4 x 25) from 1 to 3 **780-453** 100 (4 x 25) from 1 to 4 **780-454** 100 (4 x 25) from 1 to 5 **780-455** 50 (2 x 25) : : from 1 to 8 **780-458** 50 (2 x 25)
Push-in type wire jumper ❹, insulated, I_N 9 A	L = 60 mm **249-125** 10 L = 110 mm **249-126** 10 L = 250 mm **249-127** 10	**Push-in type wire jumper ❹,** insulated, I_N 9 A	L = 60 mm **249-125** 10 L = 110 mm **249-126** 10 L = 250 mm **249-127** 10	**Push-in type wire jumper ❹,** insulated, I_N 9 A	L = 60 mm **249-125** 10 L = 110 mm **249-126** 10 L = 250 mm **249-127** 10
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see page 2.13)		**Protective warning marker, comp type jumper bar, test plug adapter, etc.** (see page 2.13)		**Protective warning marker, comp type jumper bar, test plug adapter, etc.** (see page 2.13)	

* For further approvals with corresponding ratings see section 15.

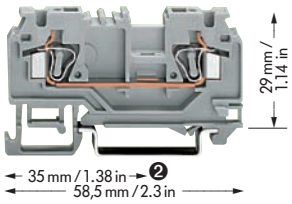
** Max. diameter of insulation: 4.4 mm / 0.173 in

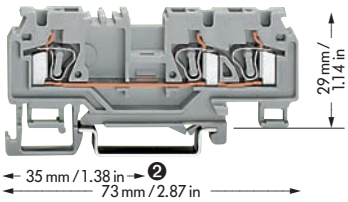
Through and Ground (Earth) Conductor Terminal Blocks f. Special Cables, Terminal Block Width 5 mm / 0.197 in, 4 mm² / AWG 12
Series 880

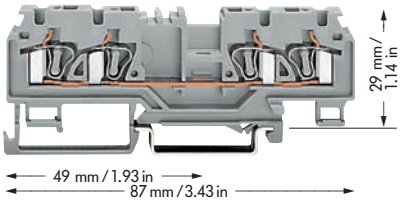
(AWG 12 with ferrule item no. 216-206)



0.08 – 4 mm² / AWG 28 – 12	0.08 – 4 mm² / AWG 28 – 12	0.08 – 4 mm² / AWG 28 – 12
800 V/8 kV/3 ❶	800 V/8 kV/3 ❶	800 V/8 kV/3 ❶
25 A	25 A	20 A
cULus ❶	cULus ❶	cULus ❶
Terminal block width 5 mm / 0.197 in	Terminal block width 5 mm / 0.197 in	Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in	8 – 9 mm / 0.33 in	8 – 9 mm / 0.33 in
* cULus	* cULus	* cULus







Item No.	Pack. unit pcs
Through terminal block without/with shield (screen) contact and test slot for test plug Ø 2 mm / 0.079 in and Ø 2.3 mm / 0.091 in, for DIN 35 rail	
2-conductor through terminal blocks without shield (screen) contact	
grey **880-901/999-940**	100
blue **880-904/999-940** ❸	100
orange **880-902/999-940**	100
2-conductor through terminal blocks with shield (screen) contact – please contact factory	
2-conductor ground (earth) terminal block	
green-yellow **880-907/999-940**	100

Item No.	Pack. unit pcs
Through terminal block without/with shield (screen) contact and test slot for test plug Ø 2 mm / 0.079 in and Ø 2.3 mm / 0.091 in, for DIN 35 rail	
3-conductor through terminal blocks without shield (screen) contact	
grey **880-681/999-940**	100
blue **880-684/999-940** ❸	100
orange **880-682/999-940**	100
3-conductor through terminal blocks with shield (screen) contact – please contact factory	
3-conductor ground (earth) terminal block	
green-yellow **880-687/999-940**	100

Item No.	Pack. unit pcs
Through terminal block without/with shield (screen) contact and test slot for test plug Ø 2 mm / 0.079 in and Ø 2.3 mm / 0.091 in, for DIN 35 rail	
4-conductor through terminal blocks without shield (screen) contact	
grey **880-831/999-940**	100
blue **880-834/999-940** ❸	100
orange **880-832/999-940**	100
4-conductor ground (earth) terminal block	
green-yellow **880-837/999-940**	100

Accessories (see left page, except insulation stop)

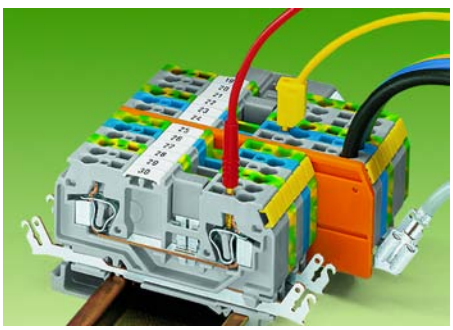
Insulation stop, 5 pcs/strip

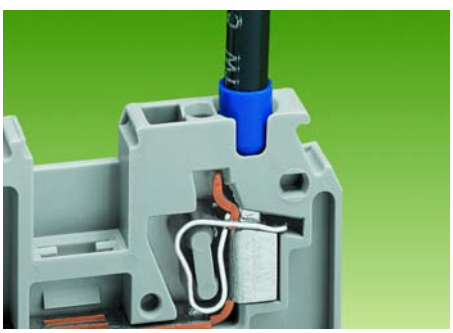


white	0.08 – 0.2 mm² ❺ / AWG 28 – 24	**769-470**	200 strips	❺ 0.2 mm² /AWG 24 "s" (0.14 mm² /AWG 26 "f-str")
light grey	0.25 – 0.5 mm² / AWG 22 – 20	**769-471**	200 strips	
dark grey	0.75 – 1 mm² / AWG 18	**769-472**	200 strips	

Features

- 2-, 3- or 4-conductor terminal blocks, 5 mm / 0.197 in wide
- Cross section of the conductor up to 4 mm²/AWG 12 (acc. to VDE 0281) or 2.5 mm²/AWG 14 with rubber-insulated conductors having a diameter up to 4.4 mm / 0.173 in
- Shield (screen) connection, solder contact / quick-connect contact 6.3 (2 x 2.8) mm
- Test plug, red, 2 mm / 0.079 in Ø
- Test plug, yellow, 2.3 mm / 0.091 in Ø
- Marking with WMB / WSB system
- Marking with miniature WSB system on both sides
- Commoning with standard WAGO jumper system





Using a cable AWG 12 with ferrule Item No. 216-206 ▶

❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
cULus 600 V/20 A
with shield (screen) contact 400 V/6 kV/3
cULus 300 V/10 A
(see also section 15)

❷ Dimensions with shield (screen) contact
2-conductor terminal blocks
45 mm / 1.77 in
79 mm / 3.11 in
3-conductor terminal blocks
45 mm / 1.77 in
92.5 mm / 3.64 in

❸ Suitable for Ex i applications

❹ See application notes on pages 2.38 – 2.45

Through/Ground (Earth) Conductor/Shield (Screen) and Ⓔx Terminal Blocks 4 mm² / AWG 12, Series 281

0.08 – 4 mm²	AWG 28 – 12
800 V/8 kV/3 ❶	600 V, 20 A
32 A	600 V, 15 A

Terminal block width 6 mm / 0.236 in
9 – 10 mm / 0.37 in

* GL BV LR NV

0.08 – 4 mm²	AWG 28 – 12
800 V/8 kV/3 ❶	600 V, 20 A
32 A	600 V, 15 A

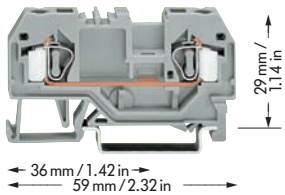
Terminal block width 6 mm / 0.236 in
9 – 10 mm / 0.37 in

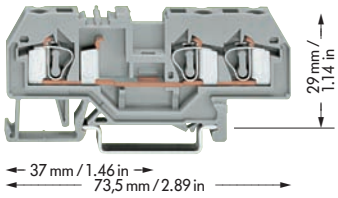
* GL BV LR NV

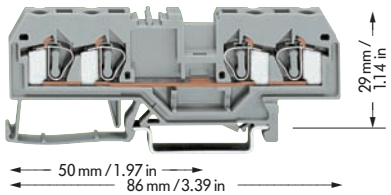
0.08 – 4 mm²	AWG 28 – 12
800 V/8 kV/3 ❶	600 V, 20 A
26 A	600 V, 15 A

Terminal block width 6 mm / 0.236 in
9 – 10 mm / 0.37 in

* GL BV LR NV







	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**281-901**	50
blue	**281-904**	50
orange	**281-902**	50
red	**281-903**	50
black	**281-905**	50
yellow	**281-906**	50
light grey Ⓔx	**281-992**	50
2-conductor ground (earth) terminal blocks		
green-yellow	**281-907**	50
green-yellow Ⓔx	**281-907/999-950**	50
Other terminal blocks with the same shape		
disconnect	**281-912**	page 7.12
carrier term. block	**281-916**	page 7.34
diode	**281-915/...-...**	page 7.58

	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**281-681**	50
blue	**281-684**	50
orange	**281-678**	50
red	**281-679**	50
black	**281-685**	50
yellow	**281-686**	50
light grey Ⓔx	**281-993**	50
3-conductor ground (earth) terminal blocks		
green-yellow	**281-687**	50
green-yellow Ⓔx	**281-687/999-950**	50
Other terminal blocks with the same shape		
disconnect	**281-683**	page 7.12
carrier term. block	**281-610**	page 7.34
diode	**281-673/...-...**	page 7.58

	Item No.	Pack. unit pcs
4-conductor through terminal blocks		
grey	**281-652**	50
blue	**281-654**	50
orange	**281-653**	50
red	**281-663**	50
black	**281-664**	50
yellow	**281-668**	50
light grey Ⓔx	**281-994**	50
4-conductor ground (earth) terminal blocks		
green-yellow	**281-657**	50
green-yellow Ⓔx	**281-657/999-950**	50
4-conductor shield (screen) terminal block		
white	**281-658**	50
Other terminal blocks with the same shape		
disconnect	**281-659**	page 7.12
disc., test a. meas.	**281-666**	page 7.10
carrier term. block	**281-656**	page 7.34
diode	**281-665/...-...**	page 7.58

Accessories Series 281

Appropriate marking system **WMB/WSB/WFB** (see section 14)

End and intermediate plate, 2.5 mm/0.098 in thick			
	orange	**281-329**	100 (4 x 25)
	grey	**281-328**	100 (4 x 25)
	light grey	**281-349**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick			
	orange	**281-331**	100 (4 x 25)
	grey	**281-330**	100 (4 x 25)
	light grey	**281-350**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip			
	white	**281-470**	200 strips
	light grey	**281-471**	200 strips
	dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A, Ⓔx 26 A			
	grey	**281-402**	200 (8 x 25)
	yell.-green	**281-422**	200 (8 x 25)
Staggered jumper ❸, insulated, I_N 32 A, Ⓔx 26 A			
	width 6 mm/0.236 in		
	from 1 to 2	**781-452**	100 (4 x 25)
	from 1 to 3	**781-453**	100 (4 x 25)
	from 1 to 4	**781-454**	100 (4 x 25)
	from 1 to 5	**781-455**	50 (2 x 25)
	from 1 to 6	**781-456**	50 (2 x 25)
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)			

End and intermediate plate, 2.5 mm/0.098 in thick			
	orange	**281-326**	100 (4 x 25)
	grey	**281-324**	100 (4 x 25)
	light grey	**281-355**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick			
	orange	**281-346**	100 (4 x 25)
	grey	**281-344**	100 (4 x 25)
	light grey	**281-356**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip			
	white	**281-470**	200 strips
	light grey	**281-471**	200 strips
	dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A, Ⓔx 26 A			
	grey	**281-402**	200 (8 x 25)
	yell.-green	**281-422**	200 (8 x 25)
Staggered jumper ❸, insulated, I_N 32 A, Ⓔx 26 A			
	width 6 mm/0.236 in		
	from 1 to 2	**781-452**	100 (4 x 25)
	from 1 to 3	**781-453**	100 (4 x 25)
	from 1 to 4	**781-454**	100 (4 x 25)
	from 1 to 5	**781-455**	50 (2 x 25)
	from 1 to 6	**781-456**	50 (2 x 25)
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)			

End and intermediate plate, 2.5 mm/0.098 in thick			
	orange	**281-335**	100 (4 x 25)
	grey	**281-334**	100 (4 x 25)
	light grey	**281-345**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick			
	orange	**281-339**	100 (4 x 25)
	grey	**281-338**	100 (4 x 25)
	light grey	**281-347**	100 (4 x 25)
Insulation stop ❸, 5 pcs / strip			
	white	**281-470**	200 strips
	light grey	**281-471**	200 strips
	dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A, Ⓔx 26 A			
	grey	**281-402**	200 (8 x 25)
	yell.-green	**281-422**	200 (8 x 25)
Staggered jumper ❸, insulated, I_N 32 A, Ⓔx 26 A			
	width 6 mm/0.236 in		
	from 1 to 2	**781-452**	100 (4 x 25)
	from 1 to 3	**781-453**	100 (4 x 25)
	from 1 to 4	**781-454**	100 (4 x 25)
	from 1 to 5	**781-455**	50 (2 x 25)
	from 1 to 6	**781-456**	50 (2 x 25)
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see right page)			

* For further approvals with corresponding ratings see section 15.

0.08 – 4 mm²
800 V/8 kV/3 ❶
32 A

AWG 28 – 12
600 V, 20 A
600 V, 15 A

Terminal block width 6 mm / 0.236 in
9 – 10 mm / 0.37 in

* SABS GL BV LR NV

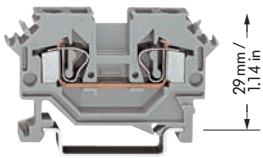
0.08 – 4 mm²
800 V/8 kV/3 ❶
32 A

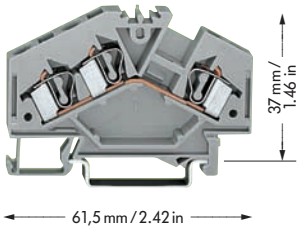
AWG 28 – 12
600 V, 20 A
600 V, 15 A

Terminal block width 6 mm / 0.236 in
9 – 10 mm / 0.37 in

* GL BV LR NV

Accessories Series 281





	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**281-601**	50
blue	**281-604** ②	50
light grey Ⓔx	**281-691**	50
2-conductor ground (earth) terminal blocks		
green-yellow	**281-607**	50
green-yellow Ⓔx	**281-607/999-950**	50
Other terminal blocks with the same shape		
diode	**281-603/...-...**	page 7.58

	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**281-631**	100
blue	**281-651** ②	100
light grey Ⓔx	**281-998**	100
3-conductor ground (earth) terminal blocks		
green-yellow	**281-637**	100
green-yellow Ⓔx	**281-637/999-950**	100

❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)
② Suitable for Ex i applications
Ⓔx Suitable for Ex e II applications
0.2 – 4 mm² AWG 24 – 12
550 V, 30 A
(see also section 13)
When using staggered jumpers the max. rated voltage will be reduced to 275 V.
Ex e/Ex i separator see page 2.13
❸ See application notes on pages 2.38 – 2.45

Appropriate marking system **WMB/WSB/WFB** (see section 14)

	Item No.	Pack. unit pcs
End and intermediate plate, 3 mm/0.118 in thick		
orange	**281-317**	100 (4 x 25)
grey	**281-316**	100 (4 x 25)
light grey	**281-353**	100 (4 x 25)
Separator, oversized, 2 mm/0.079 in thick		
orange	**281-327**	100 (4 x 25)
grey	**281-337**	100 (4 x 25)
light grey	**281-354**	100 (4 x 25)
Insulation stop ❸, 5 pcs/strip		
white	**281-470**	200 strips
light grey	**281-471**	200 strips
dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A, Ⓔx 26 A		
grey	**281-402**	200 (8 x 25)
yell.-green	**281-422**	200 (8 x 25)
Staggered jumper ❸, insulated, I_N 32 A, Ⓔx 26 A		
width 6 mm/0.236 in		
from 1 to 2	**781-452**	100 (4 x 25)
from 1 to 3	**781-453**	100 (4 x 25)
from 1 to 4	**781-454**	100 (4 x 25)
from 1 to 5	**781-455**	50 (2 x 25)
from 1 to 6	**781-456**	50 (2 x 25)
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see righthand side of the page)		

	Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**281-313**	100 (4 x 25)
grey	**281-312**	100 (4 x 25)
light grey	**281-357**	100 (4 x 25)
Separator, oversized, 2 mm/0.079 in thick		
orange	**281-318**	100 (4 x 25)
grey	**281-348**	100 (4 x 25)
light grey	**281-358**	100 (4 x 25)
Insulation stop ❸, 5 pcs/strip		
white	**281-470**	200 strips
light grey	**281-471**	200 strips
dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A, Ⓔx 26 A		
grey	**281-402**	200 (8 x 25)
yell.-green	**281-422**	200 (8 x 25)
Staggered jumper ❸, insulated, I_N 32 A, Ⓔx 26 A		
width 6 mm/0.236 in		
from 1 to 2	**781-452**	100 (4 x 25)
from 1 to 3	**781-453**	100 (4 x 25)
from 1 to 4	**781-454**	100 (4 x 25)
from 1 to 5	**781-455**	50 (2 x 25)
from 1 to 6	**781-456**	50 (2 x 25)
Protective warning marker, comp type jumper bar, test plug adapter, etc. (see righthand side of the page)		

	Item No.	Pack. unit pcs
Insulation stop ❸, 5 pcs/strip		
white	**281-470**	200 strips
light grey	**281-471**	200 strips
dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A, Ⓔx 26 A		
grey	**281-402**	200 (8 x 25)
yell.-green	**281-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 32 A, Ⓔx 26 A		
grey	**281-409**	100 (4 x 25)
Staggered jumper ❸, insulated, I_N 32 A, Ⓔx 26 A		
width 6 mm/0.236 in		
from 1 to 2	**781-452**	100 (4 x 25)
from 1 to 3	**781-453**	100 (4 x 25)
from 1 to 4	**781-454**	100 (4 x 25)
from 1 to 5	**781-455**	50 (2 x 25)
from 1 to 6	**781-456**	50 (2 x 25)
Push-in type wire jumper ❸, insulated, I_N 9 A		
L = 60 mm	**249-125**	10
L = 110 mm	**249-126**	10
L = 250 mm	**249-127**	10
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot		
yellow	**281-415**	100 (4 x 25)
Comb type jumper bar ❸, insulated, $I_N = I_N$ of terminal block		
2-way	**281-482**	100 (4 x 25)
3-way	**281-483**	100 (4 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**281-492**	100 (4 x 25)
Operating tool, insulated		
2-way	**280-432**	1
3-way	**280-433**	1
Test plug module ❸, testing using jumper contact slots or conductor entry holes		
Test plug, with cable 500 mm/1'7.7"		
2 mm Ø, red	**210-136**	50 (5 x 10)
2.3 mm Ø, yel.	**210-137**	50 (5 x 10)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 4 mm², 5 mm/0.197 in wide		
	280-404	100 (4 x 25)
for test plug 210-137 (2.3 mm Ø)		
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm/0.315 in wide		
	209-170	50 (2 x 25)
for test plug 4 mm/0.157 in Ø		
Test plug, 6 mm/0.236 in wide, with CAGE CLAMP® for 0.08 mm² – 2.5 mm²/AWG 28 – 14		
I_N 24 A	**281-407**	100 (4 x 25)
Banana plugs, 4 mm/0.157 in Ø, color mixed		
see page 2.42		

Through/Ground (Earth) Conductor and Ex Terminal Blocks 6 mm² / AWG 10, Series 282

0.2 – 6 mm²	AWG 24 – 10
800 V/8 kV/3 ❶	600 V, 30 A
41 A	600 V, 40 A

Terminal block width 8 mm / 0.315 in
12 – 13 mm / 0.49 in

* GL BV LR NV

0.2 – 6 mm²	AWG 24 – 10
800 V/8 kV/3 ❶	600 V, 30 A
41 A	600 V, 40 A

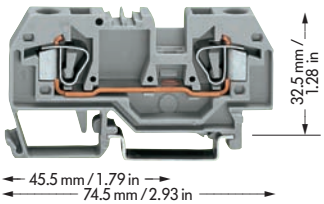
Terminal block width 8 mm / 0.315 in
12 – 13 mm / 0.49 in

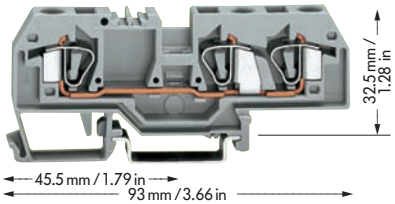
* GL BV LR NV

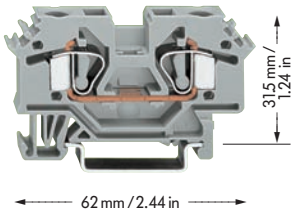
0.2 – 6 mm²	AWG 24 – 10
800 V/8 kV/3 ❶	600 V, 30 A
41 A	600 V, 40 A

