Terminal Blocks for Matrix Patching and Common Potential Terminal Blocks 727 Series

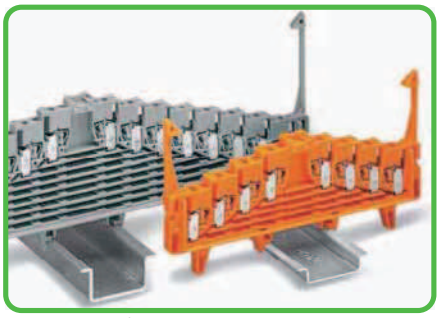
Assembly



Snap individual 4- or 8-level terminal blocks onto the carrier rail.



Terminal blocks slide together.

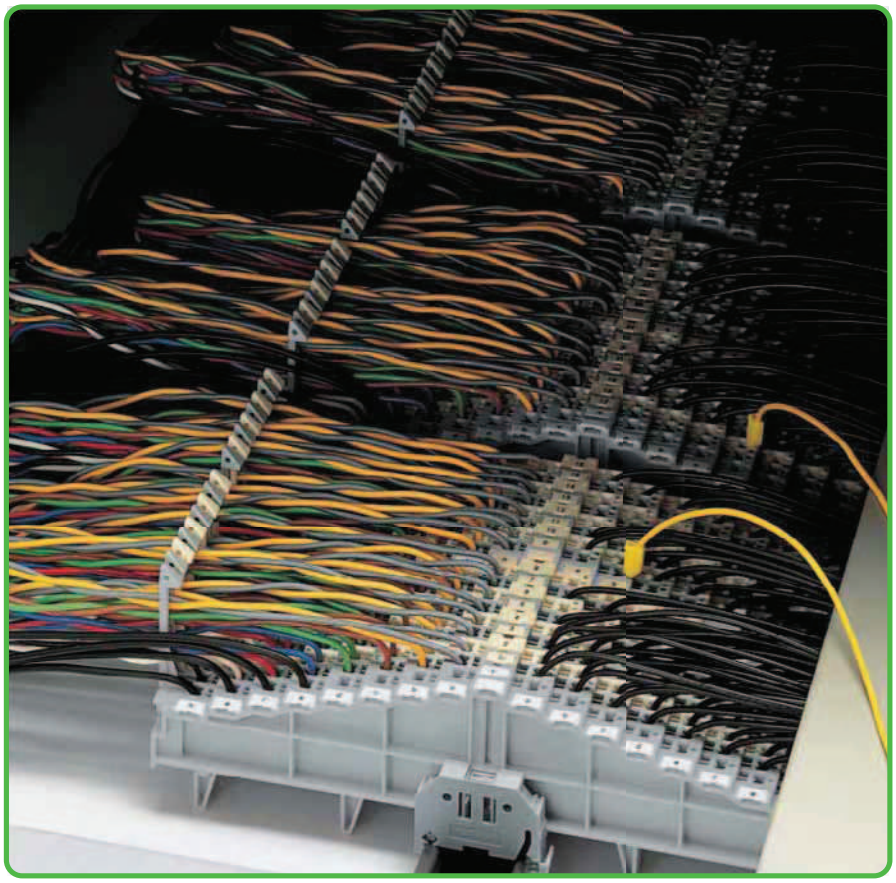


Terminal blocks for DIN 35 x 7.5 mm or DIN 35 x 15 mm rails are available.

Assembly / Removal



Grip end plate at both sides and:
– push down (assembly)
– pull up (removal)

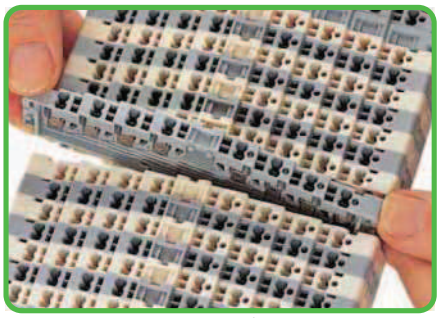


Removal



Open the assembly by laterally sliding a block via (2.5 x 0.4) mm operating tool.

