

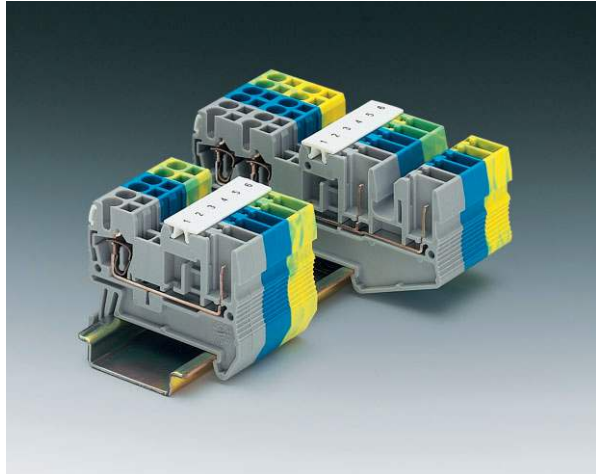
ST-COMBI 4 mm² Pluggable Spring-Cage Terminal Blocks

The fields of application for the pluggable ST-COMBI spring-cage terminal blocks has been added to with solutions for larger conductor cross sections and a higher nominal current.

The product range includes both feed-through terminal blocks with one cable entry and four-wire terminal blocks with two cable entries. Ground terminal blocks with the same shape and the same pitch are available for the various base terminal blocks. Contact is made by simply snapping the terminal block onto the mounting rail.

The corresponding plug types SP 4... can either be ordered ready assembled with 1-15 positions, or the individual components can be ordered for application-specific assembly.

At every connection point of a conductor to the base terminal block or connector there is a testing facility for a 2.3 mm test plug.



Strain relief PZ

Strain reliefs are available for the plugs which, as an option, can be snapped on the SP 4 ... connectors externally.

PZ/PRZ snap-lock fitting

The PR... snap-lock fitting is snapped into the outside of the plug housing as an option and hooks onto the terminal block housing when the plug is snapped on. PRZ can be used when an application requires strain relief and a snap-lock fitting. PRZ is also snapped into the plug housing as an option and offers a combination of functions in a single component.

PC coding option

Specific connector positions can be defined for all the base terminal blocks using the PC coding star. To do this, the individual branches of the coding star are inserted at the coding position in the base terminal block and the coding lug is removed at the corresponding point of the connector.

Shield connection PSH

PSH... provides a solution for the connection of shielded conductors. PSH... is snapped into PZ... or PRZ after the terminal blocks have been wired and is then permanently secured using a cable tie. The PSH connecting cable is connected to a connector conductor and makes contact directly with the terminal block when inserted.












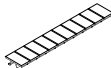
Pluggable Spring-Cage Terminal Blocks ST 4/ 1P



(IEC) [mm ²]	rigid solid	flexible stranded	AWG	I [A]	U [V]
IEC 61 984	0.08-6	0.08-4	28-10	30*	800

* Derating curve see page 9.

Technical data

Spring-cage terminal block, for mounting on 	gray blue	terminal width 6.2 terminal width 6.2	
Cover	gray		
Insulating stop sleeve, prevents unintentional clamping of the insulation in the case of smaller cross sections Cross section range:	gray black	0.25-0.5 mm ² 0.75-1 mm ²	
Plug-in bridge, for cross bridging in the terminal center		2-pos. 3-pos. 4-pos. 5-pos. 10-pos. 20-pos.	
Partition plate, for visual and electrical separation of terminal groups, 2 mm thick			
Test adapter, for 4 mm Ø PS test plug and 4 mm Ø safety test plugs, makes contact in the bridge shaft			
2.3 mm Ø test plug ¹⁾ , consisting of metal part and red insulating sleeve Modular test plug, labeling with ZBF 6			
Coding star, with 4 coding pins, for mounting in all base terminal blocks			
Warning cover, for the actuating ducts of the "mini-spring" ST spring-cage terminal blocks			
Screwdriver, for actuating the tension spring			
Zack strip, flat, for labeling the center and outer marker grooves	white		
Zack strip, 10-section, for labeling in the terminal center	white		

Dimensions

Width / length / end cover width	[mm]	6.2 / 55.8 / 2.2
Height (NS 35/7,5 / NS 35/15)	[mm]	36.5 / 44