Terminal block width 8 mm / 0.315 in
12 – 13 mm / 0.49 in

* SABS GL BV LR NV







	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**282-901**	50
blue	**282-904** ❷	50
orange	**282-902**	50
light grey Ex	**282-992**	50
2-conductor ground (earth) terminal blocks		
green-yellow	**282-907**	50
green-yellow Ex	**282-907/999-950**	50

	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**282-681**	25
blue	**282-684** ❷	25
orange	**282-682**	25
light grey Ex	**282-993**	25
3-conductor ground (earth) terminal blocks		
green-yellow	**282-687**	25
green-yellow Ex	**282-687/999-950**	25

	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**282-601**	50
blue	**282-604** ❷	50
light grey Ex	**282-691**	50
2-conductor ground (earth) terminal blocks		
green-yellow	**282-607**	50
green-yellow Ex	**282-607/999-950**	50

❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

❷ Suitable for Ex i applications

Ex Suitable for Ex e II applications
0.5 – 6 mm² AWG 20 – 10
550 V, 39 A jumper 35 A
(see also section 13)
Ex e/Ex i separator see page 2.13

Accessories Series 282

Appropriate marking system **WMB/WSB/WFB** (see section 14)

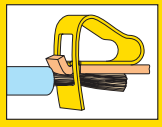
		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick	orange	**282-328**	100 (4 x 25)
	grey	**282-325**	100 (4 x 25)
	light grey	**282-330**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick	orange	**282-329**	100 (4 x 25)
	grey	**282-326**	100 (4 x 25)
	light grey	**282-331**	100 (4 x 25)
Adjacent jumper, insulated, I_N 41 A, Ex 35 A	grey	**282-402**	100 (4 x 25)
	yell.-green	**282-422**	100 (4 x 25)
Alternate jumper, insulated, I_N 41 A, Ex 35 A	grey	**282-409**	100 (4 x 25)
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**282-415**	100 (4 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm / 0.315 in wide		**209-170**	50 (2 x 25)
for test plug 4 mm / 0.157 in Ø			
Test plug module and spacer, suitable for term. blocks 0.2 mm² – 6 mm²/AWG 24-10, 8 mm / 0.315 in wide		see page 2.41	
Step down jumper and cover plate		**see pages 2.26 – 2.27**	

		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick	orange	**282-339**	100 (4 x 25)
	grey	**282-308**	100 (4 x 25)
	light grey	**282-341**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick	orange	**282-340**	100 (4 x 25)
	grey	**282-309**	100 (4 x 25)
	light grey	**282-342**	100 (4 x 25)
Adjacent jumper, insulated, I_N 41 A, Ex 35 A	grey	**282-402**	100 (4 x 25)
	yell.-green	**282-422**	100 (4 x 25)
Alternate jumper, insulated, I_N 41 A, Ex 35 A	grey	**282-409**	100 (4 x 25)
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**282-415**	100 (4 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm / 0.315 in wide		**209-170**	50 (2 x 25)
for test plug 4 mm / 0.157 in Ø			
Test plug module and spacer, suitable for term. blocks 0.2 mm² – 6 mm²/AWG 24-10, 8 mm / 0.315 in wide		see page 2.41	
Step down jumper and cover plate		**see pages 2.26 – 2.27**	

		Item No.	Pack. unit pcs
End and intermediate plate, 4 mm/0.157 in thick	orange	**282-317**	100 (4 x 25)
	grey	**282-316**	100 (4 x 25)
	light grey	**282-318**	100 (4 x 25)
Separator, oversized, 2 mm / 0.079 in thick	orange	**282-327**	100 (4 x 25)
	grey	**282-337**	100 (4 x 25)
	light grey	**282-338**	100 (4 x 25)
Adjacent jumper, insulated, I_N 41 A, Ex 35 A	grey	**282-402**	100 (4 x 25)
	yell.-green	**282-422**	100 (4 x 25)
Alternate jumper, insulated, I_N 41 A, Ex 35 A	grey	**282-409**	100 (4 x 25)
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**282-415**	100 (4 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm / 0.315 in wide		**209-170**	50 (2 x 25)
for test plug 4 mm / 0.157 in Ø			
Test plug module and spacer, suitable for term. blocks 0.2 mm² – 6 mm²/AWG 24-10, 8 mm / 0.315 in wide		see page 2.41	
Step down jumper and cover plate		**see pages 2.26 – 2.27**	

* For further approvals with corresponding ratings see section 15.

Through/Ground (Earth) Conductor and Ex Terminal Blocks 10 mm² / AWG 8, Series 284



0.2 – 10 mm²	AWG 24 – 8
800 V/8 kV/3 ❶	600 V, 50 A
57 A	600 V, 54 A

Terminal block width 10 mm / 0.394 in
12 – 13 mm / 0.49 in

* GL LR NV

0.2 – 10 mm²	AWG 24 – 8
800 V/8 kV/3 ❶	600 V, 50 A
57 A	600 V, 54 A

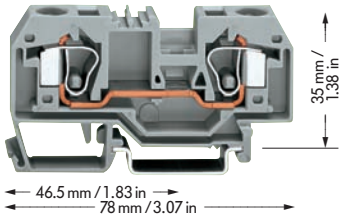
Terminal block width 10 mm / 0.394 in
12 – 13 mm / 0.49 in

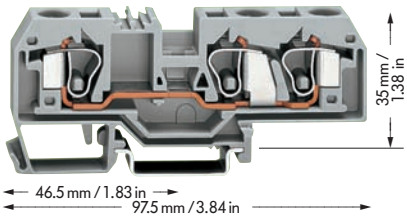
* GL LR NV

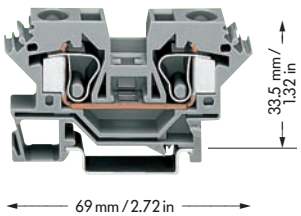
0.2 – 10 mm²	AWG 24 – 8
800 V/8 kV/3 ❶	600 V, 50 A
57 A	600 V, 65 A

Terminal block width 10 mm / 0.394 in
12 – 13 mm / 0.49 in

* GL BV LR NV







	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**284-901**	25
blue	**284-904**	25
orange	**284-902**	25
light grey Ex	**284-992**	25
2-conductor ground (earth) terminal blocks		
green-yellow	**284-907**	25
green-yellow Ex	**284-907/999-950**	25

	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**284-681**	25
blue	**284-684**	25
orange	**284-682**	25
light grey Ex	**284-993**	25
3-conductor ground (earth) terminal blocks		
green-yellow	**284-687**	25
green-yellow Ex	**284-687/999-950**	25

	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**284-601**	25
blue	**284-604**	25
light grey Ex	**284-691**	25
2-conductor ground (earth) terminal blocks		
green-yellow	**284-607**	25
green-yellow Ex	**284-607/999-950**	25

❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

Ex Suitable for Ex e II applications
0.5 – 10 mm² AWG 20 – 8
550 V, 53 A
(see also section 13)

Accessories Series 284

Appropriate marking system **WMB/WSB/WFB** (see section 14)

		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick	orange	**284-328**	100 (4 x 25)
	grey	**284-325**	100 (4 x 25)
	light grey	**284-330**	100 (4 x 25)
Separator, oversized, 2 mm/0.079 in thick	orange	**284-329**	100 (4 x 25)
	grey	**284-326**	100 (4 x 25)
	light grey	**284-331**	100 (4 x 25)
Adjacent jumper, insulated, I_N 57 A, Ex 53 A	grey	**284-402**	100 (4 x 25)
	yell.-green	**284-422**	100 (4 x 25)
Alternate jumper, insulated, I_N 57 A, Ex 53 A	grey	**284-409**	50 (2 x 25)
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**284-415**	50 (2 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm/0.315 in wide		**209-170**	50 (2 x 25)
see also page 2.41			
Finger guard cover, serves as touchproof protection for unused clamping units	yellow	**284-400**	100 (4 x 25)
Step down jumper and cover plate			
see pages 2.26 – 2.27			

		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick	orange	**284-339**	100 (4 x 25)
	grey	**284-308**	100 (4 x 25)
	light grey	**284-341**	100 (4 x 25)
Separator, oversized, 2 mm/0.079 in thick	orange	**284-340**	100 (4 x 25)
	grey	**284-309**	100 (4 x 25)
	light grey	**284-342**	100 (4 x 25)
Adjacent jumper, insulated, I_N 57 A, Ex 53 A	grey	**284-402**	100 (4 x 25)
	yell.-green	**284-422**	100 (4 x 25)
Alternate jumper, insulated, I_N 57 A, Ex 53 A	grey	**284-409**	50 (2 x 25)
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**284-415**	50 (2 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm/0.315 in wide		**209-170**	50 (2 x 25)
see also page 2.41			
Finger guard cover, serves as touchproof protection for unused clamping units	yellow	**284-400**	100 (4 x 25)
Step down jumper and cover plate			
see pages 2.26 – 2.27			

		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick	orange	**284-317**	100 (4 x 25)
	grey	**284-316**	100 (4 x 25)
	light grey	**284-318**	100 (4 x 25)
Separator, oversized, 2 mm/0.079 in thick	orange	**284-327**	100 (4 x 25)
	grey	**284-337**	100 (4 x 25)
	light grey	**284-338**	100 (4 x 25)
Adjacent jumper, insulated, I_N 57 A, Ex 53 A	grey	**284-402**	100 (4 x 25)
	yell.-green	**284-422**	100 (4 x 25)
Alternate jumper, insulated, I_N 57 A, Ex 53 A	grey	**284-409**	50 (2 x 25)
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**284-415**	50 (2 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 10 mm², 8 mm/0.315 in wide		**209-170**	50 (2 x 25)
see also page 2.41			
Finger guard cover, serves as touchproof protection for unused clamping units	yellow	**284-400**	100 (4 x 25)
Step down jumper and cover plate			
see pages 2.26 – 2.27			

* For further approvals with corresponding ratings see section 15.

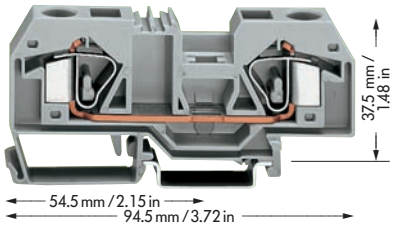
Through/Ground (Earth) Conductor and Ex Terminal Blocks 16 mm² / AWG 6, Series 283

0.2 – 16 mm²	AWG 24 – 6
800 V/8 kV/3 ❶	600 V, 65 A
76 A	600 V, 70 A

Terminal block width 12 mm / 0.472 in

16 – 17 mm / 0.65 in

* GL BV LR NV

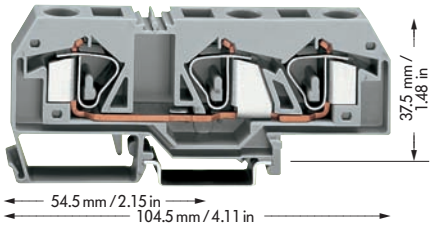


0.2 – 16 mm²	AWG 24 – 6
800 V/8 kV/3 ❶	600 V, 65 A
76 A	600 V, 70 A

Terminal block width 12 mm / 0.472 in

16 – 17 mm / 0.65 in

* GL BV LR NV

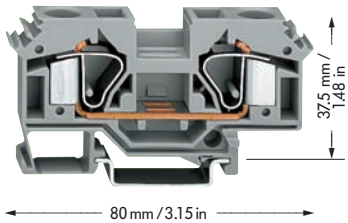


0.2 – 16 mm²	AWG 24 – 6
800 V/8 kV/3 ❶	600 V, 65 A
76 A	600 V, 70 A

Terminal block width 12 mm / 0.472 in

16 – 17 mm / 0.65 in

* SABS GL BV LR NV



	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**283-901**	20
blue	**283-904**	20
orange	**283-902**	20
light grey Ex	**283-992**	20
2-conductor ground (earth) terminal blocks		
green-yellow	**283-907**	20
green-yellow Ex	**283-907/999-950**	20

	Item No.	Pack. unit pcs
3-conductor through terminal blocks		
grey	**283-671**	20
blue	**283-674**	20
orange	**283-672**	20
light grey Ex	**283-998**	20
3-conductor ground (earth) terminal blocks		
green-yellow	**283-677**	20
green-yellow Ex	**283-677/999-950**	20
Attention! These terminal blocks cannot be commoned with adjacent jumpers!		

	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**283-601**	25
blue	**283-604**	25
light grey Ex	**283-691**	25
2-conductor ground (earth) terminal blocks		
green-yellow	**283-607**	25
green-yellow Ex	**283-607/999-950**	25

❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

Ex Suitable for Ex e II applications
0.5 – 6 mm² AWG 20 – 6
550 V, 68 A jumper 63 A
(see also section 13)

Accessories Series 283

Appropriate marking system **WMB/WSB/WFB** (see section 14)

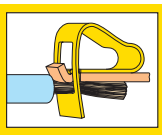
		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick	orange	**283-328**	50 (2 x 25)
	grey	**283-325**	50 (2 x 25)
	light grey	**283-330**	50 (2 x 25)
Separator, oversized, 2 mm/0.079 in thick	orange	**283-329**	50 (2 x 25)
	grey	**283-326**	50 (2 x 25)
	light grey	**283-331**	50 (2 x 25)
Adjacent jumper, insulated, I_N 70 A, Ex 63 A	grey	**283-402**	50 (2 x 25)
	yell.-green	**283-422**	50 (2 x 25)
Alternate jumper, insulated, I_N 76 A, Ex 63 A	grey	**283-409**	50 (2 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 16 mm², 11.6 mm/0.457 in wide		**283-404**	25
for test plug 4 mm/0.157 in Ø			
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**283-415**	50 (2 x 25)
Finger guard cover, serves as touchproof protection for unused clamping units	yellow	**283-400**	100 (4 x 25)
Step down jumper and cover plate	see pages 2.26 – 2.27		

		Item No.	Pack. unit pcs
End and intermediate plate, 2.5 mm/0.098 in thick	orange	**283-352**	50 (2 x 25)
	grey	**283-350**	50 (2 x 25)
	light grey	**283-354**	50 (2 x 25)
Separator, oversized, 2 mm/0.079 in thick	orange	**283-353**	50 (2 x 25)
	grey	**283-351**	50 (2 x 25)
	light grey	**283-355**	50 (2 x 25)
Attention! These terminal blocks cannot be commoned with step down jumpers!			

		Item No.	Pack. unit pcs
End and intermediate plate, 4 mm/0.157 in thick	orange	**283-317**	50 (2 x 25)
	grey	**283-316**	50 (2 x 25)
	light grey	**283-318**	50 (2 x 25)
Separator, oversized, 2 mm/0.079 in thick	orange	**283-327**	50 (2 x 25)
	grey	**283-337**	50 (2 x 25)
	light grey	**283-338**	50 (2 x 25)
Adjacent jumper, insulated, I_N 70 A, Ex 63 A	grey	**283-402**	50 (2 x 25)
	yell.-green	**283-422**	50 (2 x 25)
Alternate jumper, insulated, I_N 76 A, Ex 63 A	grey	**283-409**	50 (2 x 25)
Test plug adapter, suitable f. term. bl. 1.5 mm² – 16 mm², 11.6 mm/0.457 in wide		**283-404**	25
for test plug 4 mm/0.157 in Ø			
Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	**283-415**	50 (2 x 25)
Finger guard cover, serves as touchproof protection for unused clamping units	yellow	**283-400**	100 (4 x 25)
Step down jumper and cover plate	see pages 2.26 – 2.27		

* For further approvals with corresponding ratings see section 15.

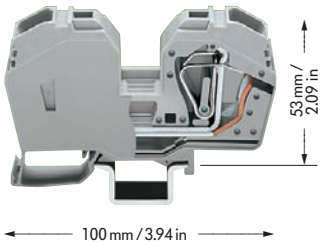
High Current Through/Ground (Earth) Conductor and Ex Terminal Blocks 35 mm² / AWG 2, Series 285

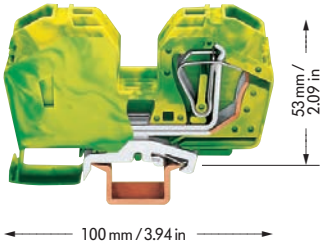


	6 – 35 mm² **1000 V/8 kV/3 ❶** **125 A** | **AWG 10 – 2** **600 V, 115 A** **600 V, 140 A** **Terminal block width 16 mm / 0.63 in** **23 mm / 0.91 in** [16 mm / 0.63 in for 35 mm² "str."] *	**For terminal blocks with larger cross sections, please see Specialty Products Catalog KSK 1.2**

❶ 1000 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

Ex Suitable for Ex e II applications
6 – 35 mm² AWG 8 – 2
750 V, 85 A
6 – 25 mm² AWG 8 – 4
for ground (earth) terminal blocks
(see also section 13)





Description		Item No.	Pack. unit pcs
Rail-mounted high current terminal blocks,	**2-conductor through terminal blocks**		
for DIN 35 rail	with integrated end plate		
	grey	**285-635**	15
	blue	**285-634**	15
	light grey Ex	**285-992**	15
	2-conductor ground (earth) terminal blocks		
	with integrated end plate		
	green-yellow	**285-637**	15
	green-yellow Ex	**285-637/999-950**	15
	not to be used on DIN 35 x 7.5 rail		



Connection of conductor 35 mm²/AWG 2

Accessories Series 285

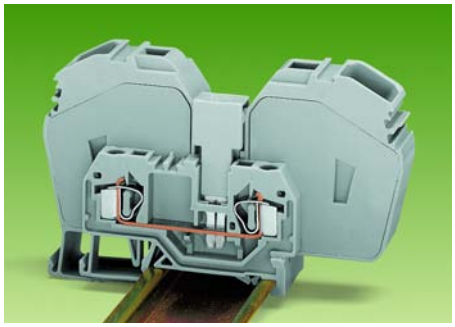
Appropriate marking system **WMB/WSB or Mini-WSB** (see section 14)

	**Adjacent jumper,** insulated	I_N 85 A, grey	**285-435** 50 (2 x 25)
	**Step-down jumper,** insulated	I_N 32 A, grey	**283-414** 50 (2 x 25)
	**Screwless end stop**	6 mm / 0.236 in w.	**249-116** 100 (4 x 25)
		10 mm / 0.394 in w.	**249-117** 50 (2 x 25)
	**Protective warning marker,** for 5 terminal blocks, fits into screwdriver slot	yellow	**285-416** 50 (2 x 25)
	**Finger guard cover,** serves as touchproof protection for unused clamping units	yellow	**285-401** 100 (4 x 25)



Protective warning markers in operating slots

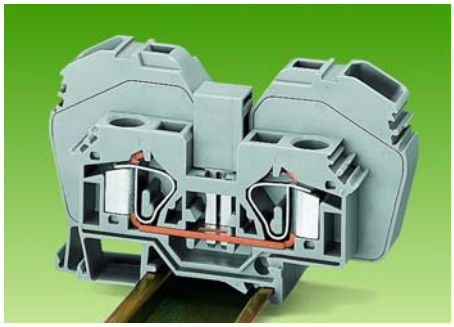
Application notes



Commoning of a series 285 terminal block (35 mm²/AWG 2) with a series 281 terminal block (4 mm²/AWG 12) using step-down jumper 283-414



Finger guard cover snapped into unused clamping unit



Terminal blocks of series 285 can be commoned with terminal blocks of series 283:
285-635 and 285-634 with
283-601 and 283-604 resp.
jumper required: 285-435.
Please note that the nominal current of the adjacent jumper should not exceed 63 A.

* For further approvals with corresponding ratings see section 15.

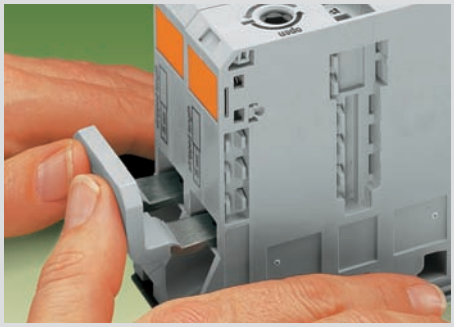
95 mm²/AWG 4/0 Rail-Mounted High Current Terminal Blocks . . . with POWER CLAMP Connection, Series 285

Wire connection



Counter-clockwise rotation using a hex wrench. Hold clamp in open position using the latch.

Commoning



Commoning with adjacent jumper. Insertion of jumper above the conductor entry hole, without tools. Rated cross section is still 95 mm²/AWG 0000.

