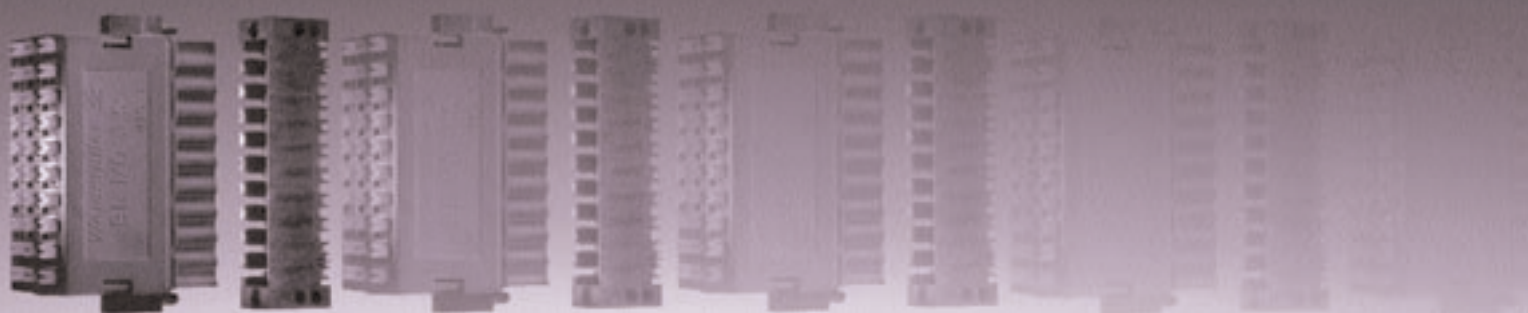


PCB-COMPONENTS
PCB-COMPONENTS



CATALOGUE 2002/03 CATALOGUE 2002/03
CATALOGUE 2002/03
CATALOGUE 2002/03

CATALOGUE SECTION

LM 3.5

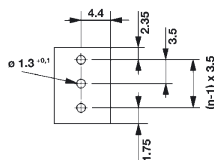
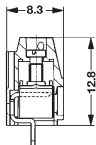
When good enough just isn't good enough

Weidmüller 

Rated cross-section ≤ 1.5 mm²



LM 3.5/90



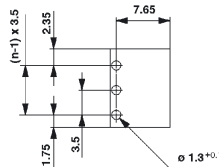
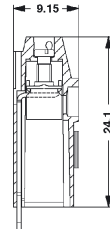
Technical Data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	12	10	10
Clamping range max.	mm ² /AWG	1.5	14	14

*Overvoltage category III / Pollution severity 3
Additional technical data see page 52

Solder pin length **3.2 mm** **4.5 mm**

Colour				
Poles	Type	Cat. No.	Cat. No.	Qty.
2	LM 3.5/2/90	1667750000	1699670000	100
3	LM 3.5/3/90	1667770000	1699680000	100

LM1N 3.5/90



Technical Data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	10	10	10
Clamping range max.	mm ² /AWG	1.5	14	14

*Overvoltage category III / Pollution severity 3
Additional technical data see page 52

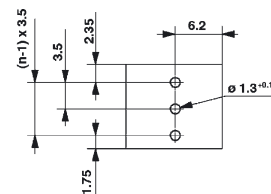
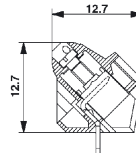
Solder pin length **3.2 mm** **4.5 mm**

Colour				
Poles	Type	Cat. No.	Cat. No.	Qty.
2	LM1N 3.5/2	1716710000	1747380000	100
3	LM1N 3.5/3	1716720000	1747390000	100

Attention: Customers are advised to ensure support for LM1N on the printed circuit board.

Accessories	Page
Marking	42
Fixing	-
Miscellaneous	45

LM 3.5/135



Technical Data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	12	10	10
Clamping range max.	mm ² /AWG	1.5	14	14

*Overvoltage category III / Pollution severity 3
Additional technical data see page 52

Solder pin length **3.2 mm** **4.5 mm**

Colour				
Poles	Type	Cat. No.	Cat. No.	Qty.
2	LM 3.5/2/135	1714980000	1715010000	100
3	LM 3.5/3/135	1715020000	1715050000	100

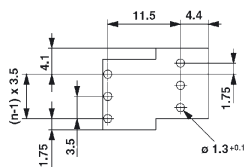
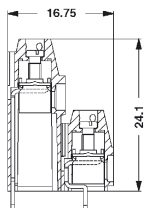
Accessories	Page
Marking	-
Fixing	-
Miscellaneous	-

Rated cross-section ≤ 1.5 mm²

Rated cross-section $\leq 1.5 \text{ mm}^2$



LM2N 3.5/90



Technical Data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	10	10	10
Clamping range max.	mm ² /AWG	1.5	14	14