Technical data in accordance with IEC/ DIN VDE

Maximum load current / cross section	[A] / [mm ²]	30 / 6
Rated surge voltage / contamination class	[kV] / -	6 / 3
Surge voltage category / insulating material group	- / -	III / I

Connection capacity

Stranded with ferrule with plastic sleeve	[mm ²]	0.25 - 4
Stranded with ferrule without plastic sleeve	[mm ²]	0.25 - 4
Stranded with TWIN ferrule with plastic sleeve	[mm ²]	0.5 - 1
Stripping length	[mm]	10

Internal cylindrical gauge (IEC 60 947-1)

Insulating material		A4
Inflammability class in acc. with UL 94		PA
		V0

Approval data (UL and CSA/CUL)

Nominal voltage / current / conductor sizes	UL: [V] / [A] / AWG	Applied for
	CSA/CUL: [V] / [A] / AWG	Applied for

Type	Order No.	Pcs. Pkt.
ST 4/ 1P	30 42 71 9	50
ST 4/ 1P BU	30 42 87 4	50
D-ST 4	30 30 42 0	50
ISH 4/0,5	30 02 88 5	50
ISH 4/1	30 02 89 8	50
FBS 2-6	I_{max} : 32 A	30 30 33 6
FBS 3-6	32 A	30 30 24 2
FBS 4-6	32 A	30 30 25 5
FBS 5-6	32 A	30 30 34 9
FBS 10-6	32 A	30 30 27 1
FBS 20-6	32 A	30 30 36 5
ATP-ST 4	30 30 72 1	50
PAI 4	30 30 92 5	10
MPS-RD	02 01 55 3	10
PS-6	30 30 99 6	10
PC	30 40 58 8	50
WST 4	30 30 95 4	50
SZF 1 - 0,6 x 3,5	12 04 51 7	10
ZBF 6:UNBEDRUCKT	08 08 71 0	10
ZB 6:UNBEDRUCKT	10 51 00 3	10

¹⁾ Further colors on request.









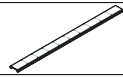
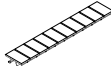
Pluggable Spring-Cage Ground Terminal Blocks ST 4/ 1P-PE



(IEC) [mm ²]	rigid solid	flexible stranded	AWG
IEC 61 984	0.08-6	0.08-4	28-10

Observe the current carrying capacity of the mounting rails.

Technical data

Spring-cage terminal block, for mounting on 	green- yellow	terminal width 6.2	
Cover	gray		
Insulating stop sleeve, prevents unintentional clamping of the insulation in the case of smaller cross sections Cross section range:	gray black	0.25-0.5 mm ² 0.75-1 mm ²	
Plug-in bridge, for cross bridging in the terminal center		2-pos. 3-pos. 4-pos. 5-pos. 10-pos. 20-pos.	
Partition plate, for visual and electrical separation of terminal groups, 2 mm thick			
Coding star, with 4 coding pins, for mounting in all base terminal blocks			
Warning cover, for the actuating ducts of the "mini-spring" ST spring-cage terminal blocks			
Screwdriver, for actuating the tension spring			
Zack strip, flat, for labeling the center and outer marker grooves	white		
Zack strip, 10-section, for labeling in the terminal center	white		

Dimensions

Width / length / end cover width	[mm]
Height (NS 35/7,5 / NS 35/15)	[mm]

Technical data in accordance with IEC/ DIN VDE

Maximum load current / cross section	[A] / [mm ²]
Rated surge voltage / contamination class	[kV] / -
Surge voltage category / insulating material group	- / -

Connection capacity

Stranded with ferrule with plastic sleeve	[mm ²]
Stranded with ferrule without plastic sleeve	[mm ²]
Stranded with TWIN ferrule with plastic sleeve	[mm ²]
Stripping length	[mm]

Internal cylindrical gauge (IEC 60 947-1)

Insulating material

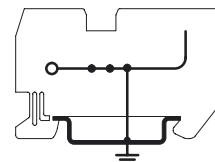
Inflammability class in acc. with UL 94

Approval data (UL and CSA/CUL)

Nominal voltage / current / conductor sizes	UL: [V] / [A] / AWG
	CSA/CUL: [V] / [A] / AWG