Testing

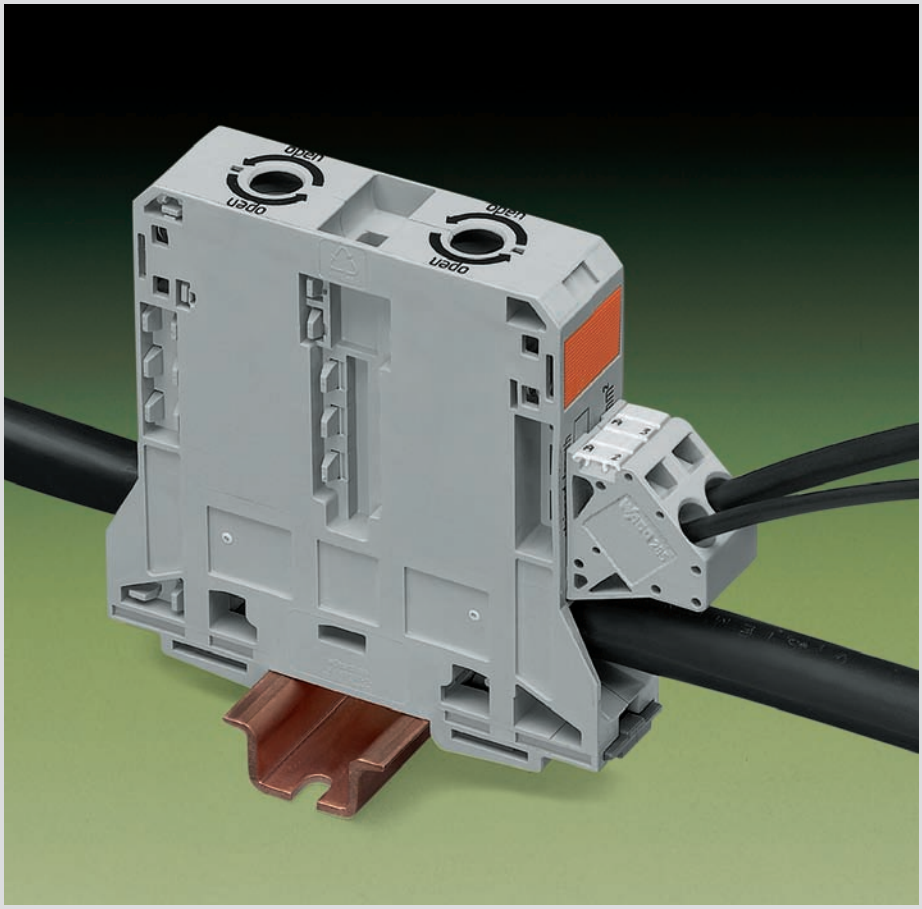


Testing with test plug 4 mm/0.157 in diameter, protected against accidental contact.

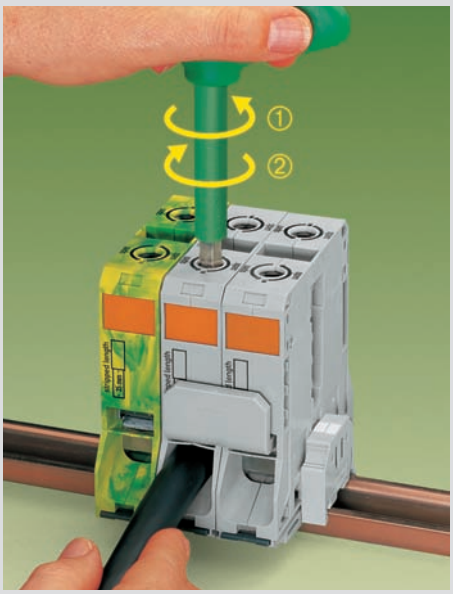
Wire connection



Introduce stripped wire into the clamping unit up to the stop and hold it in position . . .



Wire connection



. . . A small counter-clockwise rotation releases the latch ❶. Once the operating tool ❷ has been removed the conductor is safely clamped.

Assembly

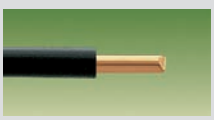


Snapping a terminal block onto the carrier rail. From the left or from the right.

Removal



Removing a terminal block from the carrier rail. To the left or to the right.



The POWER CLAMP connection clamps the following copper wires:*

solid



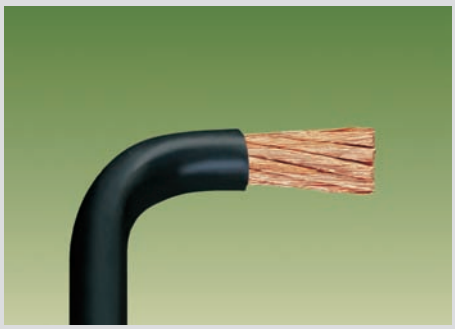
stranded



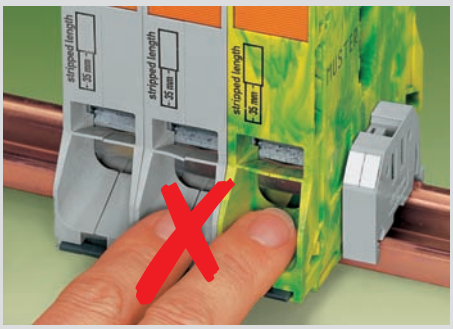
fine-stranded, also with tinned single strands

* For aluminum wire see notes in section 15!

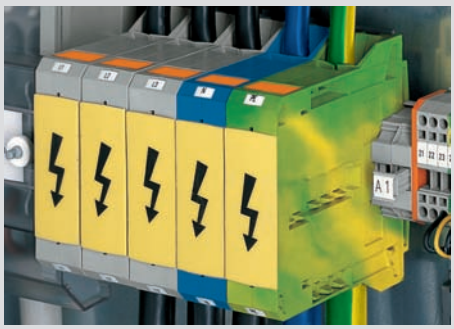
Safety notices



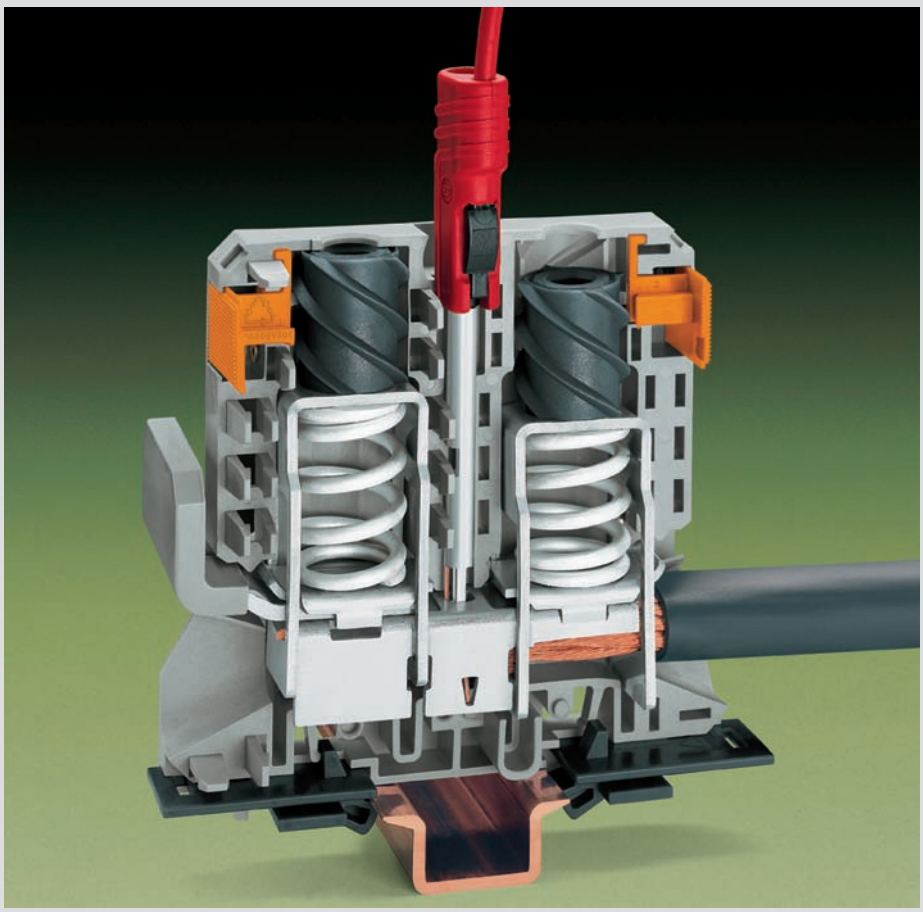
Bend the conductor before stripping!
Wire end has to be straight!
Note: Stripped length 35 mm



Attention! Health hazard!
Keep your fingers out of the conductor entry hole!



Protective warning marker may indicate:
Attention! Voltage may be present despite main circuit being switched off!

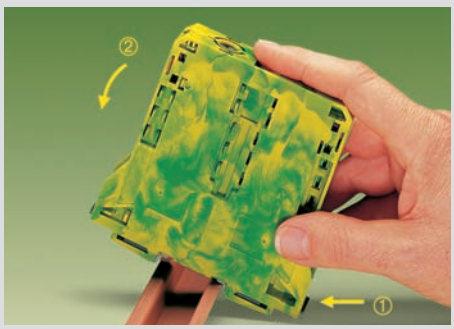


Grounding foot



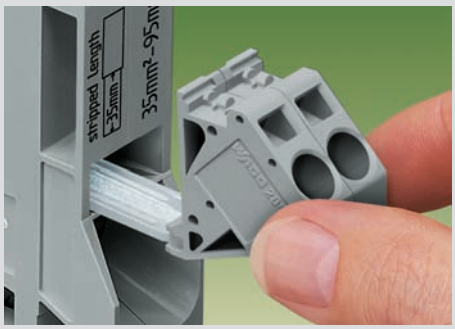
Contact pressure is distributed symmetrically on all defined contact zones.
Short circuit currents of more than 11, 400 A per second are grounded safely.

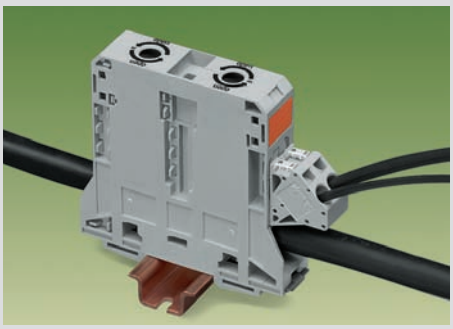
Ground (earth) conductor terminal blocks



Firmly snap ground (earth) conductor terminal block onto the carrier rail. The grounding foot makes an automatic contact to the rail.

Voltage tap



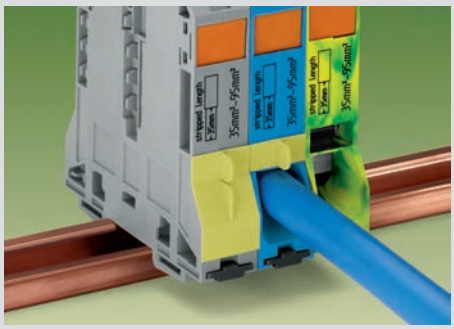


Reliable and simple tap directly onto the power supply. Insert the unwired tap before opening the pressure spring.



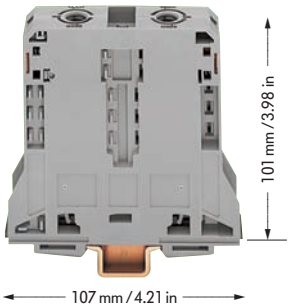
fine-stranded,
with crimped ferrule
(gas tight)

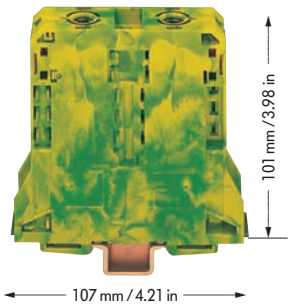
Touch protection cover

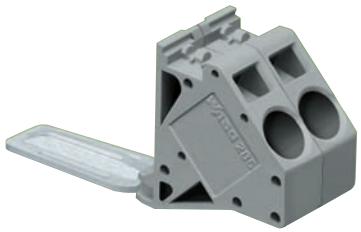


Covers provide touchproof safety by closing unused clamping units and jumper contact slots (detach the cover of the jumper contact slot from the touch protection cover of the clamping unit)

25 – 95 mm² / 1000 V/8 kV/3 ❶ / 232 A	AWG 4 – 4/0 / 600 V, 200 A / 600 V, 210 A	25 – 95 mm²	AWG 4 – 4/0	0.2 – 10/16 mm² ❷ / 1000 V/8 kV/3 / 57 A	AWG 24 - 6
Terminal block width 25 mm / 0.98 in 35 mm / 1.38 in *		Terminal block width 25 mm / 0.98 in 35 mm / 1.38 in *		Module width 20 mm / 0.787 in ❷ max. conductor cross section 16 mm²	







	Item No.	Pack. unit pcs
2-conductor through terminal blocks		
grey	**285-195**	5
blue	**285-194**	5
light grey Ex	**285-995**	5
To be used **exclusively** on DIN 35 x 15; 2.3 mm / 0.091 in thick		

	Item No.	Pack. unit pcs
2-conductor ground (earth) terminal blocks		
green-yellow	**285-197**	5
green-yellow Ex	**285-197/999-950**	5
To be used **exclusively** on DIN 35 x 15; 2.3 mm / 0.091 in thick, Cu		

	Item No.	Pack. unit pcs
Voltage tap,		
grey	**285-407**	5

Accessories

Appropriate marking system **WSB** (see section 14)

Appropriate marking system **WMB/WSB**

Adjacent jumper, insulated,



I_N 232 A for 1 jumper
I_N 192 A for 2 to 4 jumpers
grey **285-495** 25

Adjacent jumper, insulated,



I_N 232 A for 1 jumper
I_N 192 A for 2 to 4 jumpers
grey **285-495** 25

Hex wrench with partially insulated shaft



285-172 1

Hex wrench with partially insulated shaft



285-172 1

Protective warning marker,



with high voltage symbol, black
yellow **285-170** 50 (2 x 25)

Protective warning marker,



with high voltage symbol, black
yellow **285-170** 50 (2 x 25)

Touch protection cover, serves as touchproof protection for unused clamping units



yellow **285-169** 25

Touch protection cover, serves as touchproof protection for unused clamping units



yellow **285-169** 25

Test plug, Ø 4 mm / 0.157 in, protected against accidental contact, not offered by WAGO
e. g. Fa. Multi-Contact Deutschland GmbH
Postfach 16 06 · 79551 Weil am Rhein
Hegenheimerstraße 19 · 79576 Weil am Rhein



Test plug, Ø 4 mm / 0.157 in, protected against accidental contact, not offered by WAGO
e. g. Fa. Multi-Contact Deutschland GmbH
Postfach 16 06 · 79551 Weil am Rhein
Hegenheimerstraße 19 · 79576 Weil am Rhein



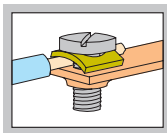
❶ 1000 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)

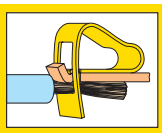
Ex Suitable for Ex e II applications
25 – 95 mm² AWG 4 – 4/0
750 V, 195 A
35 – 70 mm² AWG 2 – 00
for ground (earth) terminal blocks
(see also section 13)

* For further approvals with corresponding ratings see section 15.

Distribution Terminal Blocks, Series 284

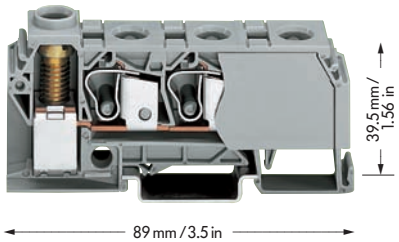
Front-entry/side-entry





	0.2 – 10 mm² ❶ 6.0 – 35 mm² ❷ 800 V/8 kV/3 ❸; 125 A	AWG 24 – 8 ❶ AWG 10 – 2 ❷ 600 V, 115 A
	Terminal block width 17.5 mm / 0.689 in 12 – 14 mm / 0.51 in	
	* CCA CB GL BV LR NV	

❶ CAGE CLAMP® connection
❷ Screw-clamp connection
❸ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(see also section 15)
❹ Individual arrangement 125 A
2 jumpers combined in one clamping unit 100 A



Description	Item No.	Pack. unit pcs
Distribution terminal block, for DIN 35 rail	**Distribution terminal blocks,**	
	with 3 x CAGE CLAMP® connection ❶ 10 mm²/AWG 8	
	and 1 x screw-clamp connection ❷ 35 mm²/AWG 2	
	grey **284-621**	15
	blue **284-624**	15

Accessories

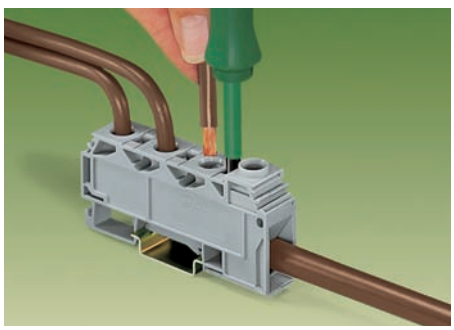
Appropriate marking system **WMB/WSB** (see section 14)

Comb type jumper bar, insulated, 2-way	I_N 125 A ❹		
	grey	**284-412**	100 (4 x 25)

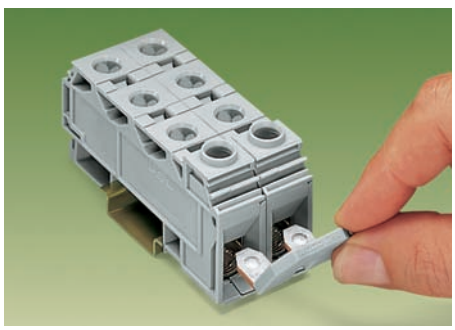
Application notes



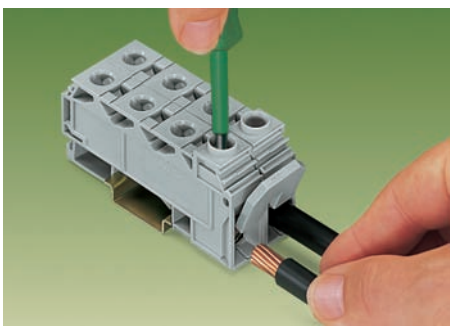
Connection of conductor 35 mm²/AWG 2
Screw-clamp connection, side-entry



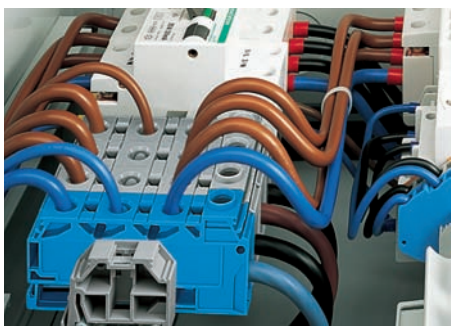
Connection of conductor 10 mm²/AWG 8
CAGE CLAMP® connection, front-entry



Commoning with comb type jumper bar



Connecting a 35 mm²/AWG 2 conductor

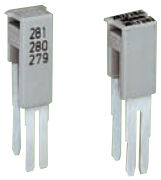


Rail-mounted distribution terminal block with 35 mm²/AWG 2 and 3 x 10 mm²/3 x AWG 8 front-entry CAGE CLAMP® connection. To snap onto DIN 35 carrier rails according to EN 60715. The terminal block is closed on both sides, an end or intermediate plate is not necessary.
In case of maximum wiring with 3 x 10 mm²/3 x AWG 8 on the distribution side the nominal current of 125 A should not be exceeded.

* For further approvals with corresponding ratings see section 15.

Step-Down Jumpers for Front-Entry Through Terminal Blocks up to 16 mm² / AWG 6*

	Step-down jumper commoning term. bl. 10/6 mm² / AWG 8/10 → 4/2.5/1.5 mm² / AWG 12/14/16 800 V/8 kV/3; 15 A or 10/6 mm² / AWG 8/10 → 6/4 mm² / AWG 10/12 800 V/8 kV/3; 30 A	Step-down jumper for commoning terminal blocks 16 mm² / AWG 6 → 4 mm² / AWG 12 800 V/8 kV/3 32 A





❶ For use with terminal blocks 279-831; 280-833; 281-652 only

❷ For use with terminal block 280-633 only

Step-down jumpers cannot be used for commoning front-entry terminal blocks with side-entry terminal blocks

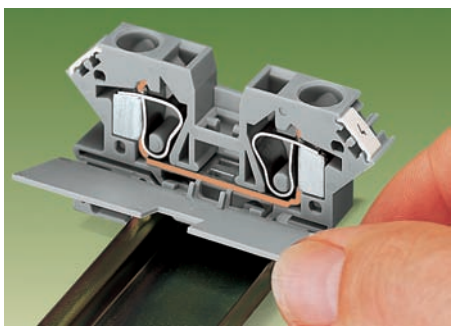
Description		Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
Step-down jumper, insulated		**10/6 mm² / AWG 8/10 →**		**16 mm² / AWG 6 → 4 mm² / AWG 12**	
		4/2.5/1.5 mm² / AWG 12/14/16		I_N 32 A, grey **283-414**	50 (2 x 25)
		I_N 15 A, grey **284-414**	50 (2 x 25)		
		10/6 mm² / AWG 8/10 → 6/4 mm² / AWG 10/12			
		I_N 30 A, grey **284-413**	50 (2 x 25)		
Accessories					
	**Cover plate,**	1 mm/0.039 in thick		1 mm/0.039 in thick, for 2-cond. terminal block 283-601	
	for 2-, 3- and	grey **284-334** **284-336** ❶ **284-335** ❷	25	grey **283-334**	25
	4-conductor terminal blocks	orange **284-344** **284-346** ❶ **284-345** ❷	25	orange **283-336**	25
	**Cover plate,**	1 mm/0.039 in thick series 282 series 284		1 mm/0.039 in thick, for 2-cond. terminal block 283-901	
	for 2-conductor terminal blocks	grey **282-357** **284-357**	25	grey **283-357**	25
	282-901 and 284-901	orange **282-367** **284-367**	25	orange **283-367**	25
	**Cover plate,**	1 mm/0.039 in thick series 282 series 284			
	for 3-conductor terminal blocks	grey **282-358** **284-358**	25		
	282-681 and 284-681	orange **282-368** **284-368**	25		

Application notes

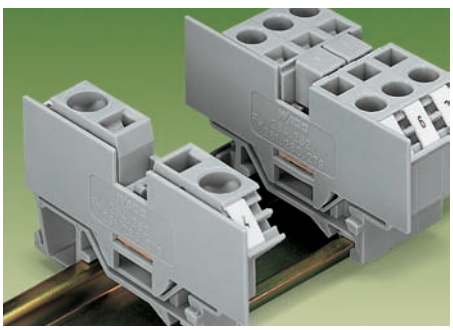
Step-down jumpers may be used for commoning terminal blocks of different sizes, without losing a conductor clamping point. This can be an advantage on long conductor runs where voltage drop can be a problem.
A large conductor can be easily connected to smaller wires at the distribution point.