Removal



Slide terminal block and remove from the rail with a levering action.

Marking



Marking clamping units by direct printing.



CAGE CLAMP® clamps the following copper conductors:*

solid



stranded

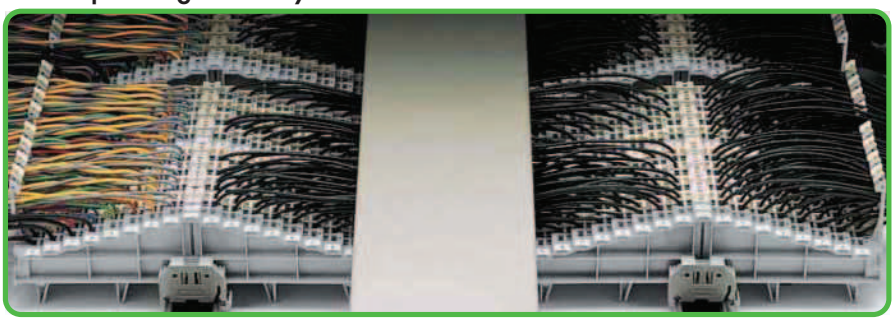


fine-stranded, also with tinned single strands

* For aluminum conductors, see notes in Section 14.

– Description and Handling –

Matrix patching assembly



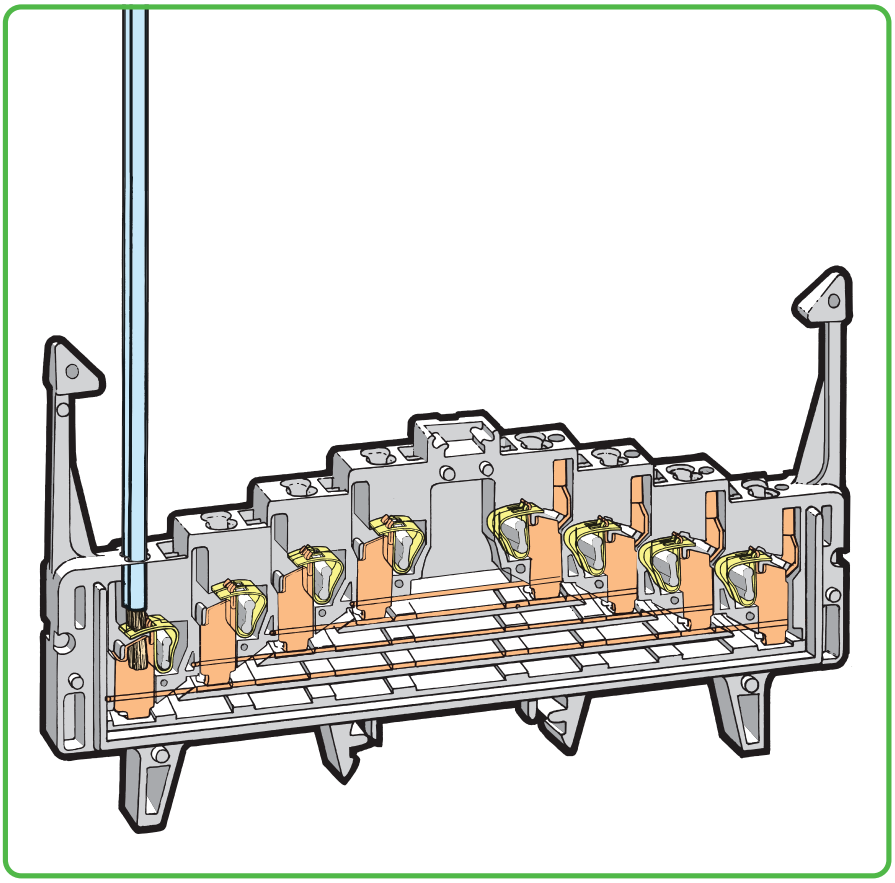
Example
left: Main cables fed through locking clips on the field side
right: Control cables fed between locking clips
center: Wiring of the patching sides