Type	Order No.	Pcs. Pkt.
ST 4/ 1P-PE	30 42 72 2	50
D-ST 4	30 30 42 0	50
ISH 4/0,5 ISH 4/1	30 02 88 5 30 02 89 8	50 50
FBS 2-6 FBS 3-6 FBS 4-6 FBS 5-6 FBS 10-6 FBS 20-6	30 30 33 6 30 30 24 2 30 30 25 5 30 30 34 9 30 30 27 1 30 30 36 5	50 50 50 50 10 10
ATP-ST 4	30 30 72 1	50
PC	30 40 58 8	50
WST 4	30 30 95 4	50
SZF 1 - 0,6 x 3,5	12 04 51 7	10
ZBF 6:UNBEDRUCKT	08 08 71 0	10
ZB 6:UNBEDRUCKT	10 51 00 3	10

6.2 / 55.8 / 2.2
36.5 / 44
-
6 / 3
III / I
0.25 - 4
0.25 - 4
0.5 - 1
10
A4
PA
V0
Applied for
Applied for



Pluggable Spring-Cage Terminal Blocks ST 4-QUATTRO/ 2P














(IEC) [mm ²]	rigid solid	flexible stranded	I AWG	U [A]	U [V]
IEC 61 984	0.08-6	0.08-4	28-10	30 1) [*]	800

1) The max. load current must not be exceeded by the total current of all connected conductors.

* Derating curve see page 9.

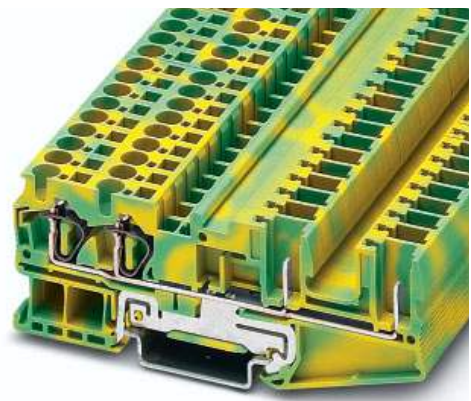
Technical data

Spring-cage terminal block , for mounting on 	gray blue	terminal width 6.2 terminal width 6.2	
Cover	gray		
End cover segment , serves for covering multi-conductor terminal blocks when two-conductor terminal blocks are aligned	gray		
Insulating stop sleeve , prevents unintentional clamping of the insulation in the case of smaller cross sections Cross section range:	gray black	0.25-0.5 mm ² 0.75-1 mm ²	
Plug-in bridge , for cross bridging in the terminal center		2-pos. 3-pos. 4-pos. 5-pos. 10-pos. 20-pos.	
Partition plate , for visual and electrical separation of terminal groups, 2 mm thick			
Test adapter , for 4 mm Ø PS test plug and 4 mm Ø safety test plugs, makes contact in the bridge shaft			
2.3 mm Ø test plug 1) , consisting of metal part and red insulating sleeve Modular test plug , labeling with ZBF 6			
Coding star , with 4 coding pins, for mounting in all base terminal blocks			
Warning cover , for the actuating ducts of the "mini-spring" ST spring-cage terminal blocks			
Screwdriver , for actuating the tension spring			
Zack strip , flat, for center and external labeling	white		
Zack strip , 10-section, for labeling in the terminal center	white		
Dimensions			
Width / length / end cover width		[mm]	6.2 / 97.3 / 2.2
Height (NS 35/7,5 / NS 35/15)		[mm]	36.5 / 44
Technical data in accordance with IEC/ DIN VDE			
Maximum load current / cross section		[A] / [mm ²]	30 / 6
Rated surge voltage / contamination class		[kV] / -	6 / 3
Surge voltage category / insulating material group		- / -	III / I
Connection capacity			
Stranded with ferrule with plastic sleeve		[mm ²]	0.25 - 4
Stranded with ferrule without plastic sleeve		[mm ²]	0.25 - 4
Stranded with TWIN ferrule with plastic sleeve		[mm ²]	0.5 - 1
Stripping length		[mm]	10
Internal cylindrical gauge (IEC 60 947-1)			A4
Insulating material			PA
Inflammability class in acc. with UL 94			V0
Approval data (UL and CSA/CUL)			
Nominal voltage / current / conductor sizes		UL: [V] / [A] / AWG	Applied for
		CSA/CUL: [V] / [A] / AWG	Applied for