Step-down jumpers are simply pushed down to full insertion, in the same way as all other push-in jumpers. Commoning may be made in either direction using the special thin end plate to cover the open side. Further terminal blocks of the smaller cross section may be commoned using standard adjacent jumpers. In this case pay attention that:

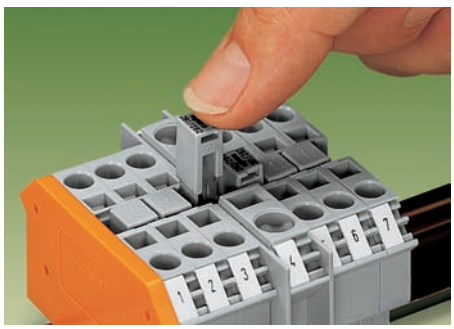
1. **the total current flowing does not exceed the rating of the step-down jumper**
2. the standard or special thin end plate is applied to the open side of the larger block.



Cover plate snapped onto open side of terminal block



Always use a cover plate also on the other side of the larger terminal block.



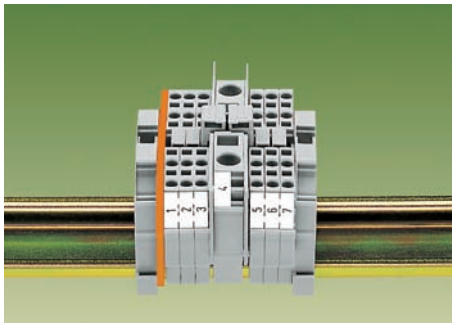
Larger "supply" blocks may be commoned to blocks for smaller wires.
Push jumper down FIRMLY until FULLY inserted!



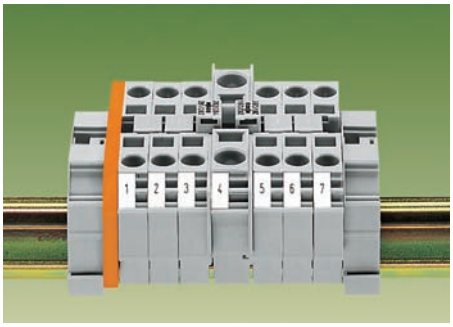
Note: jumpers are marked with suitable terminal block sizes ensuring they are correctly installed.

* Through terminal blocks 35 mm²/AWG 2 see page 2.21

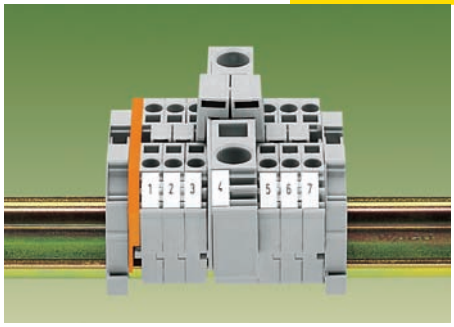
Examples of Assembly



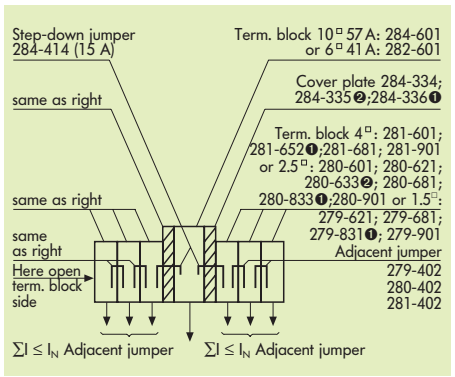
Commoning of front-entry rail-mounted terminal blocks 6 mm²/AWG 10 (series 282) with front-entry rail-mounted terminal blocks 1.5 mm²/AWG 16 (series 279).



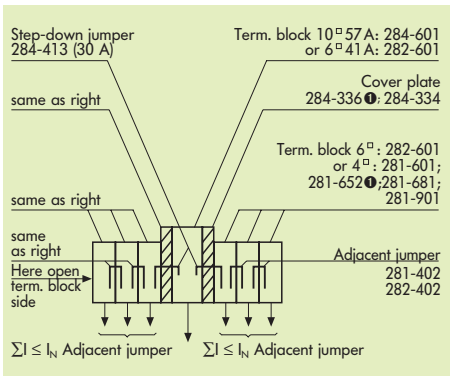
Commoning of front-entry rail-mounted terminal blocks 10 mm²/AWG 8 (series 284) with front-entry rail-mounted terminal blocks 6 mm²/AWG 10 (series 282).



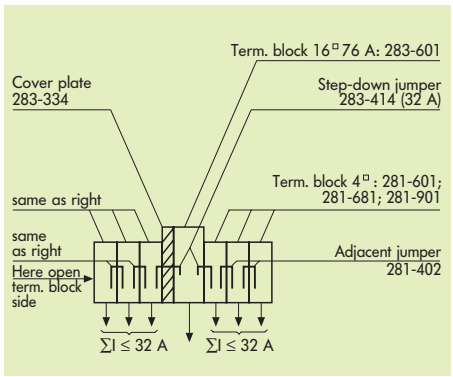
Commoning of front-entry rail-mounted terminal blocks 16 mm²/AWG 6 (series 283) with front-entry rail-mounted terminal blocks 4 mm²/AWG 12 (series 281).



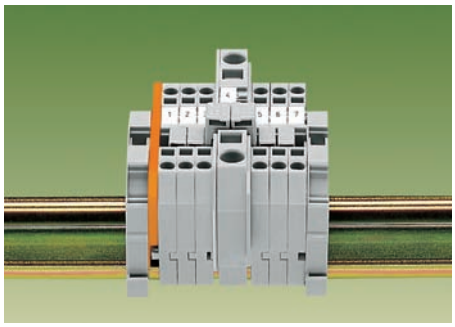
Example of assembly "Commoning of front-entry rail-mounted terminal blocks 10/6 mm²/AWG 8/10 with front-entry rail-mounted terminal blocks 4/2.5/1.5 mm²/AWG 12/14/16 with step-down jumper 284-414."



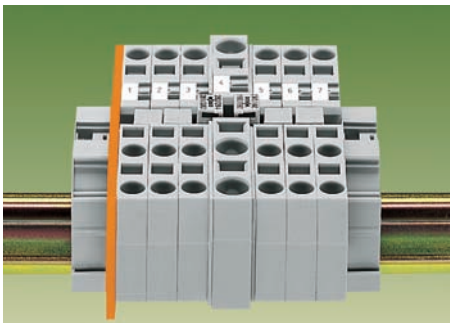
Example of assembly "Commoning of front-entry rail-mounted terminal blocks 10/6 mm²/AWG 8/10 with front-entry rail-mounted terminal blocks 6/4 mm²/AWG 10/12 with step-down jumper 284-413."



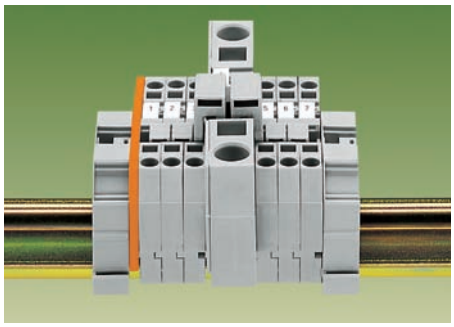
Example of assembly "Commoning of front-entry rail-mounted terminal blocks 16 mm²/AWG 6 with front-entry rail-mounted terminal blocks 4 mm²/AWG 12 with step-down jumper 283-414."



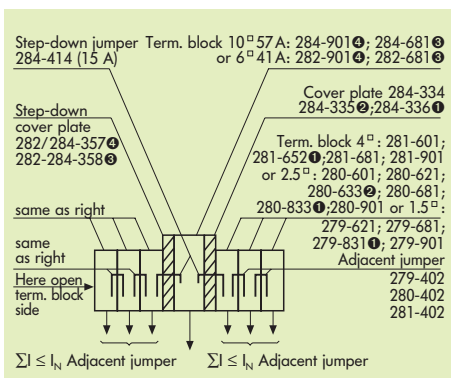
Commoning of front-entry rail-mounted terminal blocks 6 mm²/AWG 10 (series 282) with front-entry rail-mounted terminal blocks 1.5 mm²/AWG 16 (series 279).



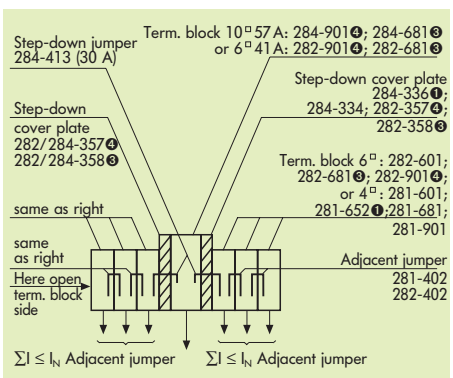
Commoning of front-entry rail-mounted terminal blocks 10 mm²/AWG 8 (series 284) with front-entry rail-mounted terminal blocks 6 mm²/AWG 10 (series 282).



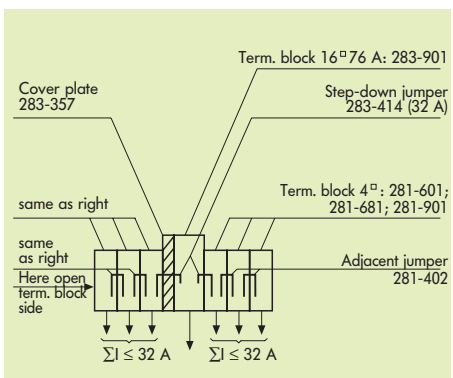
Commoning of front-entry rail-mounted terminal blocks 16 mm²/AWG 6 (series 283) with front-entry rail-mounted terminal blocks 4 mm²/AWG 12 (series 281).



Example of assembly "Commoning of front-entry rail-mounted terminal blocks 10/6 mm²/AWG 8/10 with front-entry rail-mounted terminal blocks 4/2.5/1.5 mm²/AWG 12/14/16 with step-down jumper 284-414."



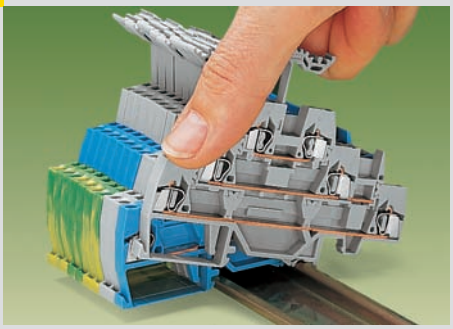
Example of assembly "Commoning of front-entry rail-mounted terminal blocks 10/6 mm²/AWG 8/10 with front-entry rail-mounted terminal blocks 6/4 mm²/AWG 10/12 with step-down jumper 284-413."



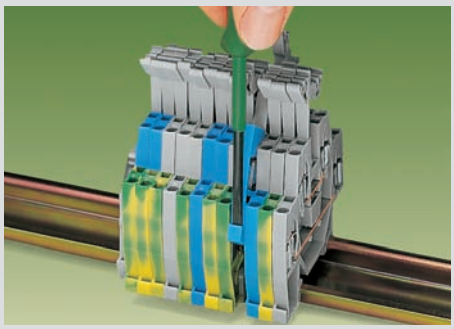
Example of assembly "Commoning of front-entry rail-mounted terminal blocks 16 mm²/AWG 6 with front-entry rail-mounted terminal blocks 4 mm²/AWG 12 with step-down jumper 283-414."

Double and Triple Deck Terminal Blocks with CAGE CLAMP® connection Description and Handling

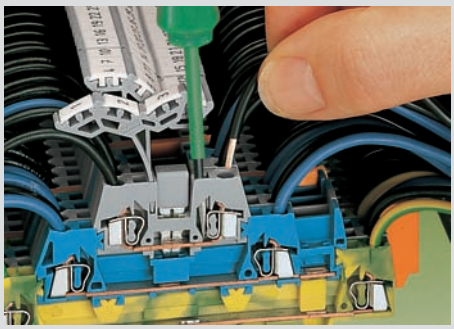
Series 279/280 and 281



Assembly of a terminal block on the rail

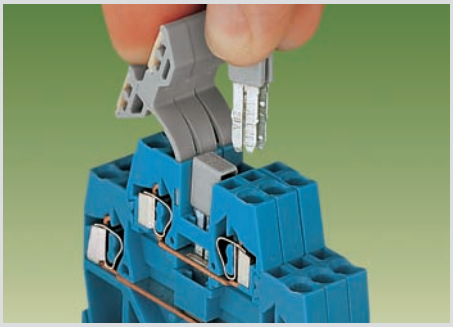


Removal of a terminal block from the assembly



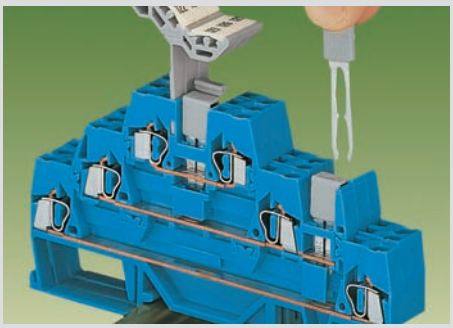
Connection of wires

Commoning

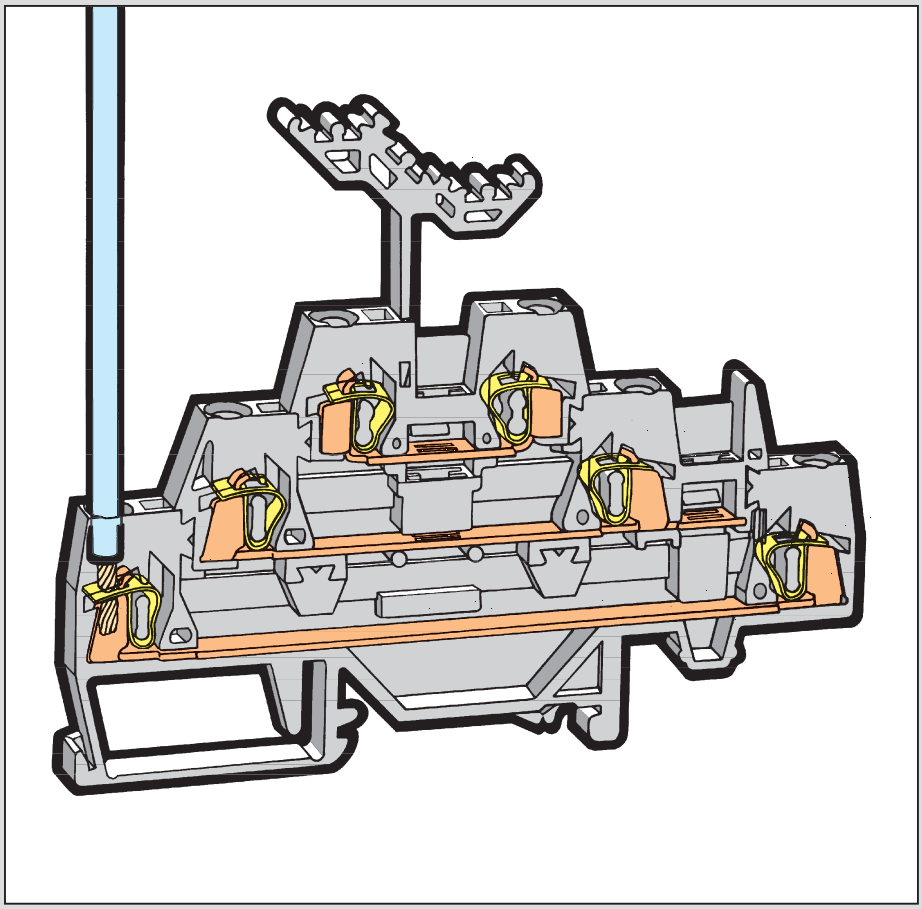


Commoning with adjacent jumpers 280-402.
Push jumper down FIRMLY until FULLY inserted!

Commoning



Combined horizontal and vertikal commoning

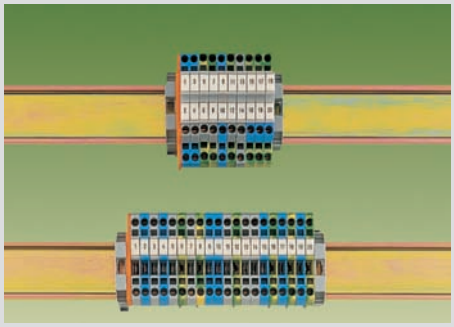


Marking

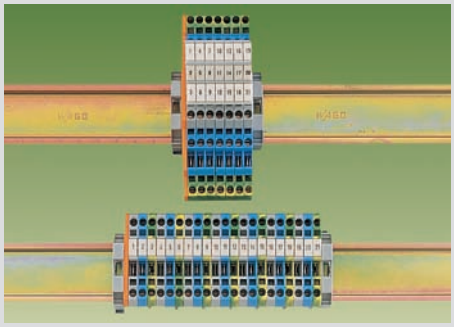


Marking with WMB multi-marking system or WSB quick marking system.
For other systems see section 14

Space saving



Space saving of 50 % when using double deck terminal blocks



Space saving of 67 % when using triple deck terminal blocks

CAGE CLAMP® clamps the following copper wires:*

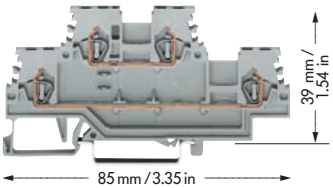
solid	fine-stranded wire – tip bonded	stranded	fine-stranded wire with crimped ferrule ❶	fine-stranded, also with tinned single strands	fine-stranded wire with crimped pin terminal

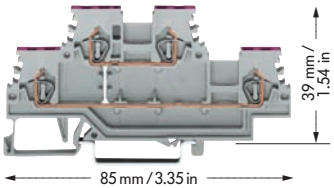
* For aluminum wire see notes in section 15!

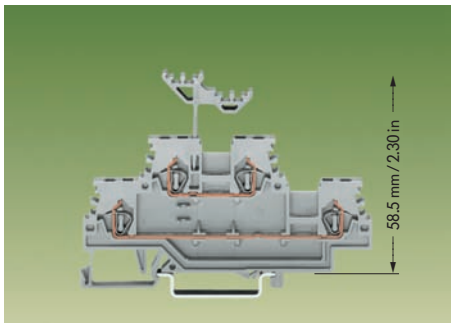
❶ When using wires with ferrules, it is necessary to use a terminal block one size larger than the nominal cross section of the wire.