*Overvoltage category III / Pollution severity 3

Additional technical data see page 52

Solder pin length

3.2 mm

4.5 mm



Colour

Poles	Type	Cat. No.	Cat. No.	Qty.
4	LM2N 3.5/4	1703700000	1720000000	100
6	LM2N 3.5/6	1703710000	1720010000	100
8	LM2N 3.5/8	1703720000	1720020000	50
10	LM2N 3.5/10	1703730000	1720030000	50
12	LM2N 3.5/12	1703740000	1720040000	50
14	LM2N 3.5/14	1703750000	1720050000	50
16	LM2N 3.5/16	1703760000	1720060000	50
18	LM2N 3.5/18	1703770000	1720070000	50
20	LM2N 3.5/20	1703780000	1720080000	50
22	LM2N 3.5/22	1703790000	1720090000	25
24	LM2N 3.5/24	1703800000	1720100000	25
26	LM2N 3.5/26	1703810000	1720110000	25
28	LM2N 3.5/28	1703820000	1720120000	25
30	LM2N 3.5/30	1703830000	1720130000	25
32	LM2N 3.5/32	1703840000	1720140000	25
34	LM2N 3.5/34	1703850000	1720150000	25
36	LM2N 3.5/36	1703860000	1720160000	25
38	LM2N 3.5/38	1703870000	1720170000	25
40	LM2N 3.5/40	1703880000	1720180000	25
42	LM2N 3.5/42	1703890000	1720190000	25
44	LM2N 3.5/44	1703900000	1720200000	25
46	LM2N 3.5/46	1703910000	1720210000	25
48	LM2N 3.5/48	1703920000	1720220000	25

Accessories

Page

Marking	42
Fixing	-
Miscellaneous	45

Materials

Insulation material	
Colour 1)	
Temperature range	°C
Flammability class.	UL94
Contact base material	
Contact plating	

LM 3.5

PA 66
orange, black
-20... +100
V-2
CuSn
tin-plated

LM1N 3.5 / LM2N 3.5

PA 66
orange, black
-20... +100
V-2
CuSn
tin-plated

System characteristic values

Pitch	mm
Connection method	
Solder pin length	mm
PCB hole diameter	Ømm
Insulation stripping length	mm
Clamping screw	M
Insulation resistance	MΩ
Through resistance	mΩ
Torque	Nm

LM 3.5

3.5
screw clamp connection
3.2/4.5
1.3 ^{+0.1}
5.0
2
$\geq 10^3$
≤ 2.2
0.2 ...0.25

LM1N 3.5 / LM2N 3.5

3.5
screw clamp connection
3.2/4.5
1.3 ^{+0.1}
5.0
2
$\geq 10^3$
≤ 3.6
0.2 ...0.25

Conductor size

Clamping range	mm ²
"e" solid H05(07) V-U	mm ²
"f" flexible H05(07) V-K	mm ²
"f" with ferrule to DIN 46228/1	mm ²
... with plastic collar to DIN 46228/4	mm ²
Gauge to EN 60999	mm (size)

LM 3.5

0.08... 1.5
0.5... 1.5
0.5... 1.5
-
-
2.4 x 1.5 (A1)

LM1N 3.5 / LM2N 3.5

0.08... 1.5
0.5... 1.5
0.5... 1.5
-
-
2.4 x 1.5 (A1)

VDE 0110 1.89 rated data

Rated cross-section to EN 60999	mm ²
Rated current 3)	A
Overvoltage category / Pollution severity	
Rated voltage	V
Impulse voltage	kV

LM 3.5

1.5
12
III/3 III/2 II/2
125 200 320
2.5 2.5 2.5

LM1N 3.5 / LM2N 3.5

1.5
10
III/3 III/2 II/2
125 200 320
2.5 2.5 2.5

UL rated data

Rated voltage, industrial	V~
Rated current	A
AWG conductor (field wiring)	

LM 3.5

300
10
28... 14

LM1N 3.5 / LM2N 3.5

300
10
28... 14

CSA rated data

Rated voltage, industrial	V~
Rated current	A
AWG conductor (field wiring)	

LM 3.5

300
10
28... 14

LM1N 3.5 / LM2N 3.5

300
10
28... 14

Application notes

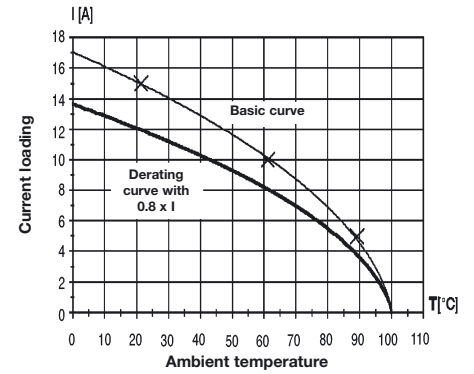
- 1) additional colours on request
- 3) referred to 20°C ambient temperature, rated cross-section and number of poles