Type	Order No.	Pcs. Pkt.	
ST 4-QUATTRO/ 2P	30 42 84 5	50	
ST 4-QUATTRO/ 2P BU	30 42 86 1	50	
D-ST 4-QUATTRO/ 2P	30 43 74 7	50	
DS-ST 4/P	30 43 75 0	50	
ISH 4/0,5	30 02 88 5	50	
ISH 4/1	30 02 89 8	50	
FBS 2-6	I_{max} : 32 A	30 30 33 6	50
FBS 3-6	32 A	30 30 24 2	50
FBS 4-6	32 A	30 30 25 5	50
FBS 5-6	32 A	30 30 34 9	50
FBS 10-6	32 A	30 30 27 1	10
FBS 20-6	32 A	30 30 36 5	10
ATP-ST QUATTRO	30 30 81 5	50	
PAI 4	30 30 92 5	10	
MPS-RD	02 01 55 3	10	
PS-6	30 30 99 6	10	
PC	30 40 58 8	50	
WST 4	30 30 95 4	50	
SZF 1 - 0,6 x 3,5	12 04 51 7	10	
ZBF 6:UNBEDRUCKT	08 08 71 0	10	
ZB 6:UNBEDRUCKT	10 51 00 3	10	

1) Further colors on request.

Pluggable Spring-Cage Ground Terminal Blocks ST 4-QUATTRO/ 2P-PE



(IEC) [mm ²]	rigid solid	flexible stranded	AWG
IEC 61 984	0.08-6	0.08-4	28-10

Observe the current carrying capacity of the mounting rails.

Technical data

Spring-cage terminal block, for mounting on	green- yellow	terminal width 6.2	
Cover	gray		
End cover segment, serves for covering multi-conductor terminal blocks when two-conductor terminal blocks are aligned	gray		
Insulating stop sleeve, prevents unintentional clamping of the insulation in the case of smaller cross sections Cross section range:	gray black	0.25-0.5 mm ² 0.75-1 mm ²	
Plug-in bridge, for cross bridging in the terminal center		2-pos. 3-pos. 4-pos. 5-pos. 10-pos. 20-pos.	
Partition plate, for visual and electrical separation of terminal groups, 2 mm thick			
Coding star, with 4 coding pins, for mounting in all base terminal blocks			
Warning cover, for the actuating ducts of the "mini-spring" ST spring-cage terminal blocks			
Screwdriver, for actuating the tension spring			
Zack strip, flat, for labeling the center and outer marker grooves	white		
Zack strip, 10-section, for labeling in the terminal center	white		

Dimensions

Width / length / end cover width	[mm]	6.2 / 97.3 / 2.2
Height (NS 35/7,5 / NS 35/15)	[mm]	36.5 / 44

Technical data in accordance with IEC/ DIN VDE

Maximum load current / cross section	[A] / [mm ²]	-
Rated surge voltage / contamination class	[kV] / -	6 / 3
Surge voltage category / insulating material group	- / -	III / I

Connection capacity

Stranded with ferrule with plastic sleeve	[mm ²]	0.25 - 4
Stranded with ferrule without plastic sleeve	[mm ²]	0.25 - 4
Stranded with TWIN ferrule with plastic sleeve	[mm ²]	0.5 - 1

Stripping length [mm] 10

Internal cylindrical gauge (IEC 60 947-1) A4

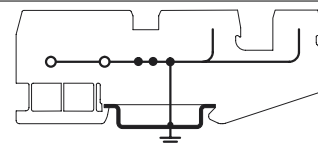
Insulating material

Inflammability class in acc. with UL 94 V0

Approval data (UL and CSA/CUL)

Nominal voltage / current / conductor sizes	UL: [V] / [A] / AWG	Applied for
	CSA/CUL: [V] / [A] / AWG	Applied for

Type	Order No.	Pcs. Pkt.
ST 4-QUATTRO/ 2P-PE	30 42 85 8	50
D-ST 4-QUATTRO/ 2P	30 43 74 7	50
DS-ST 4/P	30 43 75 0	50
ISH 4/0,5	30 02 88 5	50
ISH 4/1	30 02 89 8	50
FBS 2-6	30 30 33 6	50
FBS 3-6	30 30 24 2	50
FBS 4-6	30 30 25 5	50
FBS 5-6	30 30 34 9	50
FBS 10-6	30 30 27 1	10
FBS 20-6	30 30 36 5	10
ATP-ST QUATTRO	30 30 81 5	50
PC	30 40 58 8	50
WST 4	30 30 95 4	50
SZF 1 - 0,6 x 3,5	12 04 51 7	10
ZBF 6:UNBEDRUCKT	08 08 71 0	10
ZB 6:UNBEDRUCKT	10 51 00 3	10



ST-COMBI Plugs

SP 4





(IEC) [mm ²]	rigid solid	flexible stranded	AWG	I [A]	U [V]
Connection data	0.08-6	0.08-4	28-10	30*	800



* Derating curve see page 9.