Double Deck Terminal Blocks 1.5 mm² / AWG 16, Series 279

0.08 – 1.5 mm² / 500 V/6 kV/3 ❶ / 18 A	AWG 28 – 16	0.08 – 1.5 mm² / 500 V/6 kV/3 ❶ / 18 A	AWG 28 – 16	Accessories
Terminal block width 4 mm / 0.157 in 8 - 9 mm / 0.33 in		Terminal block width 4 mm / 0.157 in 8 - 9 mm / 0.33 in		



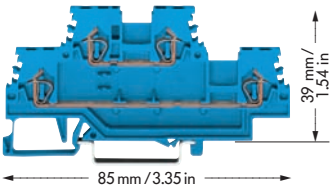


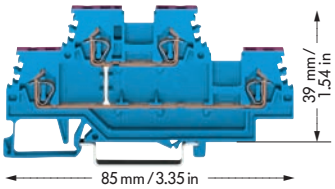


Height including WSB double marker carrier

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/through terminal blocks,		
housing color grey		
L/L	**279-501**	50
N/L	**279-512**	50
L/N	**279-513**	50

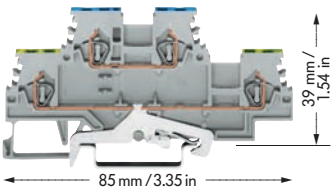
	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
4-conductor through terminal block,		
internal commoning, housing color grey,		
conductor entry position colored in violet		
L	**279-508**	50

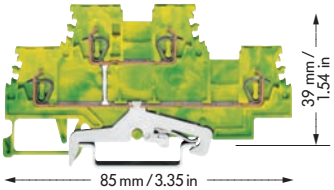




	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/through terminal block,		
housing color blue		
N/N	**279-504** ❸	50

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
4-conductor through terminal block,		
internal commoning, housing color grey,		
conductor entry position colored in violet		
N	**279-509** ❸	50





	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Ground (earth) conductor/through terminal blocks,		
housing color grey		
PE/N	**279-517**	50
PE/L	**279-527**	50

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
4-conductor ground (earth) terminal block,		
internal commoning, housing color green-yellow		
PE	**279-507**	50

	Item No.	Pack. unit pcs
End and intermediate plate, 2 mm / 0.079 in thick		
orange	**279-519**	100 (4 x 25)
grey	**279-518**	100 (4 x 25)
Insulation stop ❷, 5 pcs / strip		
white	**279-470**	200 strips
dark grey	**279-471**	200 strips
Adjacent jumper, insulated, I_N 15 A		
grey	**279-402**	200 (8 x 25)
yell.-green	**279-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 15 A		
grey	**279-409**	100 (4 x 25)
Comb type jumper bar ❷, ins., $I_N = I_N$ of terminal block		
2-way	**279-482**	200 (8 x 25)
3-way	**279-483**	200 (8 x 25)
10-way	**279-490**	50 (2 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**279-492**	200 (8 x 25)
Operating tool, insulated		
2-way	**279-432**	1
3-way	**279-433**	1
10-way	**279-440**	1
WMB multi-marking system or WSB quick marking system, 10 strips with 10 markers each		
see section 14		
WSB double marker carrier	**279-529**	50 (2 x 25)

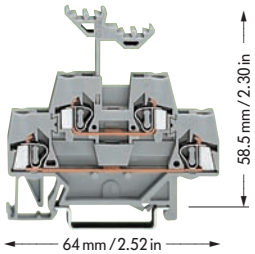
❶ 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

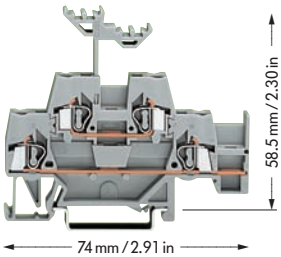
❷ See application notes on pages 2.43 – 2.44

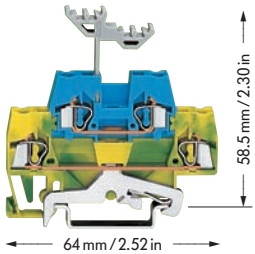
❸ Suitable for Ex i applications

Double Deck Terminal Blocks 2.5 mm² / AWG 12, Series 280

0.08 – 2.5 mm² / 500 V/6 kV/3 ❶ / 20 A	AWG 28 – 12 / 300 V, 15 A / 300/600 V, 20/5 A	0.08 – 2.5 mm² / 500 V/6 kV/3 ❶ / 20 A	AWG 28 – 12 / 300 V, 15 A / 300/600 V, 20/5 A	0.08 – 2.5 mm² / 500 V/6 kV/3 ❶ / 20 A	AWG 28 – 12 / 300 V, 15 A / 300/600 V, 20/5 A
Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in		Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in		Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in	
* GL BV LR NV		* GL BV LR NV		* GL BV LR NV	



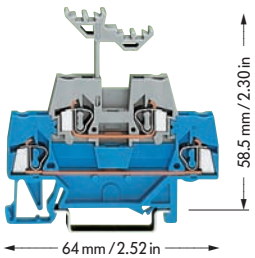


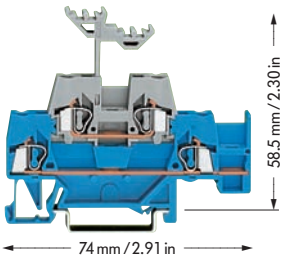


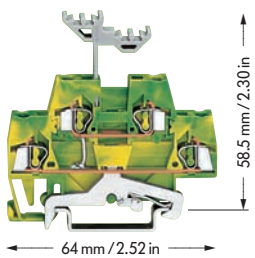
Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail	
Through/through terminal blocks	
grey **280-519**	50
blue **280-529** ❷	50
Other terminal blocks with the same shape	
diode/LED **280-9xx/...-...**	page 7.62

Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail	
Through/through terminal blocks	
horizontal jumpering on lower level	
grey **280-520**	50
blue **280-530** ❷	50

Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail	
Ground (earth) conductor/through terminal blocks	
green-yellow/grey **280-527**	50
green-yellow/blue **280-537**	50







Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail	
Through/through terminal blocks	
blue/grey (shown) **280-523**	50
grey/blue (not shown) **280-533**	50
End and intermediate plate, 2.5 mm/0.098 in thick	
orange **280-341** 100 (4 x 25)	
grey **280-340** 100 (4 x 25)	
Intermediate plate, 1.1 mm/0.043 in thick	
orange **280-366** 100 (4 x 25)	

Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail	
Through/through terminal blocks	
horizontal jumpering on lower level	
blue/grey (shown) **280-524**	50
grey/blue (not shown) **280-534**	50
End and intermediate plate, 2.5 mm/0.098 in thick	
orange **280-343** 100 (4 x 25)	
grey **280-342** 100 (4 x 25)	
Intermediate plate, 1.1 mm/0.043 in thick	
orange **280-369** 100 (4 x 25)	

Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail	
4-conductor ground (earth) terminal block, internal commoning	
green-yellow **280-517**	50
End and intermediate plate, 2.5 mm/0.098 in thick	
orange **280-341** 100 (4 x 25)	
grey **280-340** 100 (4 x 25)	
Intermediate plate, 1.1 mm/0.043 in thick	
orange **280-366** 100 (4 x 25)	

Accessories Series 280, see page 2.13 for a complete overview

Appropriate marking system: **WMB/WSB** (see section 14)

Adjacent jumper, insulated, I_N 24 A	
grey **280-402** 200 (8 x 25)	
yell.-green **280-422** 200 (8 x 25)	
Comb type jumper bar ❹, ins., $I_N = I_N$ of terminal block	
2-way **280-482** 200 (8 x 25)	
3-way **280-483** 200 (8 x 25)	
10-way **280-490** 50 (2 x 25)	

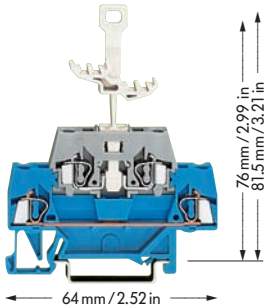
Alternate jumper, insulated, I_N 24 A	
grey **280-409** 100 (4 x 25)	
Alternate comb type jumper bar, insulated,	
$I_N = I_N$ of terminal block	
2-way **280-492** 200 (8 x 25)	

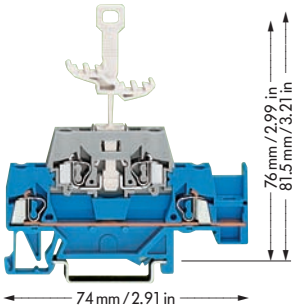
Vertical jumper, insulated, I_N 24 A	
grey **281-421** 200 (8 x 25)	
Operating tool, insulated	
2-way **280-432**	1
3-way **280-433**	1
10-way **280-440**	1

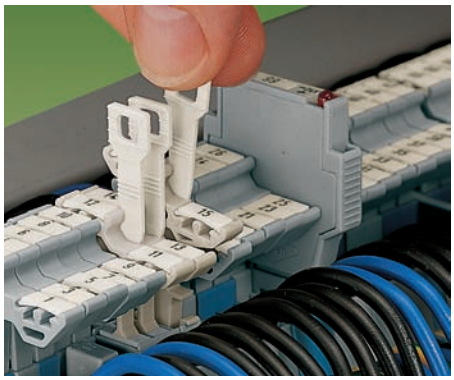
* For further approvals with corresponding ratings see section 15.

0.08 – 2.5 mm² / 400 V/6 kV/3 ❶ ❸ / 6.3 A ❸/10 A	AWG 28 – 12 / 300 V, 10 A ❸ / 300/600 V, 20/5 A
Terminal block width 5 mm / 0.197 in	
8 – 9 mm / 0.33 in	
* GL BV LR NV	

0.08 – 2.5 mm² / 400 V/6 kV/3 ❶ ❸ / 6.3 A ❸/10 A	AWG 28 – 12 / 300 V, 10 A ❸ / 300/600 V, 20/5 A
Terminal block width 5 mm / 0.197 in	
8 – 9 mm / 0.33 in	
* GL BV LR NV	



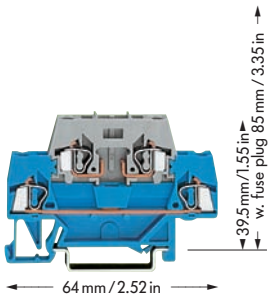


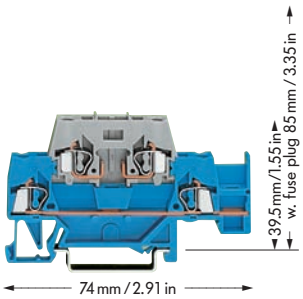

Pulling of disconnecting tab

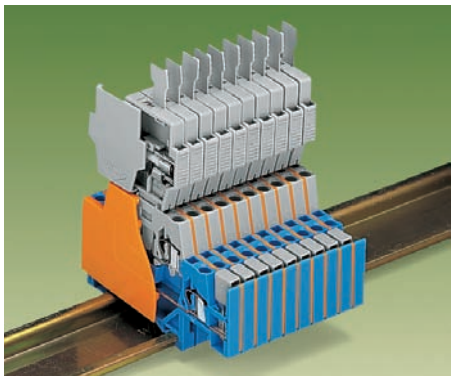
	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/disconnect terminal blocks		
grey/grey	**280-521**	50
blue/grey	**280-525**	50

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/disconnect terminal blocks horizontal jumpering on lower level		
grey/grey	**280-522**	50
blue/grey	**280-526**	50

The double deck terminal blocks enable two circuits of different potentials to be contained in one 2-level terminal block. The lower deck is wider than the upper, for ease of wiring. Different circuits can be differentiated by color coding of either level.






Double deck terminal blocks with fuse plugs

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/carrier terminal blocks for pluggable fuse modules ❸		
blue/grey (shown)	**280-531**	50
grey/grey (not shown)	**280-514**	50
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**280-341** 100 (4 x 25)	
grey	**280-340** 100 (4 x 25)	
Intermediate plate, 1.1 mm/0.043 in thick		
orange	**280-366** 100 (4 x 25)	

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/carrier terminal blocks for pluggable fuse modules ❸ horizontal jumpering on lower level		
blue/grey (shown)	**280-532**	50
grey/grey (not shown)	**280-891**	50
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**280-343** 100 (4 x 25)	
grey	**280-342** 100 (4 x 25)	
Intermediate plate, 1.1 mm/0.043 in thick		
orange	**280-369** 100 (4 x 25)	

When double deck terminal blocks are used with a fuse plug (width 6 mm/0.236 in) in the receptacle (top) level, the extra width can be compensated for the 280 series (width 5 mm/0.197 in) by use of an intermediate plate (thickness 1.1 mm/0.043 in).

This special intermediate plate still allows jumpering on the lower level when required, by use of the push-in jumpers.

Accessories Series 280, see page 2.13

Appropriate marking system **WMB/WSB** (see section 14)

Fuse plug, for miniature metric fuses
5 x 20 mm and 5 x 25 mm
6 mm/0.236 in wide with pull-tab
281-511 50

Fuse plug, same as above, but with hole for LED (for self-assembly)
6 mm/0.236 in wide with pull-tab
281-512 50

Fuse plug, same as on the left, with additional indicator lamp, LED, AC/DC 24 V, Can be used in either polarity direction
6 mm/0.236 in wide with pull-tab
281-512/281-501 50
residual current in case of blown fuse LED 5 – 20 mA

❶ 400/500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

❷ Suitable for Ex i applications

❸ Electrical ratings are given by the fuse or nominal voltage of the indicator lamp respectively
see also pages 7.38 – 7.39

❹ See application notes on pages 2.43 and 2.44

Double Deck Terminal Blocks 2.5 mm² / AWG 12, Series 280

0.08 – 2.5 mm²	AWG 28 – 12
500 V/6 kV/3 ❶	300 V, 15 A
20 A	300/600 V, 20/5 A

Terminal block width 5 mm / 0.197 in

8 – 9 mm / 0.33 in

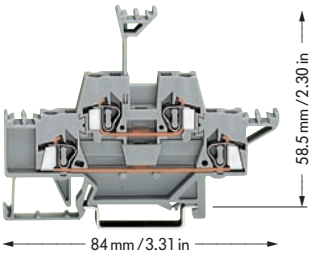
* GL BV LR NV

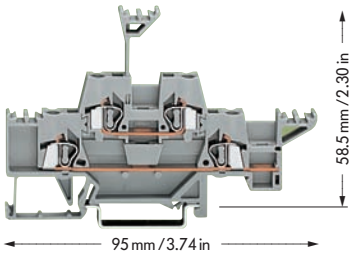
0.08 – 2.5 mm²	AWG 28 – 12
500 V/6 kV/3 ❶	300 V, 15 A
20 A	300/600 V, 20/5 A

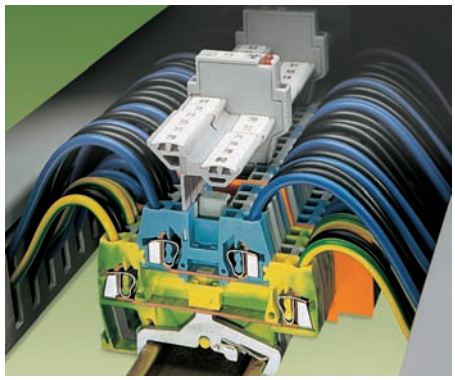
Terminal block width 5 mm / 0.197 in

8 – 9 mm / 0.33 in

* GL BV LR NV







Example of a mixed assembly with double deck terminal blocks

	Item No.	Pack. unit pcs
Double deck terminal block, with additional marking possibilities on both sides of the terminal block, for DIN 35 rail **Through/through terminal block**		
grey	**280-513**	50
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**280-341**	100 (4 x 25)
grey	**280-340**	100 (4 x 25)
Intermediate plate, 1.1 mm/0.043 in thick		
orange	**280-366**	100 (4 x 25)

	Item No.	Pack. unit pcs
Double deck terminal block, with additional marking possibilities on both sides of the terminal block, for DIN 35 rail **Through/through terminal block horizontal jumpering on lower level**		
grey	**280-543**	50
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**280-343**	100 (4 x 25)
grey	**280-342**	100 (4 x 25)
Intermediate plate, 1.1 mm/0.043 in thick		
orange	**280-369**	100 (4 x 25)

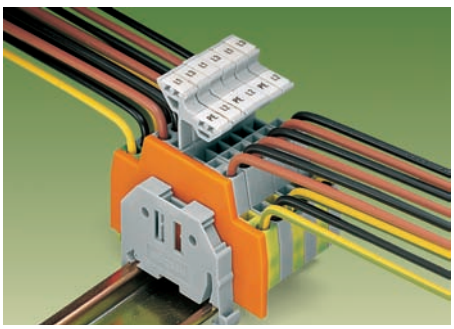
Accessories Series 280, see page 2.13 for a complete overview

Appropriate marking system **WMB/WSB** (see section 14)

Adjacent jumper, insulated, I_N 24 A		
grey	**280-402**	200 (8 x 25)
Alternate jumper, insulated, I_N 24 A		
grey	**280-409**	100 (4 x 25)
Vertical jumper, insulated, I_N 24 A		
grey	**281-421**	200 (8 x 25)

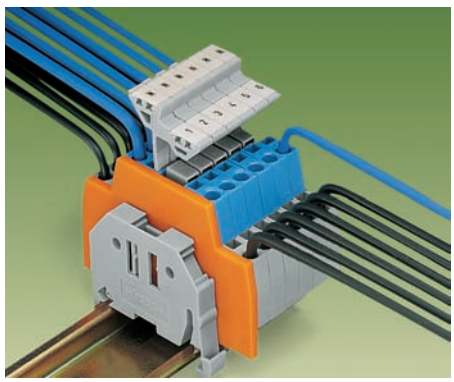
Comb type jumper bar ❷, ins., $I_N = I_N$ of terminal block		
2-way	**280-482**	200 (8 x 25)
3-way	**280-483**	200 (8 x 25)
10-way	**280-490**	50 (2 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**280-492**	200 (8 x 25)
Operating tool, insulated		
2-way	**280-432**	1
3-way	**280-433**	1
10-way	**280-440**	1

Application notes



Double deck terminal blocks used for the connection of a three-phase motor

Standard insulated push-in jumpers can be used for commoning. A vertical jumper allows commoning of upper and lower level, giving a 4-conductor commoned through terminal block in one housing. Two adjacent terminals may be commoned together on the same level using a push-in adjacent jumper.



Double deck terminal blocks used as control wire terminals; for ex. for magnetic valves. Upper deck commoned.

The flexible marker carrier, which is placed above the wiring level, can be pushed aside during the wiring or commoning operation. The marker carrier has two levels for two different markers relating to the two decks of the terminal blocks.

The double deck terminal blocks, series 280, are available with decks of same or different color according to the function. This is an additional visual aid during wiring or in case of possible service and maintenance work.

With a terminal block width of only 5 mm/0.197 in, an effective width of only 2.5 mm/0.098 in for terminal blocks of same or different potential can be realized at a cross sectional area of 0.08 mm² to 2.5 mm²/AWG 28 – 14!

❶ 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

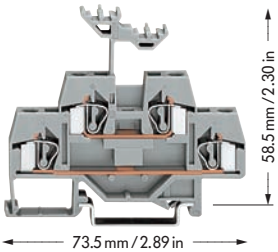
❷ See application notes on pages 2.43 and 2.44

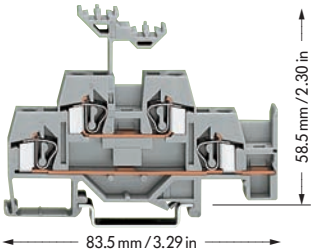
* For further approvals with corresponding ratings see section 15.

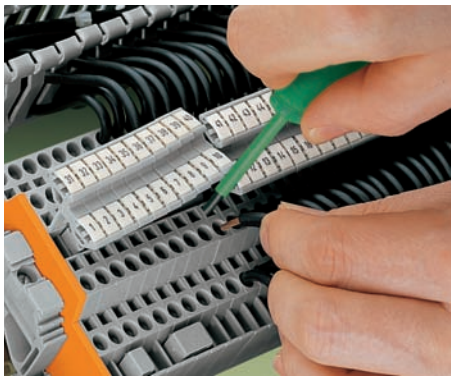
Double Deck Terminal Blocks 4 mm² / AWG 12, Series 281

0.08 – 4 mm² 500 V/6 kV/3 ❶ 26 A	AWG 28 – 12 300 V, 15 A 600 V, 15 A
Terminal block width 6 mm / 0.236 in 9 – 10 mm / 0.37 in	
* GL BV LR NV	

0.08 – 4 mm² 500 V/6 kV/3 ❶ 26 A	AWG 28 – 12 300 V, 15 A 600 V, 15 A
Terminal block width 6 mm / 0.236 in 9 – 10 mm / 0.37 in	
* GL BV LR NV	

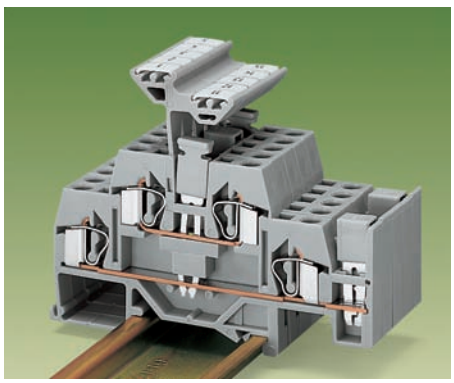





Wiring

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/through terminal blocks		
grey	**281-619**	50
blue	**281-629** ❷	50
Other terminal blocks with the same shape		
diode/LED	**281-6xx/...-...**	page 7.62
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**281-341**	100 (4 x 25)
grey	**281-340**	100 (4 x 25)

	Item No.	Pack. unit pcs
Double deck terminal block, for DIN 35 rail		
Through/through terminal blocks horizontal jumpering on lower level		
grey	**281-620**	50
blue	**281-630** ❷	50
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**281-343**	100 (4 x 25)
grey	**281-342**	100 (4 x 25)


Commoning of double deck terminal blocks

Accessories Series 281, see page 2.17 for a complete overview

Appropriate marking system **WMB/WSB** (see section 14)

	Item No.	Pack. unit pcs
Insulation stop ❸, 5 pcs/strip		
white	**281-470**	200 strips
light grey	**281-471**	200 strips
dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A		
grey	**281-402**	200 (8 x 25)
yell.-green	**281-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 32 A		
grey	**281-409**	100 (4 x 25)
Vertical jumper, insulated, I_N 24 A		
grey	**281-421**	200 (8 x 25)
Comb type jumper bar ❸, ins., $I_N = I_N$ of terminal block		
2-way	**281-482**	100 (4 x 25)
3-way	**281-483**	100 (4 x 25)
10-way	**281-490**	50 (2 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**281-492**	100 (4 x 25)
Operating tool, insulated		
2-way	**280-432**	1
3-way	**280-433**	1
5-way	**281-440**	1

	Item No.	Pack. unit pcs
Insulation stop ❸, 5 pcs/strip		
white	**281-470**	200 strips
light grey	**281-471**	200 strips
dark grey	**281-472**	200 strips
Adjacent jumper, insulated, I_N 32 A		
grey	**281-402**	200 (8 x 25)
yell.-green	**281-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 32 A		
grey	**281-409**	100 (4 x 25)
Vertical jumper, insulated, I_N 24 A		
grey	**281-421**	200 (8 x 25)
Comb type jumper bar ❸, ins., $I_N = I_N$ of terminal block		
2-way	**281-482**	100 (4 x 25)
3-way	**281-483**	100 (4 x 25)
10-way	**281-490**	50 (2 x 25)
Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block		
2-way	**281-492**	100 (4 x 25)
Operating tool, insulated		
2-way	**280-432**	1
3-way	**280-433**	1
5-way	**281-440**	1

❶ 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

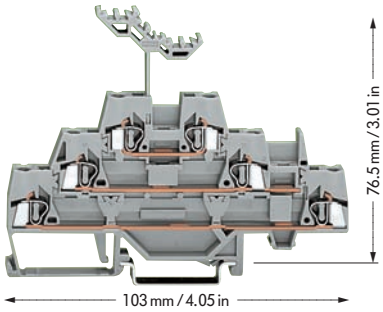
❷ Suitable for Ex i applications

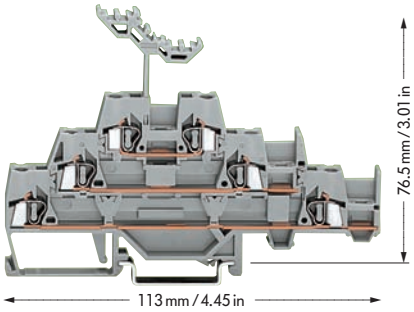
❸ See application notes on pages 2.43 and 2.44

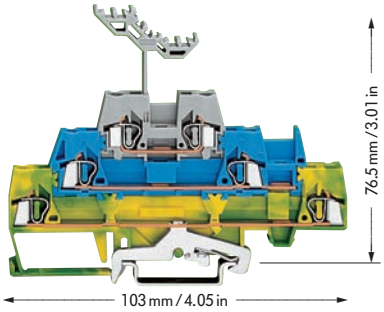
* For further approvals with corresponding ratings see section 15.