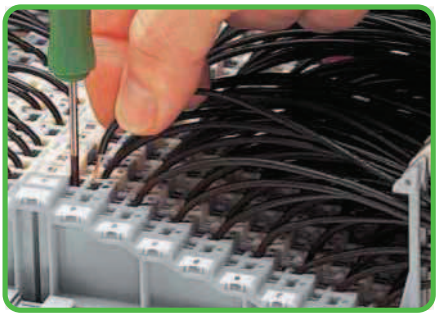
Wiring space



Using terminal blocks with locking clips, the wiring space between the terminal strips can be covered with a wiring duct cover.

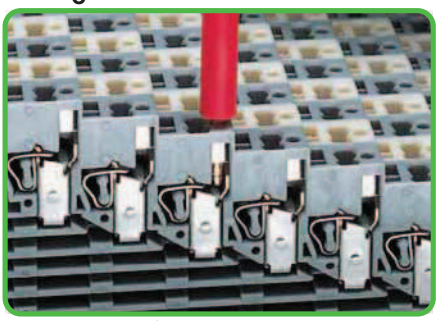
CAGE CLAMP® connection





Terminating/removing conductors with (2.5 x 0.4) mm operating tool.

Testing

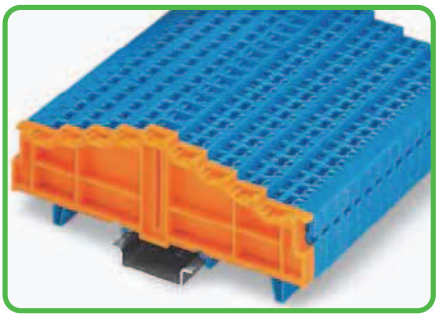


Special test contact for test plug 2.3 mm Ø.

Ex i versions



Marking coordinates via WMB Multi marking system.



Blue terminal blocks for matrix patching are suitable for Ex i applications.



fine-stranded, tip-bonded



fine-stranded, with ferrule ❶ (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

❶ Max. cross section for uninsulated ferrules 1 mm²/AWG 18, for insulated ferrules 0.75 mm²/AWG 20.

4-Level Terminal Blocks for Matrix Patching 1.5 mm²
727 Series

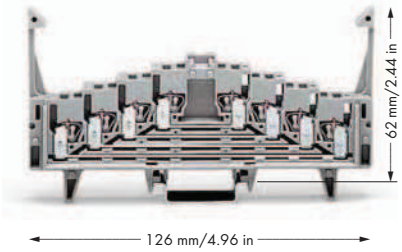
CAGE CLAMP®

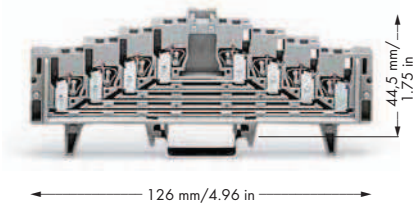
0.08 - 1.5 mm²	AWG 28 - 16
250 V/4 kV/3 ❶	300 V, 10 A
I_N 12 A	300 V, 10 A

Terminal block width 7.62 mm / 0.3 in
8 - 10 mm / 0.35 in ❷

0.08 - 1.5 mm²	AWG 28 - 16
250 V/4 kV/3 ❶	300 V, 10 A
I_N 12 A	300 V, 10 A

Terminal block width 7.62 mm / 0.3 in
8 - 10 mm / 0.35 in ❷





❶ 250 V = rated voltage
4 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Strip length, see packaging or instructions.