Technical data

ST-COMBI plug , single, not bridgeable, 6.2 mm wide	gray	1-pos.
	gray	2-pos.
	gray	3-pos.
	gray	4-pos.
	gray	5-pos.
	gray	6-pos.
	gray	7-pos.
	gray	8-pos.
	gray	9-pos.
	gray	10-pos.
	gray	11-pos.
	gray	12-pos.
	gray	13-pos.
	gray	14-pos.
	gray	15-pos.


Insulating stop sleeve , prevents unintentional clamping of the insulation in the case of smaller cross sections Cross section range:	gray	0.25-0.5 mm ²	
	black	0.75-1 mm ²	

Strain relief ,	black	2-pos.	
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Snap-lock fitting , for all plugs	orange	1-pos.	
	orange	2-pos.	

Snap-lock fitting and strain relief for all plugs	orange	2-pos.	
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Shielding , for mounting on PZ/... and PRZ, for shielded conductors with	3-6 mm Ø	
	5-10 mm Ø	

Zack strip , flat, for labeling the outer marker grooves	white	
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Technical data in accordance with IEC/ DIN VDE

Maximum load current / cross section	[A] / [mm ²]	30 / 6
Rated surge voltage / contamination class	[kV] / -	8 / 3
Surge voltage category / insulating material group	- / -	III / I

Connection capacity		
Stranded with ferrule with plastic sleeve	[mm ²]	0.25 - 4
Stranded with ferrule without plastic sleeve	[mm ²]	0.25 - 4
Stranded with TWIN ferrule with plastic sleeve	[mm ²]	0.5 - 1

Stripping length	[mm]	10
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Internal cylindrical gauge (IEC 60 947-1)		A4
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Insulating material		
Inflammability class in acc. with UL 94		PA
		V0

Approval data (UL and CSA/CUL)		
Nominal voltage / current / conductor sizes	UL: [V] / [A] / AWG	Applied for
	CSA/CUL: [V] / [A] / AWG	Applied for

Type	Order No.	Pcs. Pkt.
SP 4/1	30 42 88 7	50
SP 4/2	30 42 89 0	50
SP 4/3	30 42 90 0	50
SP 4/4	30 42 92 6	50
SP 4/5	30 42 93 9	50
SP 4/6	30 42 94 2	25
SP 4/7	30 42 95 5	25
SP 4/8	30 42 96 8	25
SP 4/9	30 42 97 1	25
SP 4/10	30 42 98 4	25
SP 4/11	30 42 99 7	10
SP 4/12	30 43 00 6	10
SP 4/13	30 43 37 8	10
SP 4/14	30 43 72 1	10
SP 4/15	30 43 73 4	10
ISH 4/0,5	30 02 88 5	50
ISH 4/1	30 02 89 8	50
PZ/2	30 40 62 7	50
PR	30 40 55 9	50
PR/2	30 40 63 0	50
PRZ	30 40 61 4	50
PSH 3-6	30 40 59 1	50
PSH 5-10	30 40 60 1	50
ZBF 6:UNBEDRUCKT	08 08 71 0	10