Triple Deck Terminal Blocks 2.5 mm² / AWG 12, Series 280

0.08 – 2.5 mm² / AWG 28 – 12	0.08 – 2.5 mm² / AWG 28 – 12	0.08 – 2.5 mm² / AWG 28 – 12
500 V/6 kV/3 ❶ / 300/600 V, 15/5 A / 300/600 V, 20/5 A	500 V/6 kV/3 ❶ / 300/600 V, 15/5 A / 300/600 V, 20/5 A	500 V/6 kV/3 ❶ / 300/600 V, 15/5 A / 300/600 V, 20/5 A
20 A	20 A	20 A
Terminal block width 5 mm / 0.197 in	Terminal block width 5 mm / 0.197 in	Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in	8 – 9 mm / 0.33 in	8 – 9 mm / 0.33 in
* GL BV LR NV	* GL BV LR NV	* GL BV LR NV



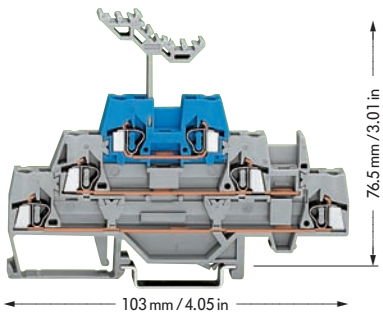


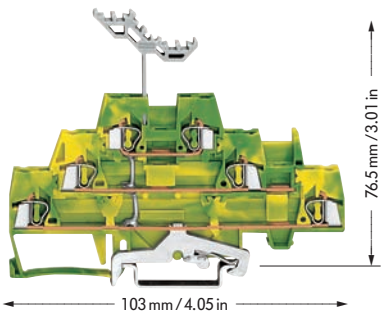


	Item No.	Pack. unit pcs
Triple deck terminal block, for DIN 35 rail		
Through/through/through terminal blocks		
grey	**280-549**	40
blue	**280-551**	40

	Item No.	Pack. unit pcs
Triple deck terminal block, for DIN 35 rail		
Through/through/through terminal block horizontal jumpering on lower level		
grey	**280-550**	40

	Item No.	Pack. unit pcs
Triple deck terminal block, for DIN 35 rail		
Ground (earth)/through/through terminal blocks		
green-yel./blue/grey	**280-547**	40
green-yel./grey/grey	**280-557**	40
Shield (screen)/through/through terminal blocks		
white/grey/grey	**280-548**	40
white/blue/grey	**280-558**	40





	Item No.	Pack. unit pcs
Triple deck terminal block, for DIN 35 rail		
Through/through/through terminal block		
grey/grey/blue	**280-552**	40

	Item No.	Pack. unit pcs
Triple deck terminal block, for DIN 35 rail		
6-cond. gr. (earth) term. block, internal commoning		
green-yellow	**280-597**	40

End and intermediate plate, 2.5 mm/0.098 in thick



	Item No.	Pack. unit pcs
orange	**280-304**	100 (4 x 25)
grey	**280-303**	100 (4 x 25)

End and intermediate plate, 2.5 mm/0.098 in thick



	Item No.	Pack. unit pcs
orange	**280-306**	100 (4 x 25)
grey	**280-305**	100 (4 x 25)

End and intermediate plate, 2.5 mm/0.098 in thick



	Item No.	Pack. unit pcs
orange	**280-304**	100 (4 x 25)
grey	**280-303**	100 (4 x 25)

Intermediate plate, 1.1 mm/0.043 in thick



	Item No.	Pack. unit pcs
orange	**280-336**	100 (4 x 25)

Intermediate plate, 1.1 mm/0.043 in thick



	Item No.	Pack. unit pcs
orange	**280-339**	100 (4 x 25)

Intermediate plate, 1.1 mm/0.043 in thick



	Item No.	Pack. unit pcs
orange	**280-336**	100 (4 x 25)

Accessories Series 280, see page 2.13 for a complete overview

Appropriate marking system **WMB/WSB** (see section 14)

Adjacent jumper, insulated, I_N 24 A



	Item No.	Pack. unit pcs
grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)

Alternate jumper, insulated, I_N 24 A



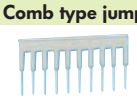
	Item No.	Pack. unit pcs
grey	**280-409**	100 (4 x 25)

Vertical jumper, insulated, I_N 24 A



	Item No.	Pack. unit pcs
grey	**281-421**	200 (8 x 25)

Comb type jumper bar ❸, ins., $I_N = I_N$ of terminal block



	Item No.	Pack. unit pcs
2-way	**280-482**	200 (8 x 25)
3-way	**280-483**	200 (8 x 25)
10-way	**280-490**	50 (2 x 25)

Alternate comb type jumper bar, insulated, $I_N = I_N$ of terminal block



	Item No.	Pack. unit pcs
2-way	**280-492**	200 (8 x 25)

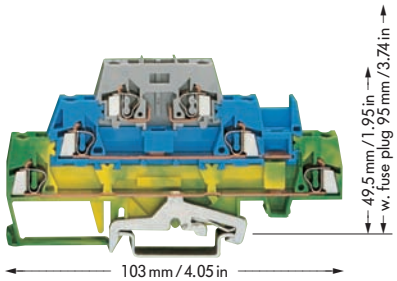
Operating tool, insulated



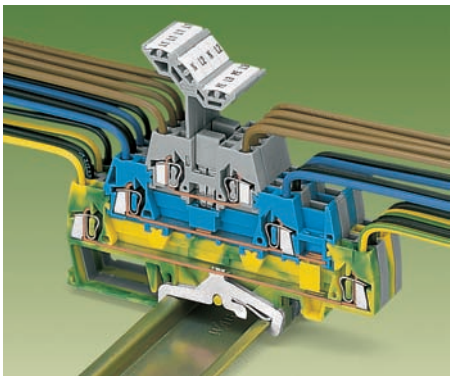
	Item No.	Pack. unit pcs
2-way	**280-432**	1
3-way	**280-433**	1
10-way	**280-440**	1

* For further approvals with corresponding ratings see section 15.

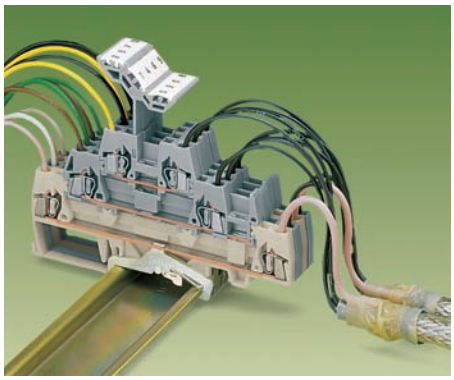
0.08 – 2.5 mm² | **AWG 28 – 12**
400 V/6 kV/3 ❶ ❷ | **300/600 V, 15/5 A**
6.3 A ❷ / 20 A | **600 V, 20 A**
Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in
* GL BV LR NV



	Item No.	Pack. unit pcs
Triple deck terminal block, for DIN 35 rail		
Ground (earth) conductor/through/carrier terminal blocks for pluggable fuse modules		
green-yellow/blue/grey (shown)	**280-510**	50
grey/grey/grey (not shown)	**280-889**	50
End and intermediate plate, 2.5 mm/0.098 in thick		
orange	**280-304**	100 (4 x 25)
grey	**280-303**	100 (4 x 25)
Intermediate plate, 1.1 mm/0.043 in thick		
orange	**280-336**	100 (4 x 25)
Accessories Series 280, see page 2.13		
Appropriate marking system	**WMB/WSB** (see section 14)	
Adjacent jumper, insulated, I_N 24 A		
grey	**280-402**	200 (8 x 25)
yell.-green	**280-422**	200 (8 x 25)
Alternate jumper, insulated, I_N 24 A		
grey	**280-409**	100 (4 x 25)
Vertical jumper, insulated, I_N 24 A		
grey	**281-421**	200 (8 x 25)
Fuse plug, for miniature metric fuses		
5 x 20 mm and 5 x 25 mm		
6 mm/0.236 in wide with pull-tab	**281-511**	50
Fuse plug, same as above, but with hole for LED		
(for self-assembly)		
6 mm/0.236 in wide with pull-tab	**281-512**	50
Fuse plug, same as above,		
with additional indicator lamp, LED, AC/DC 24 V,		
Can be used in either polarity direction		
6 mm/0.236 in wide with pull-tab	**281-512/281-501**	50
residual current in case of blown fuse LED 5 – 20 mA		

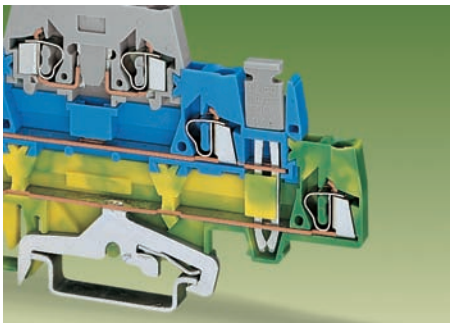


3-wire power circuit with additional branch circuit tapping



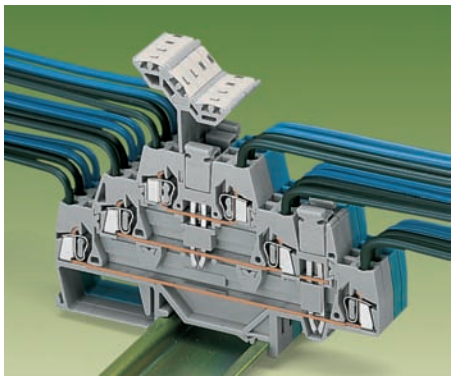
Shielded (screened) twisted pair cable

The triple deck terminal blocks enable three circuits of different potentials to be contained in one 3-level terminal block. The lower decks are wider than the upper, for ease of wiring. Different circuits can be differentiated by color coding of any level.

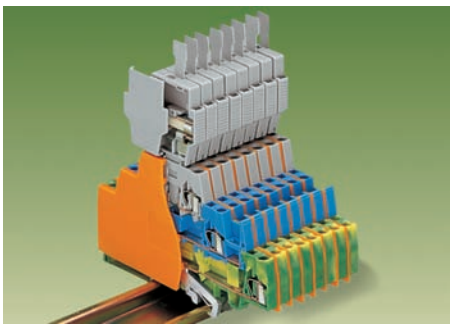


Grounding (earthing) to carrier rail. Connection of N-level to ground (earth) level by vertical jumper

Standard insulated push-in jumpers can be used for commoning. A vertical jumper allows commoning of upper and lower level, giving a 6-conductor commoned through terminal block in one housing. Two adjacent terminals may be commoned together on the same level using a push-in adjacent jumper.



Commoning with vertical and adjacent jumpers



The greater width of the fuse plugs compared to the terminal blocks has to be compensated by use of an intermediate plate (280-336)

The ground (earth) conductor or screen (shield) terminal blocks have a contact foot in the bottom level, ensuring automatically a direct contact to the carrier rail.

The flexible marker carrier, which is placed above the wiring levels, can be pushed aside during the wiring or commoning operation. The marker carrier has three levels for three different markers relating to the three decks of the terminal blocks.

With a terminal block width of only 5 mm/0.197 in an effective width of only 1.67 mm/0.066 in for terminal blocks of same or different potentials can be realized for wire sizes 0.08 – 2.5 mm²/ AWG 28 – 14.

❶ 400/500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

❷ Electrical ratings are given by the fuse or nominal voltage of the indicator lamp respectively
see also pages 7.38 – 7.39

❸ See application notes on pages 2.43 and 2.44

Rail-Mounted Quadruple Deck Terminal Blocks or Rail-Mounted Terminal Blocks for Wiring of Electric Motors, Series 281
Description and Handling

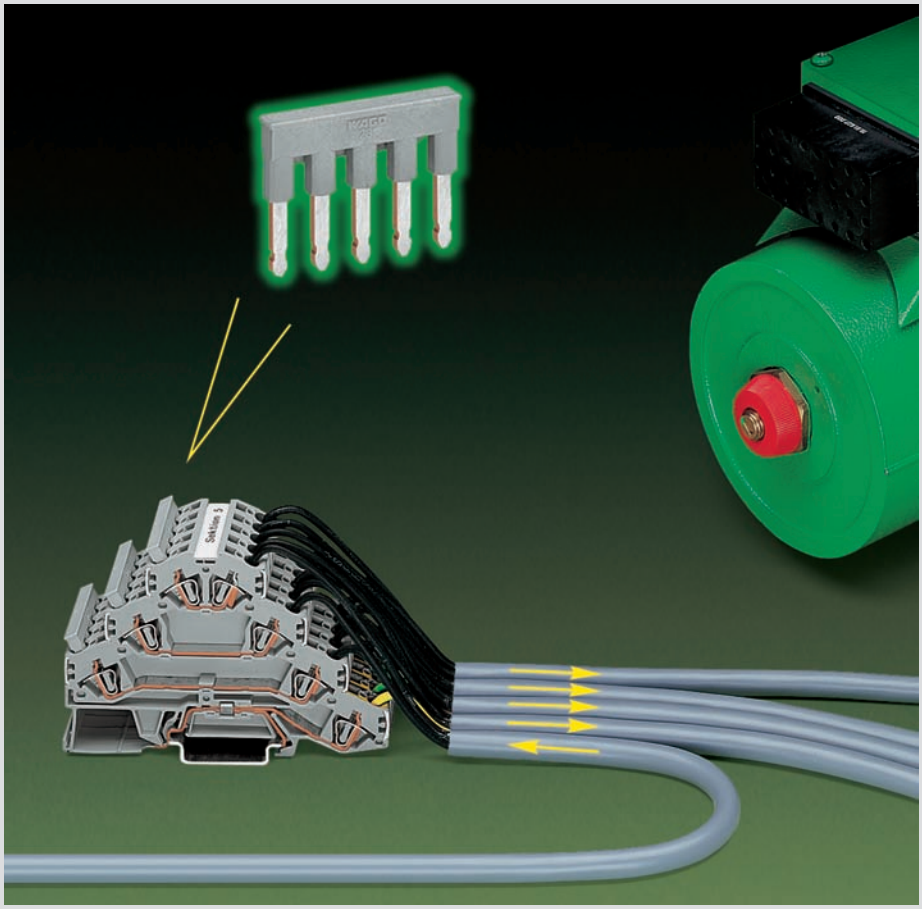
In addition to the rail-mounted terminal blocks for electric motor wiring, new versions are now available.

– Terminal block **without** ground (earth) contact and with only **2** potentials.

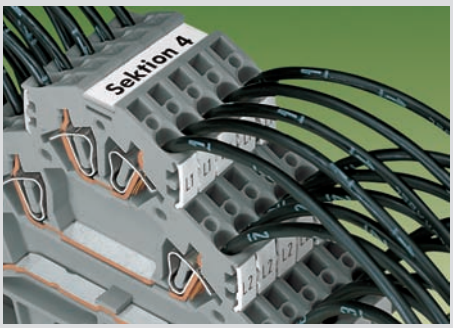
Especially for additional functions such as engine brakes or temperature probes. Having the same shape, this type can be put next to the appropriate terminal block for electric motor wiring without having to use separator plates. That makes the rail assembly clearer and wiring is easier. Since no clamping unit remains unwired, wiring errors are avoided.

– Terminal block **without** ground (earth) contact and with **3** potentials.

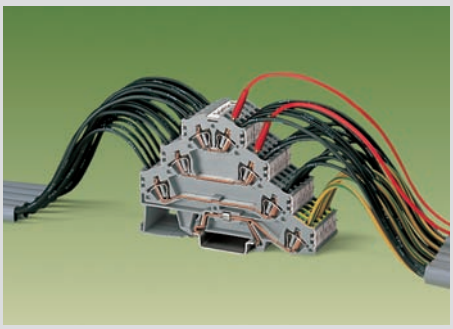
Clear and unambiguous assignment of clamping units is also the main advantage with this type. When using devices with protective insulation for example, there are no open ground (earth) clamping units that could lead to confusion.



Marking

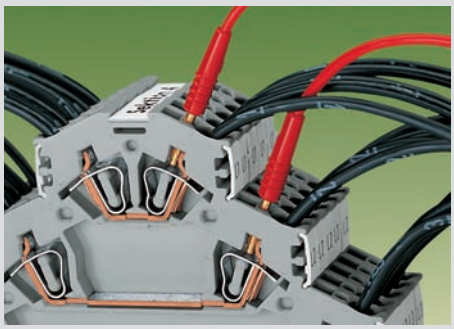


Marking clamping units with WMB multi-marking system or WSB quick marking system.
(see section 14)
Group marking with marking strips
Item No. 709-196.



3 phases and ground (earth) conductor in one terminal block
Compact design

Testing



Testing with test plug 2 mm / 0.079 in Ø

❶ 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

❷ See application notes on pages 2.43 and 2.44

CAGE CLAMP® clamps the following copper wires:*

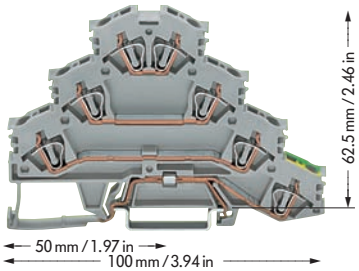
solid	fine-stranded wire – tip bonded	stranded	fine-stranded wire with crimped ferrule**	fine-stranded, also with tinned single strands	fine-stranded wire with crimped pin terminal

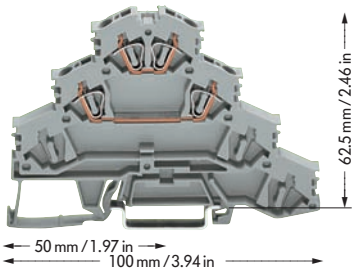
* For aluminum wire see notes in section 15!
** When using wires with ferrules, it is necessary to use a terminal block one size larger than the nominal cross section of the wire.