❸ Suitable for Ex i applications
60 V = peak value (table 4, EN 50020)
if approved by the works expert

❹ See application notes for:
Wire harness support, page 424

	Item No.	Pack. Unit
4-level terminal block for matrix patching with locking clips,		
4 x pairs of contacts on each level,		
for DIN 35 x 7.5 rail acc. to EN 60715		
gray	**727-219**	50
white	**727-221**	50
blue	**727-223** ❸	50
4-level terminal block for matrix patching with locking clips,		
4 x pairs of contacts on each level,		
for DIN 35 x 15 rail acc. to EN 60715		
gray	**727-229**	50
white	**727-231**	50
blue	**727-233** ❸	50
Item no. suffixes for terminal blocks with marking:		
0-1-2-3–3-2-1-0	**.../021-000**	
a-b-c-d–d-c-b-a	**.../022-000**	
3-2-1-0–0-1-2-3	**.../023-000**	
d-c-b-a–a-b-c-d	**.../024-000**	

	Item No.	Pack. Unit
4-level terminal block for matrix patching without locking clips,		
4 x pairs of contacts on each level,		
for DIN 35 x 7.5 rail acc. to EN 60715		
gray	**727-220**	50
white	**727-222**	50
blue	**727-224** ❸	50
4-level terminal block for matrix patching without locking clips,		
4 x pairs of contacts on each level,		
for DIN 35 x 15 rail acc. to EN 60715		
gray	**727-230**	50
white	**727-232**	50
blue	**727-234** ❸	50
Item no. suffixes for terminal blocks with marking:		
0-1-2-3–3-2-1-0	**.../021-000**	
a-b-c-d–d-c-b-a	**.../022-000**	
3-2-1-0–0-1-2-3	**.../023-000**	
d-c-b-a–a-b-c-d	**.../024-000**	

727 Series Accessories

Appropriate marking system:
WMB (see Section 13)

4-level end plate, 7.62 mm thick,
without marking
orange **727-217** 25

4-level end plate, 7.62 mm thick,
numeric marking,
marking: 0-1-2-3–3-2-1-0
orange **727-205** 25

4-level end plate, 7.62 mm thick,
alphanumeric marking,
marking: a-b-c-d–d-c-b-a
orange **727-206** 25

4-level end plate, 7.62 mm thick,
numeric marking,
marking: 3-2-1-0–0-1-2-3
orange **727-207** 25

4-level end plate, 7.62 mm thick,
alphanumeric marking,
marking: d-c-b-a–a-b-c-d
orange **727-208** 25

Insulation stop,
8 pieces/strip,
0.08 - 0.2 mm² "s" (0.14 mm² "f-st")
white **727-197** 200 (8x25)

Insulation stop,
8 pieces/strip,
0.25 mm² "s" 0.14 - 0.25 mm² "s+f-st"
light gray **727-198** 200 (8x25)

Insulation stop,
8 pieces/strip,
0.25 - 0.5 mm² "s+f-st"
dark gray **727-199** 200 (8x25)

Wire commoning chain, insulated,
31 connections, I_N 6 A,
max. 50 V, 0.5 mm²
gray **709-107** 1

Test plug,
with 500 mm cable,
2.3 mm Ø
yellow **210-137** 50

Step-down test plug,
from 4 mm socket to 2 mm plug
red **210-297** 100 (4x25)

Wire harness support
❹
gray **249-109** 50

Accessories

Double marker carrier, 4 mm wide,
for I/O markings in the terminal block
center
gray **209-128** 200 (2x100)

Screwless end stop,
for DIN 35 rail,
6 mm wide
gray **249-116** 100 (4x25)

Screwless end stop,
for DIN 35 rail,
10 mm wide
gray **249-117** 50 (2x25)

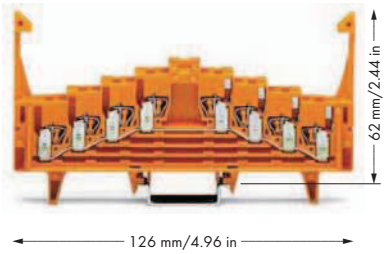
Operating tool with partially insulated shaft,
type 1, (2.5 x 0.4) mm blade
210-719 1

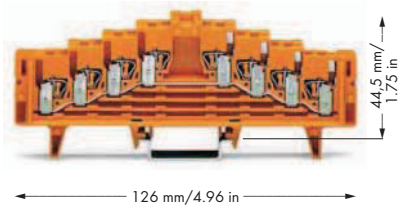
For list of approvals and user guide, see pages 634 to 637.