ST-COMBI Plugs for Self-Assembly

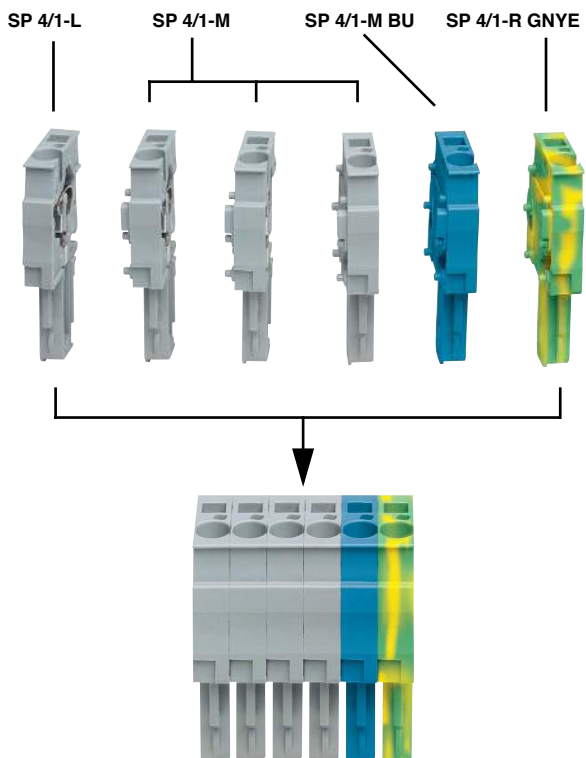
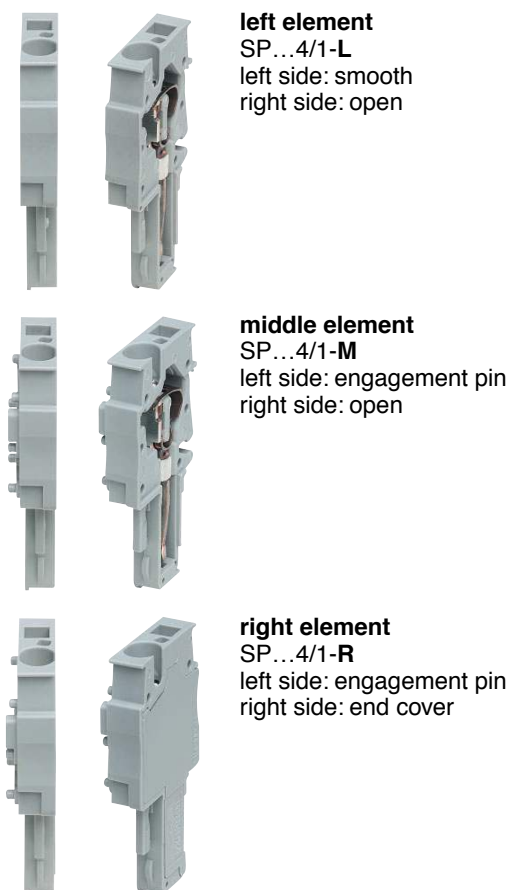
With the ST-COMBI plugs for self-assembly, we offer a solution for every task and it can be implemented by the user himself. The plug is assembled directly on site by snapping together one-position plug elements.

For the existing SP 4... plug a one-position base version is available in gray, blue and green-yellow:

Structure of a plug

For each multiple-position plug, a left element (at the beginning of the plug) and a right element (at the end of the plug) is required. How many middle elements need to be inserted depends on the number of positions of the desired plug. The individual elements are connected by pushing them together and are held by the engagement pins.

Example for the structure of a 6-position plug:



In this view, the open side of the plug is on the right. The different color versions can be combined with each other in any order.

Plugs for Self-Assembly

SP 4/1...



(IEC) [mm ²]	rigid solid	flexible stranded	AWG	I [A]	U [V]
Connection data	0.08-6	0.08-4	28-10	30*	800

* Derating curve see page 9.

Technical data

ST-COMBI plug , single, not bridgeable, 6.2 mm wide, left element	gray blue green-yellow			
ST-COMBI plug , single, not bridgeable, 6.2 mm wide, middle element	gray blue green-yellow			
ST-COMBI plug , single, not bridgeable, 6.2 mm wide, right element	gray blue green-yellow			
Strain relief ,	black	2-pos.		
Snap-lock fitting , for all plugs	orange orange	1-pos. 2-pos.		
Snap-lock fitting and strain relief for all plugs	orange	2-pos.		
Shielding , for mounting on PZ/... and PRZ, for shielded conductors with		3-6 mm Ø 5-10 mm Ø		
Zack strip , for labeling the outer marker grooves	white			

Technical data in accordance with IEC/ DIN VDE

Maximum load current / cross section	[A] / [mm ²]	30 / 6
Rated surge voltage / contamination class	[kV] / -	8 / 3
Surge voltage category / insulating material group	- / -	III / I