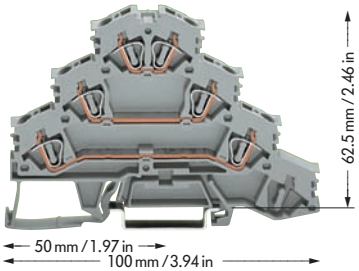
Rail-Mounted Quadruple Deck Terminal Blocks or Rail-Mounted Terminal Blocks for Wiring of Electric Motors Series 281

0.08 – 4 mm² / AWG 28 – 12 400 V/6 kV/3 ❶ 20 A (2.5 mm²) 25 A (4 mm²) / 300 V, 20 A Terminal block width 6 mm / 0.236 in 8 – 9 mm / 0.33 in	0.08 – 4 mm² / AWG 28 – 12 400 V/6 kV/3 ❶ 20 A (2.5 mm²) 25 A (4 mm²) Terminal block width 6 mm / 0.236 in 8 – 9 mm / 0.33 in	0.08 – 4 mm² / AWG 28 – 12 400 V/6 kV/3 ❶ 20 A (2.5 mm²) 25 A (4 mm²) Terminal block width 6 mm / 0.236 in 8 – 9 mm / 0.33 in

* cULus, GL BV LR NV







	Item No.	Pack. unit pcs
Rail-mounted terminal block for wiring of electric motors or rail-mounted quadruple deck terminal block, for DIN 35 rail, L1 – L2 – L3 – PE, grey	**281-530**	50
Rail-mounted terminal block for wiring of electric motors or rail-mounted quadruple deck terminal block, for DIN 35 rail, L1 – L2, grey	**281-531**	50
Rail-mounted terminal block for wiring of electric motors or rail-mounted quadruple deck terminal block, for DIN 35 rail, L1 – L2 – L3, grey	**281-532**	50
End and intermediate plate, 1 mm / 0.039 in thick, orange	**281-366**	100 (4 x 25)
End and intermediate plate, 1 mm / 0.039 in thick, grey	**281-365**	100 (4 x 25)

Accessories Series 281

Appropriate marking system **WMB/WSB** (see section 14)

Insulation stop ❷, 5 pcs / strip	white	**281-470**	200 strips
	light grey	**281-471**	200 strips
	dark grey	**281-472**	200 strips
Comb type jumper bar ❷, insulated, $I_N = I_N$ of terminal block	2-way	**281-482**	100 (4 x 25)
	3-way	**281-483**	100 (4 x 25)
	5-way	**281-485**	100 (4 x 25)
	10-way	**281-490**	50 (2 x 25)
Alternate comb type jumper bar ❷, insulated, $I_N = I_N$ of terminal block	2-way	**281-492**	100 (4 x 25)
Operating tool, insulated	2-way	**280-432**	1
	3-way	**280-433**	1
	5-way	**281-440**	1
Test plug, with cable 500 mm / 1'7.7"	2 mm Ø, red	**210-136**	50 (5 x 10)
	2.3 mm Ø, yel.	**210-137**	50 (5 x 10)
WMB multi-marking system,	10 strips with 10 markers each, white with black printing	see section 14	
WSB quick marking system,	10 strips with 10 markers each, white with black printing	see section 14	
Marker strips, transparent, plain, for central marking – group marking – 1 m / 3'33" long, 7.5 mm / 0.295 in wide	on roll 50 m	**709-177**	1
	on roll 300 m	**709-187**	1

	Item No.	Pack. unit pcs
Insulation stop ❷, 5 pcs / strip	white	**281-470**	200 strips
	light grey	**281-471**	200 strips
	dark grey	**281-472**	200 strips
Comb type jumper bar ❷, insulated, $I_N = I_N$ of terminal block	2-way	**281-482**	100 (4 x 25)
	3-way	**281-483**	100 (4 x 25)
	5-way	**281-485**	100 (4 x 25)
	10-way	**281-490**	50 (2 x 25)
Alternate comb type jumper bar ❷, insulated, $I_N = I_N$ of terminal block	2-way	**281-492**	100 (4 x 25)
Operating tool, insulated	2-way	**280-432**	1
	3-way	**280-433**	1
	5-way	**281-440**	1
Test plug, with cable 500 mm / 1'7.7"	2 mm Ø, red	**210-136**	50 (5 x 10)
	2.3 mm Ø, yel.	**210-137**	50 (5 x 10)
WMB multi-marking system,	10 strips with 10 markers each, white with black printing	see section 14	
WSB quick marking system,	10 strips with 10 markers each, white with black printing	see section 14	
Marker strips, transparent, plain, for central marking – group marking – 1 m / 3'33" long, 7.5 mm / 0.295 in wide	on roll 50 m	**709-177**	1
	on roll 300 m	**709-187**	1

	Item No.	Pack. unit pcs
Insulation stop ❷, 5 pcs / strip	white	**281-470**	200 strips
	light grey	**281-471**	200 strips
	dark grey	**281-472**	200 strips
Comb type jumper bar ❷, insulated, $I_N = I_N$ of terminal block	2-way	**281-482**	100 (4 x 25)
	3-way	**281-483**	100 (4 x 25)
	5-way	**281-485**	100 (4 x 25)
	10-way	**281-490**	50 (2 x 25)
Alternate comb type jumper bar ❷, insulated, $I_N = I_N$ of terminal block	2-way	**281-492**	100 (4 x 25)
Operating tool, insulated	2-way	**280-432**	1
	3-way	**280-433**	1
	5-way	**281-440**	1
Test plug, with cable 500 mm / 1'7.7"	2 mm Ø, red	**210-136**	50 (5 x 10)
	2.3 mm Ø, yel.	**210-137**	50 (5 x 10)
WMB multi-marking system,	10 strips with 10 markers each, white with black printing	see section 14	
WSB quick marking system,	10 strips with 10 markers each, white with black printing	see section 14	
Marker strips, transparent, plain, for central marking – group marking – 1 m / 3'33" long, 7.5 mm / 0.295 in wide	on roll 50 m	**709-177**	1
	on roll 300 m	**709-187**	1

* For further approvals with corresponding ratings see section 15.

Test Plug Modules with CAGE CLAMP®, for Testing of Rail-Mounted Terminal Blocks 2.5 mm²/AWG 14 and 4 mm²/AWG 12, Using the Conductor Wire Opening

Test plug for rail-mounted terminal blocks of series 280 **Module width 5 mm / 0.197 in** **Test voltage 630 V** **Test current 6 A**	**Test plug for rail-mounted terminal blocks of series 281** **Module width 6 mm / 0.236 in** **Test voltage 630 V** **Test current 6 A**	**Note:** **These test plugs are not suitable for Ex e applications**



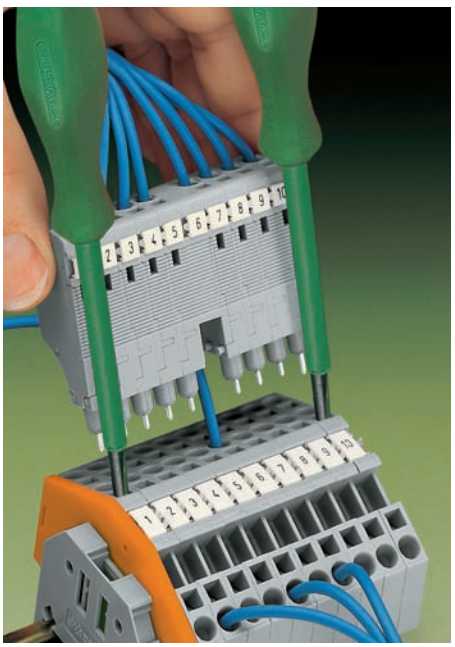
	Item No.	Pack. unit pcs
Test plug module with spring loaded contact pin with CAGE CLAMP®, center module, grey, module width 5 mm / 0.197 in	**249-141**	100 (4 x 25)
End module with rigid contact pin with CAGE CLAMP®, external module, grey, module width 5 mm / 0.197 in	**249-142**	100 (4 x 25)
Spacer module, for bridging over wired terminal blocks, grey, module width 5 mm / 0.197 in	**249-143**	100 (4 x 25)

	Item No.	Pack. unit pcs
Test plug module with spring loaded contact pin with CAGE CLAMP®, center module, grey, module width 6 mm / 0.236 in	**249-144**	100 (4 x 25)
End module with rigid contact pin with CAGE CLAMP®, external module, grey, module width 6 mm / 0.236 in	**249-145**	100 (4 x 25)
Spacer module, for bridging over wired terminal blocks, grey, module width 6 mm / 0.236 in	**249-146**	100 (4 x 25)

Accessories

Miniature WSB quick marking system or	**WMB multi-marking system,** 10 strips with 10 markers each, white with black printing see section 14	
Miniature WSB quick marking system or	**WMB multi-marking system,** 10 strips with 10 markers each, white with black printing see section 14	

Application notes

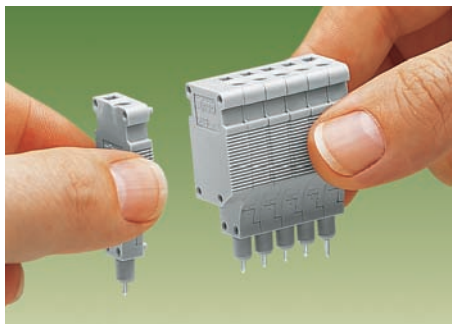


For simple testing of terminal block assemblies, the test plug modules with CAGE CLAMP® (version for testing using the conductor wire opening) may be used for testing unwired terminal blocks. For testing, the module is assembled with spring loaded pins in the center positions and rigid pin modules at the ends.

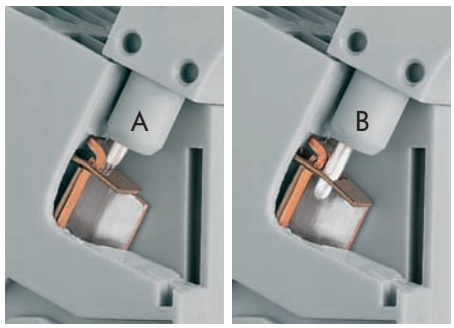
The terminal blocks corresponding to the end position modules are opened using screwdrivers (as shown), these rigid pins are then held in place by the CAGE CLAMP®, the intermediate pins are spring loaded and make contact with the current bars, for test currents up to 6 amps.

Clamping units which need to remain wired may be skipped over by assembling a spacer in the test plug module.

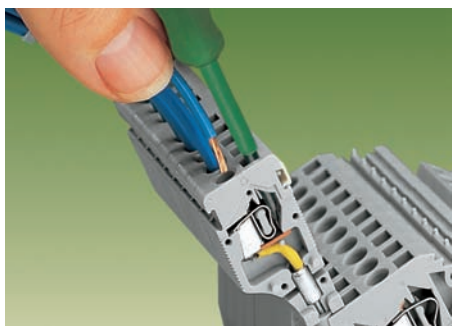
Attention!
Mating direction must be observed (see ill.)



Snapping together of test plug, end and spacer modules to assemble a multipole test plug strip (10-pole max.)



A = center module with spring loaded contact pin
B = external module with rigid contact pin



CAGE CLAMP®
0.08 mm² – 1.5 mm² (AWG 28 – 16), module width 5 mm / 0.197 in
0.08 mm² – 2.5 mm² (AWG 28 – 14), module width 6 mm / 0.236 in

Test Plug Modules with CAGE CLAMP®, for Testing of Rail-Mounted Terminal Blocks 2.5 mm²/AWG 14 and 4 mm²/AWG 12, Using Jumper Contact Position in Current Bar

Test plug for rail-mounted terminal blocks of series 280 **Module width 5 mm / 0.197 in** **Test voltage 630 V** **Test current 10 A**	**Test plug for rail-mounted terminal blocks of series 281** **Module width 6 mm / 0.236 in** **Test voltage 630 V** **Test current 10 A**	**Note:** **These test plugs are not suitable for Ex e applications**





	Item No.	Pack. unit pcs
Test plug module with CAGE CLAMP®, version using jumper contact position in current bar, grey, module width 5 mm / 0.197 in, suitable for all rail-mounted terminal blocks series 280 with jumper contact slots in the current bar	**249-106**	100 (4 x 25)
Spacer module, for bridging over commoned terminal blocks, grey, module width 5 mm / 0.197 in	**249-107**	100 (4 x 25)

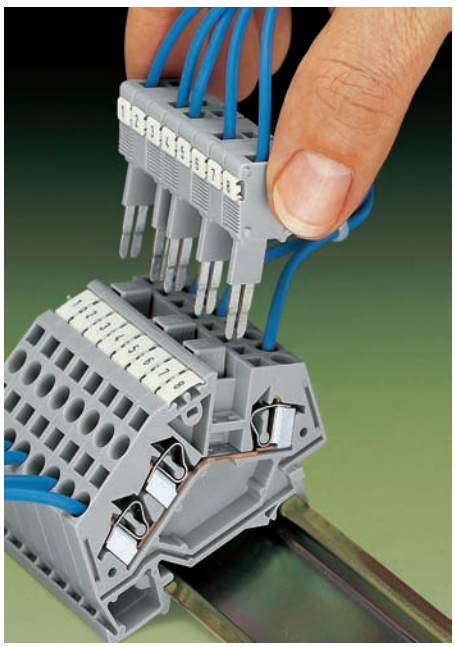
	Item No.	Pack. unit pcs
Test plug module with CAGE CLAMP®, version using jumper contact position in current bar, grey, module width 6 mm / 0.236 in, suitable for all rail-mounted terminal blocks series 281 with jumper contact slots in the current bar	**249-147**	100 (4 x 25)
Spacer module, for bridging over commoned terminal blocks, grey, module width 6 mm / 0.236 in	**249-148**	100 (4 x 25)

Accessories

	Item No.	Pack. unit pcs
Miniature WSB quick marking system or WMB multi-marking system, 10 strips with 10 markers each, white with black printing see section 14		

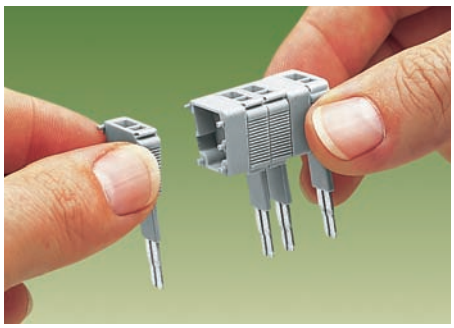
	Item No.	Pack. unit pcs
Miniature WSB quick marking system or WMB multi-marking system, 10 strips with 10 markers each, white with black printing see section 14		

Application notes

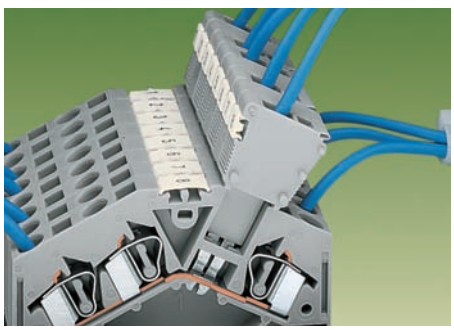


For testing of individual circuits WAGO offers a single-pole test plug accessory with CAGE CLAMP® - up to 2.5 mm²/AWG 14 for direct contact with the current bar of a terminal block, or 1-pole test plug adapters for test plugs 4 mm dia.

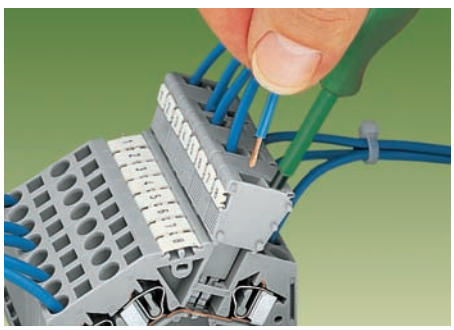
For serial testing on assembled terminal block assemblies WAGO has developed special multi-pole (max. 10) modular test plug modules. For testing completely wired terminal blocks (even when using horizontal jumpers) the test plug modules with CAGE CLAMP® (version with testing using jumper contact position in current bar) are the ideal solution. For this type of testing, the structure of the testing plug modules is exactly adaptable to that of the terminal block assembly. The test plug modules make direct contact to the jumper contact slot of the terminal blocks to be tested.



Snapping together of test plug and spacer modules to assemble multi-pole test plug modules (10-pole max.)



Test plug modules are directly inserted into the jumper contact slots in the current bar



CAGE CLAMP®
0.08 mm² – 1.5 mm² (AWG 28 – 16), module width 5 mm / 0.197 in
0.08 mm² – 2.5 mm² (AWG 28 – 14), module width 6 mm / 0.236 in

Modular Test Plugs for Rail-Mounted Terminal Blocks 2.5 mm²/AWG 14 and 4 mm²/AWG 12

Test plug for rail-mounted terminal blocks of series 280 Module width 5 mm / 0.197 in Test voltage 400 V Test current 6 A	Test plug for rail-mounted terminal blocks of series 281 Module width 6 mm / 0.236 in Test voltage 400 V Test current 6 A	Note: These test plugs are not suitable for Ex e applications





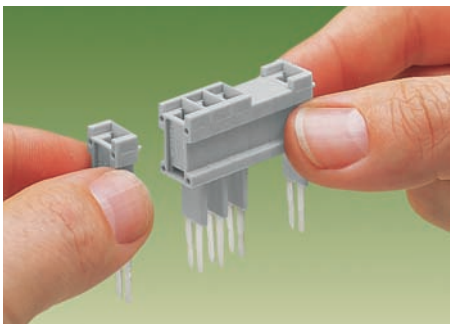
	Item No.	Pack. unit pcs
Test plug, modular, grey, module width 5 mm / 0.197 in, suitable for all rail-mounted terminal blocks series 280 with jumper slots in the current bar	**280-418**	100 (4 x 25)
Spacer, modular, grey, module width 5 mm / 0.197 in, for bridging over alternate or multiple terminal blocks	**280-419**	100 (4 x 25)

	Item No.	Pack. unit pcs
Test plug, modular, grey, module width 6 mm / 0.236 in, suitable for all rail-mounted terminal blocks series 281 with jumper slots in the current bar	**281-418**	100 (4 x 25)
Spacer, modular, grey, module width 6 mm / 0.236 in, for bridging over alternate or multiple terminal blocks	**281-419**	100 (4 x 25)

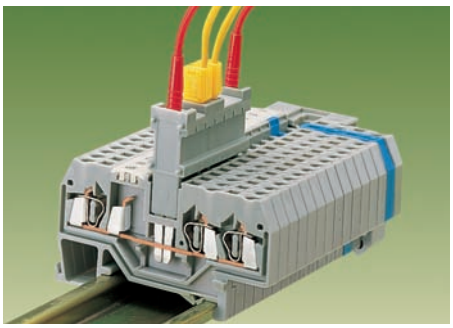
Accessories

		Item No.	Pack. unit pcs
Test plug, with cable 500 mm / 1'7.7"	2 mm Ø, red	**210-136**	50 (5 x 10)
	2.3 mm Ø, yel.	**210-137**	50 (5 x 10)

		Item No.	Pack. unit pcs
Test plug, with cable 500 mm / 1'7.7"	2 mm Ø, red	**210-136**	50 (5 x 10)
	2.3 mm Ø, yel.	**210-137**	50 (5 x 10)



Assembly of modular test plugs and spacers to multipole test plug strips



The modular test plugs are directly pushed into the jumper slots of the current bar

Test Plug Modules with CAGE CLAMP®, for Testing of Rail-Mounted Terminal Blocks 6 mm²/AWG 10 and 10 mm²/AWG 8, Using Jumper Contact Position in Current Bar

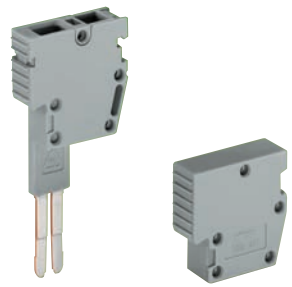
Test plug module ❶ for rail-mounted terminal blocks of series 282
0.2 – 6 mm² | AWG 24 – 10
Module width 8 mm / 0.315 in

12 mm / 0.472 in

Spacer plate for test plug module for testing rail-mounted terminal blocks of series 284
Module width 2 mm / 0.079 in

❶ Test voltage 800 V/ 8 kV
Test current 32 A

Note:
These test plugs are not suitable for Ex e applications





	Item No.	Pack. unit pcs
Test plug module with CAGE CLAMP®, version using jumper contact position in current bar, grey, module width 8 mm/0.315 in, suitable for all rail-mounted terminal blocks series 282 with jumper slots in the current bar	**709-310**	100 (4 x 25)
Spacer module, for bridging over commoned terminal blocks, grey, module width 8 mm/0.315 in	**709-311**	100 (4 x 25)

	Item No.	Pack. unit pcs
Spacer plate, modular, grey, module width 2 mm/0.079 in, snap on test plug modules 709-310 and spacer module 709-311 for testing of rail-mounted terminal blocks series 284	**709-312**	100 (4 x 25)

Accessories

Miniature WSB quick marking system or



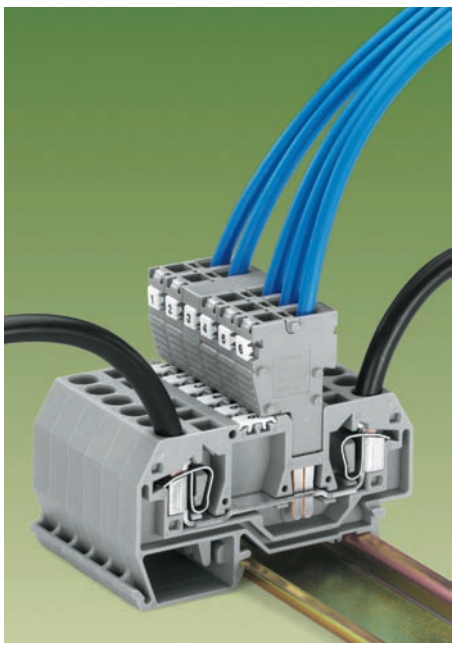
WMB multi-marking system,
10 strips with 10 markers each,
white with black printing
see section 14

Strain relief plate



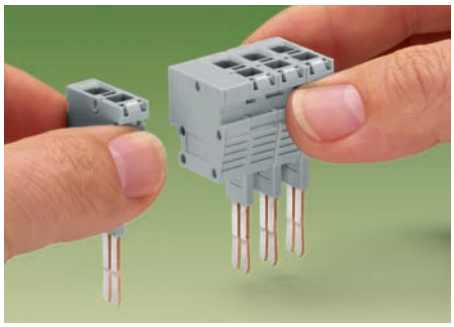
	6 mm²	10 mm²
2-way	**709-332**	**709-322**
4-way	**709-334**	**709-324**
6-way	**709-336**	**709-326**

Application notes

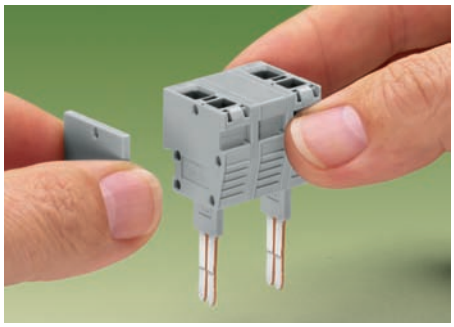


For testing of individual circuits WAGO offers as accessory the single-pole test plugs with CAGE CLAMP® up to 6 mm²/AWG 10 for direct contact with the current bar of a terminal block, or single-pole test plug adapters for test plugs 4 mm dia.