4-Level Common Potential Terminal Blocks 1.5 mm²
727 Series

0.08 - 1.5 mm²	AWG 28 - 16
250 V/4 kV/3 ❶	300 V, 10 A
I_N 18 A	300 V, 10 A
Terminal block width 7.62 mm / 0.3 in	
8 - 10 mm / 0.35 in ❷	

0.08 - 1.5 mm²	AWG 28 - 16
250 V/4 kV/3 ❶	300 V, 10 A
I_N 18 A	300 V, 10 A
Terminal block width 7.62 mm / 0.3 in	
8 - 10 mm / 0.35 in ❷	





❶ 250 V = rated voltage
4 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Strip length, see packaging or instructions.

❸ See application notes for:
Wire harness support, page 424

	Item No.	Pack. Unit
4-level common potential terminal block with locking clips, all clamping units are connected to the same current bar, for DIN 35 x 7.5 rail acc. to EN 60715		
orange	**727-225**	50
light gray	**727-227**	50
4-level common potential terminal block with locking clips, all clamping units are connected to the same current bar, for DIN 35 x 15 rail acc. to EN 60715		
orange	**727-235**	50
light gray	**727-237**	50
Item no. suffixes for terminal blocks with marking:		
0-1-2-3–3-2-1-0	**.../021-000**	
a-b-c-d–d-c-b-a	**.../022-000**	
3-2-1-0–0-1-2-3	**.../023-000**	
d-c-b-a–a-b-c-d	**.../024-000**	

	Item No.	Pack. Unit
4-level common potential terminal block without locking clips, all clamping units are connected to the same current bar, for DIN 35 x 7.5 rail acc. to EN 60715		
orange	**727-226**	50
light gray	**727-228**	50
4-level common potential terminal block without locking clips, all clamping units are connected to the same current bar, for DIN 35 x 15 rail acc. to EN 60715		
orange	**727-236**	50
light gray	**727-238**	50
Item no. suffixes for terminal blocks with marking:		
0-1-2-3–3-2-1-0	**.../021-000**	
a-b-c-d–d-c-b-a	**.../022-000**	
3-2-1-0–0-1-2-3	**.../023-000**	
d-c-b-a–a-b-c-d	**.../024-000**	

Accessories

Double marker carrier, 4 mm wide,
for I/O markings in the terminal block center
gray **209-128** 200 (2x100)

Screwless end stop,
for DIN 35 rail, 6 mm wide
gray **249-116** 100 (4x25)

Screwless end stop,
for DIN 35 rail, 10 mm wide
gray **249-117** 50 (2x25)

Operating tool with partially insulated shaft,
type 1, (2.5 x 0.4) mm blade
210-719 1

727 Series Accessories

Appropriate marking system:
WMB (see Section 13)

4-level end plate, 7.62 mm thick,
without marking
orange **727-217** 25

4-level end plate, 7.62 mm thick,
numeric marking,
marking: 0-1-2-3–3-2-1-0
orange **727-205** 25

4-level end plate, 7.62 mm thick,
alphanumeric marking,
marking: a-b-c-d–d-c-b-a
orange **727-206** 25

4-level end plate, 7.62 mm thick,
numeric marking,
marking: 3-2-1-0–0-1-2-3
orange **727-207** 25

4-level end plate, 7.62 mm thick,
alphanumeric marking,
marking: d-c-b-a–a-b-c-d
orange **727-208** 25