Connection capacity

Stranded with ferrule with plastic sleeve	[mm ²]	0.25 - 4
Stranded with ferrule without plastic sleeve	[mm ²]	0.25 - 4
Stranded with TWIN ferrule with plastic sleeve	[mm ²]	0.5 - 1
Stripping length	[mm]	10

Internal cylindrical gauge (IEC 60 947-1)

Insulating material

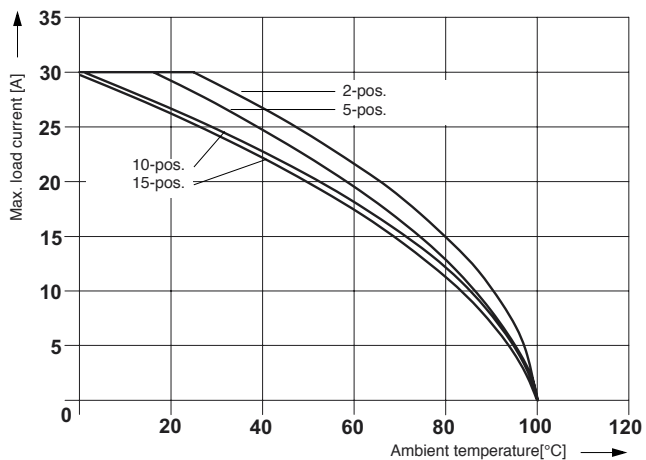
Inflammability class in acc. with UL 94

Approval data (UL and CSA/CUL)

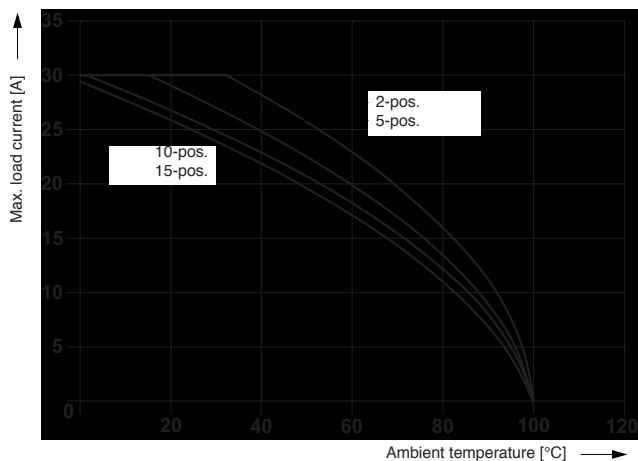
Nominal voltage / current / conductor sizes	UL: [V] / [A] / AWG	Applied for
	CSA/CUL: [V] / [A] / AWG	Applied for

Type	Order No.	Pcs. Pkt.
SP 4/1-L	30 42 75 1	50
SP 4/1-L BU	30 42 76 4	50
SP 4/1-L GNYE	30 42 77 7	50
SP 4/1-M	30 42 78 0	50
SP 4/1-M BU	30 42 79 3	50
SP 4/1-M GNYE	30 42 80 3	50
SP 4/1-R	30 42 81 6	50
SP 4/1-R BU	30 42 82 9	50
SP 4/1-R GNYE	30 42 83 2	50
PZ/2	30 40 62 7	50
PR	30 40 55 9	50
PR/2	30 40 63 0	50
PRZ	30 40 61 4	50
PSH 3-6	30 40 59 1	50
PSH 5-10	30 40 60 1	50
ZBF 6:UNBEDRUCKT	08 08 71 0	10

Derating curve for ST-COMBI-Terminal Blocks



Derating curve for ST 4/1P.
Is valid for all connector versions SP...



Derating curve for ST 4-QUATTRO/ 2P.
Is valid for all connector versions SP...

Additional technical data

Voltage drop over two terminal points (DIN EN 60 947-7-1/2)

≤ 3.2 mV

Rise in temperature (DIN EN 60 947-7-1/2)

≤ 45 K

Immunity to vibration (DIN EN 60 068-2-6:1996-05)

- Frequency
- Amplitude
- Acceleration
- Duration per axis

10-150 Hz
0.35 mm (10-60 Hz)
50 m/s²
2.5 h

Resistance to industrial atmospheres (DIN 50 018:1997-06)

- Level
- No. of cycles

KFW 1.0 S
2

Assessment of fire risk

(DIN EN 60 695-2-11/VDE 0471 Part 2-11:2001-11)

- Test temperature
- Duration

960°C
30 s