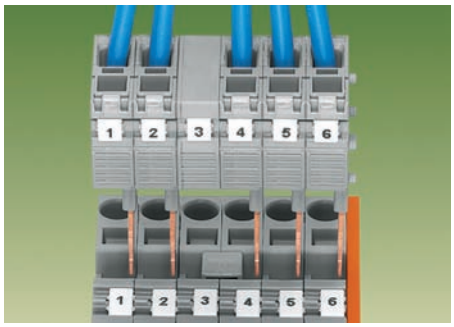
For serial testing on assembled terminal strips WAGO has developed special multipole (max. 10) modular test plug strips. For testing completely wired terminal strips (also when using horizontal jumpers) the test plug modules with CAGE CLAMP® (version with testing using jumper contact position in current bar) are the ideal solution. For this type of testing the structure of the testing strips is exactly adapted to that of the terminal strip. The contacting of the test plug modules is made directly in the jumper contact position of the terminal blocks to be tested.



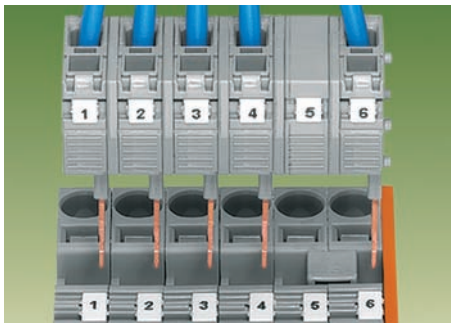
Snapping together of test plug and spacer modules to assemble a multipole test plug strip for series 282 (max. 10 poles)



Snapping together of test plug and spacer modules with spacer plates to assemble a multipole test plug strip for series 284 (max. 10 poles)



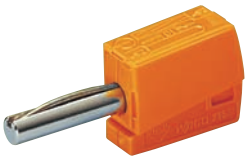
Test plug strips are directly inserted into the jumper contact slots in the current bar (picture shows series 282)



Test plug strip with **spacer plates** for testing of rail-mounted terminal blocks series 284
CAGE CLAMP®
0.2 mm² – 6 mm² AWG 24 – 10

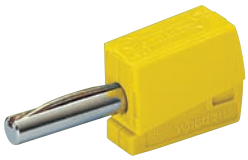
Banana Plugs (Only for Safety Extra-Low Voltage)

For sockets Ø 4 mm / 0.157 in
0.08 – 2.5 mm² | AWG 28 – 14
42 V
20 A
9 – 11 mm / 0.39 in



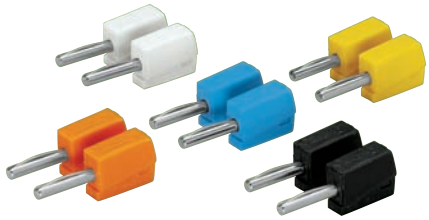
Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
orange	**215-211**	50

For sockets Ø 4 mm / 0.157 in
0.08 – 2.5 mm² | AWG 28 – 14
42 V
20 A
9 – 11 mm / 0.39 in



Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
yellow	**215-511**	50

For sockets Ø 4 mm / 0.157 in
0.08 – 2.5 mm² | AWG 28 – 14
42 V
20 A
9 – 11 mm / 0.39 in



	Item No.	Pack. unit pcs
Banana plugs, for sockets Ø 4 mm/0.157 in		
color mixed	**215-111**	50
10 each – orange, white, black, blue, yellow		



Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
red	**215-212**	50



Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
blue	**215-711**	50



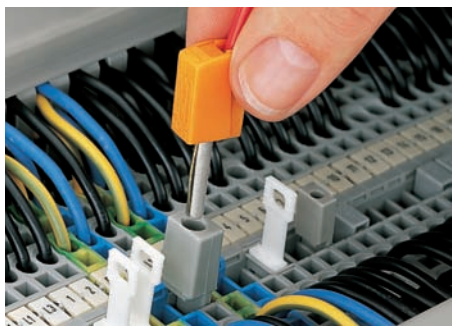
To connect: Press button fully and insert stripped conductor into square entry hole and release.



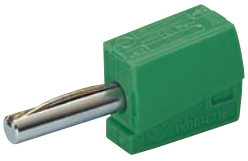
Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
black	**215-311**	50



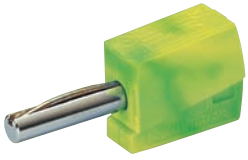
Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
grey	**215-811**	50



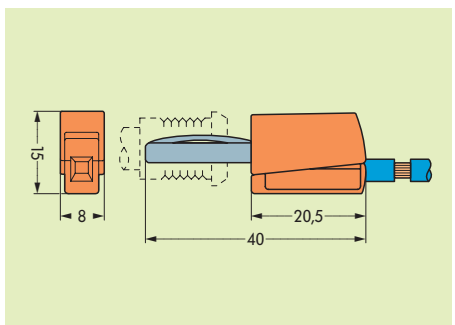
Banana plug used as test plug
Picture shows test adapter 209-170



Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
green	**215-411**	50
white	**215-611**	50



Color	Item No.	Pack. unit pcs
Banana plug, for sockets Ø 4 mm/0.157 in		
green-yellow	**215-911**	50



Insulation Stops for Conductors
0.08 mm² – 1.5 mm² / AWG 28 – 16

Insulation stop, **suitable for all front-entry rail-mounted terminal blocks of series 279** **Terminal block width 4 mm / 0.157 in** **8 – 9 mm / 0.33 in**	**Insulation stop,** **suitable for all front-entry rail-mounted term. blocks of series 280/870 and 880** **Terminal block width 5 mm / 0.197 in** **8 – 9 mm / 0.33 in**	**Insulation stop,** **suitable for all front-entry rail-mounted terminal blocks of series 281** **Terminal block width 6 mm / 0.236 in** **9 – 10 mm / 0.37 in**







Item No.	Pack. unit pcs
Insulation stop, 5 pcs / strip	
white **279-470**	200 strips
0.08 – 0.2 mm² ❶ / AWG 28 – 24	
dark grey **279-471**	200 strips
0.25 mm² / AWG 22	
❶ 0.2 mm² / AWG 24 solid 0.14 mm² / AWG 26 fine-stranded	

Item No.	Pack. unit pcs
Insulation stop, 5 pcs / strip	
white **280-470**	200 strips
0.08 – 0.2 mm² ❶ / AWG 28 – 24	
light grey **280-471**	200 strips
0.25 – 0.5 mm² / AWG 22 – 20	
dark grey **280-472**	200 strips
0.75 – 1 mm² / AWG 18	
❶ 0.2 mm² / AWG 24 solid 0.14 mm² / AWG 26 fine-stranded	

Item No.	Pack. unit pcs
Insulation stop, 5 pcs / strip	
white **281-470**	200 strips
0.08 – 0.2 mm² ❶ / AWG 28 – 24	
light grey **281-471**	200 strips
0.25 – 0.5 mm² / AWG 22 – 20	
dark grey **281-472**	200 strips
0.75 – 1.5 mm² / AWG 18 – 16	
❶ 0.2 mm² / AWG 24 solid 0.14 mm² / AWG 26 fine-stranded	

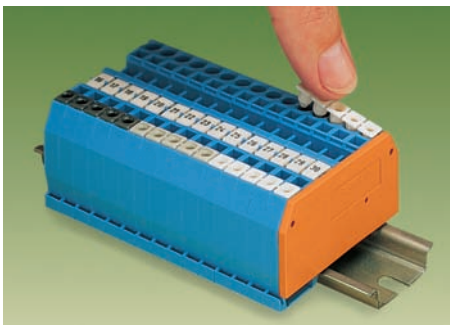
Application notes

For the wiring of programmable logic controllers and microprocessor operated control circuits very small cross sections of fine-stranded conductors are frequently used. These small conductors are so flexible that they deform when pushed against the conductor stop in the terminal blocks. As a result, the conductor insulation may be clamped instead of the copper conductor, resulting in no or very intermittent contact. This problem exists with all types of terminal blocks currently offered on the market. Unnecessary time is spent on fault-tracing as a consequence.

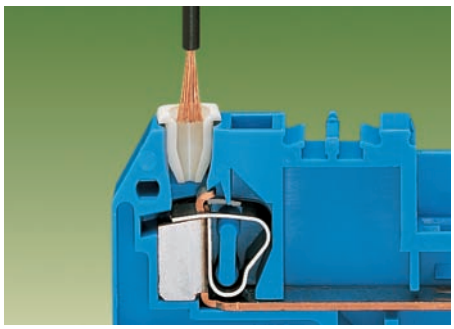
The insulation stop for rail-mounted terminal blocks is the answer to solve these problems. It bundles the cores of fine-stranded conductors automatically when introduced into the clamping unit without any splaying and reduces the conductor entry hole to a defined cross sectional area so that the insulation of these conductors cannot be introduced into the clamping unit.

The insulation stop is available as dividable 5-pole strip for rail-mounted terminal blocks of series 279, 280/870/880 and 281.

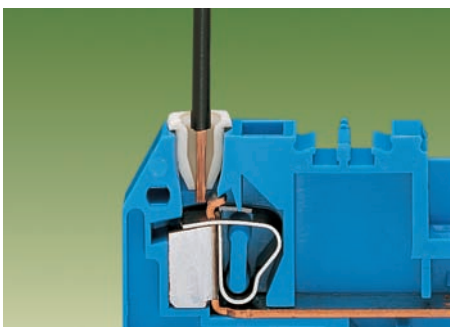
With the use of the insulation stop the conductor stripped lengths related to the respective rail-mounted terminal block, remain unchanged.



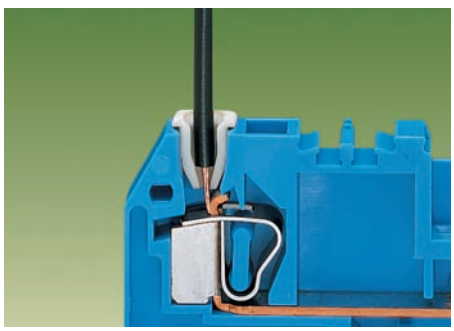
Push insulation stop into the conductor entry holes of front-entry rail-mounted terminal blocks.



Introduce stripped, untwisted conductor into insulation stop . . .



. . . the conductor is bundled . . .

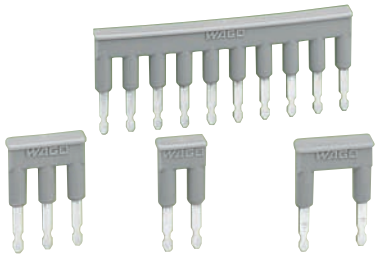


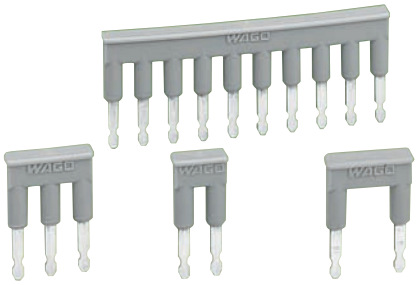
. . . and the conductor insulation is prevented from being pushed into the clamping unit by the positive stop.

Comb Type Jumper Bars and Alternate Comb Type Jumper Bars Operating Tools

Comb type jumper bar and alternate comb type jumper bar for series 279 $I_N = I_N$ of terminal block Operating tool	Comb type jumper bar and alternate comb type jumper bar for series 280/769/880 $I_N = I_N$ of terminal block Operating tool	Comb type jumper bar and alternate comb type jumper bar for series 281 $I_N = I_N$ of terminal block Operating tool

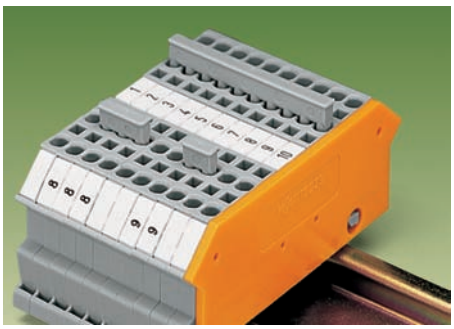




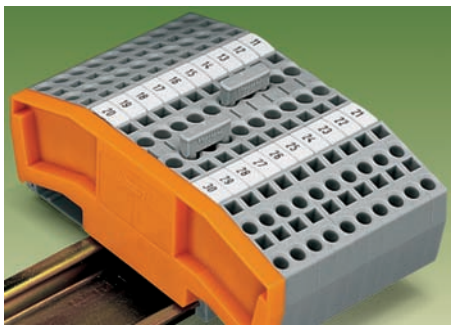


	Item No.	Pack. unit pcs		Item No.	Pack. unit pcs		Item No.	Pack. unit pcs
Comb type jumper bar, insulated			**Comb type jumper bar,** insulated			**Comb type jumper bar,** insulated		
2-way	**279-482**	200 (8 x 25)	2-way	**280-482**	200 (8 x 25)	2-way	**281-482**	100 (4 x 25)
3-way	**279-483**	200 (8 x 25)	3-way	**280-483**	200 (8 x 25)	3-way	**281-483**	100 (4 x 25)
10-way	**279-490**	50 (2 x 25)	10-way	**280-490**	50 (2 x 25)	5-way	**281-485**	100 (4 x 25)
						10-way	**281-490**	50 (2 x 25)
Alternate comb type jumper bar, insulated			**Alternate comb type jumper bar,** insulated			**Alternate comb type jumper bar,** insulated		
2-way	**279-492**	200 (8 x 25)	2-way	**280-492**	200 (8 x 25)	**2-way**	**281-492**	100 (4 x 25)
Operating tool, insulated			**Operating tool,** insulated			**Operating tool,** insulated		
2-way	**279-432**	1	2-way	**280-432**	1	2-way	**280-432**	1
3-way	**279-433**	1	3-way	**280-433**	1	3-way	**280-433**	1
10-way	**279-440**	1	10-way	**280-440**	1	5-way	**281-440**	1
see also section 14			see also section 14			see also section 14		

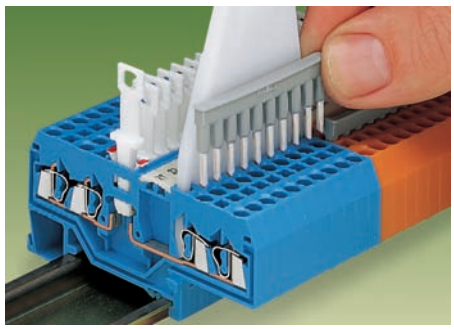
Applications



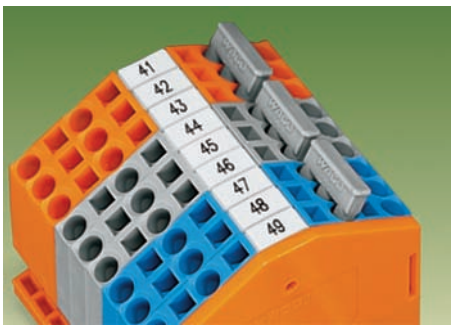
Double potential terminal blocks
2-way, 3-way and 10-way comb type jumper bars



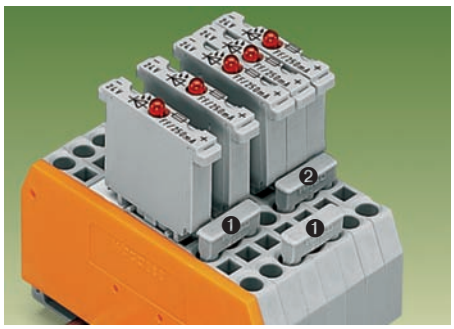
3-conductor double potential terminal blocks
Alternate comb type jumper bars



Disconnect terminal blocks for test purposes
10-way comb type jumper bar



4-conductor through terminal blocks, angled version
Formation of groups with 3-way comb type jumper bars



Carrier terminal blocks with component plugs
❶ Alternate comb type jumper bars
❷ 3-way comb type jumper bar



Diode terminal blocks
10-way comb type jumper bar

Push-in Type Wire Jumpers
Staggered Jumpers

Wire jumpers		Staggered jumpers	
Nominal voltage:	**800 V/8 kV/3**	**Nominal voltage:**	**400 V/6 kV/3**
Nominal current:	**9 A**		**(Ex) 275 V**
Nominal cross section:	**0.75 mm²/AWG 18**		
Conductor lengths:	**60/110/250 mm**		





	Item No.	Pack. unit pcs
Push-in type wire jumpers, insulated, grey, conductor cross section 0.75 mm²/AWG 18, suitable for rail-mounted terminal blocks series 279 (1.5 mm²/AWG 16), 280 (2.5 mm²/AWG 14) and 281/769/880 (4 mm²/AWG 12)		
Wire length		
60 mm/2.362 in	**249-125**	10
Wire length		
110 mm/4.331 in	**249-126**	10
Wire length		
250 mm/9.843 in	**249-127**	10
Note: Push wire jumper down FIRMLY until FULLY inserted!		

	Item No.	Pack. unit pcs
Staggered jumpers, insulated, for terminal blocks series 280, 769 and 880		
I_N 24 A, (Ex) 23 A – 2-conductor terminal blocks		
22 A – 3-conductor terminal blocks		
20 A – 4-conductor terminal blocks		
from 1 to 2	**780-452**	100 (4 x 25)
from 1 to 3	**780-453**	100 (4 x 25)
from 1 to 4	**780-454**	100 (4 x 25)
from 1 to 5	**780-455**	50 (2 x 25)
from 1 to 6	**780-456**	50 (2 x 25)
from 1 to 7	**780-457**	50 (2 x 25)
from 1 to 8	**780-458**	50 (2 x 25)
for terminal blocks series 281		
I_N 32 A, (Ex) 26 A		
from 1 to 2	**781-452**	100 (4 x 25)
from 1 to 3	**781-453**	100 (4 x 25)
from 1 to 4	**781-454**	100 (4 x 25)
from 1 to 5	**781-455**	50 (2 x 25)
from 1 to 6	**781-456**	50 (2 x 25)

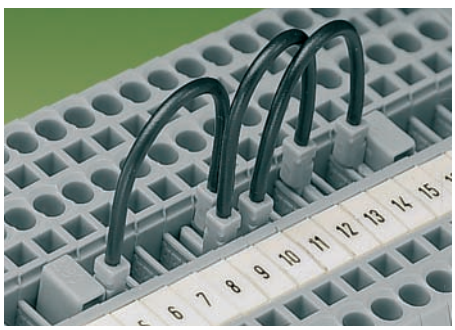
Application notes

Wire jumpers

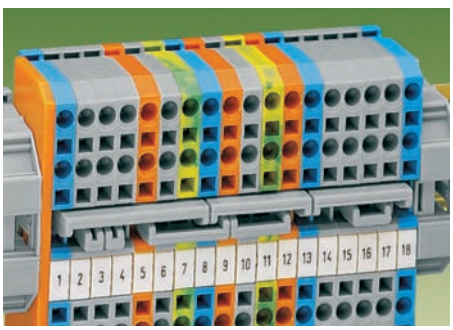
When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not directly adjacent on the rail. In such cases, the new plug-in, touchproof wire jumper is of great help.

Suitable for rail-mounted terminal blocks series 279 (1.5 mm²/AWG 16), 280 (2.5 mm²/AWG 14) and 281/769 and 880 (4 mm²/AWG 12), this jumper is available in 3 different wire lengths: 60 mm, 110 mm and 250 mm. This allows up to 60 terminal blocks between the two blocks being commoned (see table below).

"n" = number of series 279, 280/769/880 and 281 terminal blocks which can be skipped with a wire jumper.



Series 280 and 281 will accept two wire jumpers, so it is possible to bridge several terminal blocks together. Since series 279 will only accept one wire jumper per terminal block, the bridging of several terminal blocks is not possible. Series 280, 769, 281 and 880 permit the introduction of a wire jumper and a adjacent jumper into the same block at the same time.



Staggered jumper for sophisticated wiring jobs

Terminal blocks Series	Wire jumpers Item No.	"n"
279 1.5 mm²/AWG 16	249-125 249-126 249-127	13 25 60
280 2.5 mm²/AWG 14 769, 880 4 mm²/AWG 12	249-125 249-126 249-127	10 20 48
281 4 mm²/AWG 12	249-125 249-126 249-127	9 17 40