Insulation stop,
8 pieces/strip,
0.08 - 0.2 mm² "s" (0.14 mm² "f-st")
white **727-197** 200 (8x25)

Insulation stop,
8 pieces/strip,
0.25 mm² "s" 0.14 - 0.25 mm² "s+f-st"
light gray **727-198** 200 (8x25)

Insulation stop,
8 pieces/strip,
0.25 - 0.5 mm² "s+f-st"
dark gray **727-199** 200 (8x25)

Wire commoning chain, insulated,
31 connections, I_N 6 A,
max. 50 V, 0.5 mm²
gray **709-107** 1

Test plug,
with 500 mm cable,
2.3 mm Ø
yellow **210-137** 50

Step-down test plug,
from 4 mm socket to 2 mm plug
red **210-297** 100 (4x25)

Wire harness support ❸
gray **249-109** 50

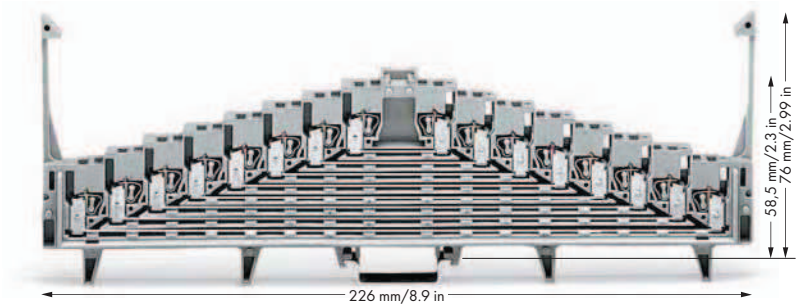
For list of approvals and user guide, see pages 634 to 637.

8-Level Terminal Blocks for Matrix Patching 1.5 mm²
727 Series

CAGE CLAMP®

0.08 - 1.5 mm²	AWG 28 - 16
250 V/4 kV/3 ❶	300 V, 10 A
I_N 10 A	300 V, 10 A
Terminal block width 7.62 mm / 0.3 in	
8 - 10 mm / 0.35 in ❷	

0.08 - 1.5 mm²	AWG 28 - 16
250 V/4 kV/3 ❶	300 V, 10 A
I_N 10 A	300 V, 10 A
Terminal block width 7.62 mm / 0.3 in	
8 - 10 mm / 0.35 in ❷	



❶ 250 V = rated voltage
4 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Strip length, see packaging or instructions.

❸ Suitable for Ex i applications
60 V = peak value (table 4, EN 50020)
if approved by the works expert

❹ See application notes for:
Wire harness support, page 424

Note: Only combine terminal blocks and end plates that are colored gray/white/light gray or orange/blue!

	Item No.	Pack. Unit
8-level terminal block for matrix patching with locking clips,		
8 x pairs of contacts on each level,		
for DIN 35 x 7.5 rail acc. to EN 60715		
gray	**727-119**	25
white	**727-121**	25
blue	**727-123** ❸	25
8-level terminal block for matrix patching with locking clips,		
8 x pairs of contacts on each level,		
for DIN 35 x 15 rail acc. to EN 60715		
gray	**727-129**	25
white	**727-131**	25
blue	**727-133** ❸	25
Item no. suffixes for terminal blocks with marking:		
0-1-2-3-4-5-6-7–7-6-5-4-3-2-1-0	**.../001-000**	
a-b-c-d-e-f-g-h–h-g-f-e-d-c-b-a	**.../002-000**	
7-6-5-4-3-2-1-0–0-1-2-3-4-5-6-7	**.../003-000**	
h-g-f-e-d-c-b-a–a-b-c-d-e-f-g-h	**.../004-000**	

	Item No.	Pack. Unit
8-level terminal block for matrix patching without locking clips,		
8 x pairs of contacts on each level,		
for DIN 35 x 7.5 rail acc. to EN 60715		
gray	**727-120**	25
white	**727-122**	25
blue	**727-124** ❸	25
8-level terminal block for matrix patching without locking clips,		
8 x pairs of contacts on each level,		
for DIN 35 x 15 rail acc. to EN 60715		
gray	**727-130**	25
white	**727-132**	25
blue	**727-134** ❸	25
Item no. suffixes for terminal blocks with marking:		
0-1-2-3-4-5-6-7–7-6-5-4-3-2-1-0	**.../001-000**	
a-b-c-d-e-f-g-h–h-g-f-e-d-c-b-a	**.../002-000**	
7-6-5-4-3-2-1-0–0-1-2-3-4-5-6-7	**.../003-000**	
h-g-f-e-d-c-b-a–a-b-c-d-e-f-g-h	**.../004-000**	

727 Series Accessories

Appropriate marking system:
WMB (see Section 13)

8-level end plate, 7.62 mm thick,			
without marking			
orange	**727-117**	25	
gray	**727-113**	25	
blue	**727-114**	25	
white	**727-115**	25	
light gray	**727-116**	25	
8-level end plate, 7.62 mm thick,			
numeric marking,			
marking: 0-1-2-3-4-5-6-7–7-6-5-4-3-2-1-0			
orange	**727-105**	25	
gray	**727-155**	25	
blue	**727-159**	25	
white	**727-163**	25	
light gray	**727-167**	25	
8-level end plate, 7.62 mm thick,			
alphanumeric marking,			
marking: a-b-c-d-e-f-g-h–h-g-f-e-d-c-b-a			
orange	**727-106**	25	
gray	**727-156**	25	
blue	**727-160**	25	
white	**727-164**	25	
light gray	**727-168**	25	

8-level end plate, 7.62 mm thick,			
numeric marking,			
marking: 7-6-5-4-3-2-1-0–0-1-2-3-4-5-6-7			
orange	**727-107**	25	
gray	**727-157**	25	
blue	**727-161**	25	
white	**727-165**	25	
light gray	**727-169**	25	
8-level end plate, 7.62 mm thick,			
alphanumeric marking,			
marking: h-g-f-e-d-c-b-a–a-b-c-d-e-f-g-h			
orange	**727-108**	25	
gray	**727-158**	25	
blue	**727-162**	25	
white	**727-166**	25	
light gray	**727-170**	25	
Insulation stop,			
8 pieces/strip,			
0.08 - 0.2 mm² "s" (0.14 mm² "f-st")			
white	**727-197**	200 (8x25)	
Insulation stop,			
8 pieces/strip,			
0.25 mm² "s" 0.14 - 0.25 mm² "s+f-st"			
light gray	**727-198**	200 (8x25)	

Accessories

Insulation stop,			
8 pieces/strip,			
0.25 - 0.5 mm² "s+f-st"			
dark gray	**727-199**	200 (8x25)	
Wire commoning chain, insulated,			
31 connections, I_N 6 A,			
max. 50 V, 0.5 mm²			
gray	**709-107**	1	
Test plug,			
with 500 mm cable,			
2.3 mm Ø			
yellow	**210-137**	50	
Step-down test plug,			
from 4 mm socket to 2 mm plug			
red	**210-297**	100 (4x25)	
Wire harness support			
❹ gray	**249-109**	50	
Double marker carrier, 4 mm wide,			
for I/O markings in the terminal block			
center			
gray	**209-128**	200 (2x100)	
WMB Multi marking system,			
for terminal widths 5 - 17.5 mm,			
for PLC input marking			
white	**793-933**	5	
Screwless end stop,			
for DIN 35 rail,			
6 mm wide			
gray	**249-116**	100 (4x25)	
Screwless end stop,			
for DIN 35 rail,			
10 mm wide			
gray	**249-117**	50 (2x25)	
Operating tool with partially insulated shaft,			
type 1, (2.5 x 0.4) mm blade			
	210-719	1	

For list of approvals and user guide, see pages 634 to 637.