Ordering data: page 13

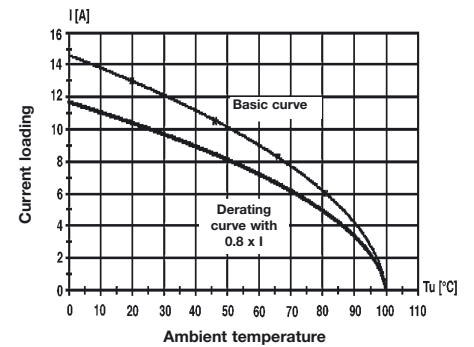
Ordering data: page13-14

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relate only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity is to be determined according to DIN IEC 326 part 3.

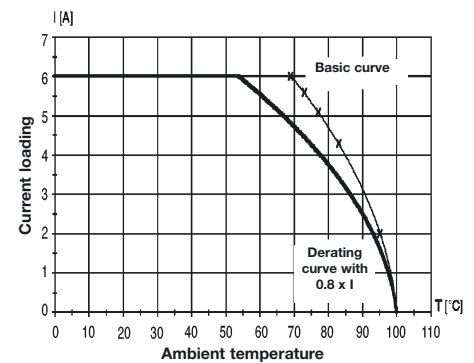
Weidmueller connectors are tested according to the DIN VDE 0627 standard, and are valid for its field of applications. Provided that the connectors are used for the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.



LM 3.5/24/90 3.2 OR with Conductor H07V-K1.5 mm²



LM2N 3.5/12 3.2 OR with Conductor H07V-K1.5 mm²



LM2N 3.5/12 3.2 OR with Conductor H05V-K0.5 mm²

Accessories Selection Matrix

		Marking systems	LED holders and marker carrier	Fuse and disconnect elements	Fixing blocks	Cross-connections	Adaptor plates	Fixing plates
Rated cross-section	PCB Terminal Accessories	Page 40-42	Page 43	Page 44	Page 45-46	Page 45	Page 46	Page 46
1.5 mm ²	PM 5.08	KSW 4, KSW 2.5						
	MK 8	KSW 2.5						
	MK 7.5	KSW 2.5				LPA QB		
	LM 3.5 all versions	KSW 4, KSW 2.5						
	LM 5.00 all versions	KSW 4, KSW 2.5						
	LM 5.08 all versions	KSW 4, KSW 2.5						
	TOP1.5GS all versions	KSW 2.5			TOP1.5GS BB			
	LMZF 5.08 all versions	KSW 2.5						
2.5 mm ²	LP 5.08/90	DEK 5	LPA FA, LPA FA BZ, LPA BZ	LPA SI, LPA TR	LP BB	LPA QB	LPZP/90	LPHP
	LP 5.00/90	DEK 5			LP BB		LPZP/90	
	LP 7.50/90	DEK 5			LP BB		LPZP/90	
	LP 7.62/90	DEK 5			LP BB		LPZP/90	LPHP
	LP 10.00/90	DEK 5			LP BB		LPZP/90	
	LP 15.00/90	DEK 5			LP BB		LPZP/90	
	LP2N 5.08	DEK 5	LPA BZ		LP BB	LPA QB	LPZP1N LPZP2.54/90	
	LP2N Pitch 5.00, 7.50, 7.62	DEK 5			LP BB		LPZP1N LPZP2.54/90	
	LP2H 5.08	DEK 5	LPA BZ			LPA QB		
	LP2HR 5.08	DEK 5	LPA BZ			LPA QB		
	LP3R 5.08	DEK 5	LPA BZ		LP BB	LPA QB		
	LPP 5.08/90	DEK 5	LPA FA, LPABZ LPA FA BZ	LPA SI, LPA TR	LP BB	LPA QB	LPZP/90	
	LPP/90 Pitch 5.00, 7.50, 7.62	DEK 5	LPA BZ		LP BB		LPZP/90	
	LP1N 5.08	DEK 5	LPA BZ			LPA QB	LPZP1N	
	LP1N 5.00	DEK 5						
	LP1H 5.08	DEK 5	LPA BZ			LPA QB		
	LP/135 all pitches	DEK 5				LPA QB ¹⁾	LPZP/135	
	LP/180 all pitches	DEK 5			LP BB	LPA QB ¹⁾	LPZP/90	
	LPZF 5.08/180	KSW 2.5						
	LPTR 5.08/1/90	DEK 5			LP BB		LPZP/90	
4.0 mm ²	LL 9.5	KSW4, KSW 2.5						
	TOP4GS/90 all pitches	S10						
	TOP4GS/180 all pitches	S10						
10.0 mm ²	LU/90 all pitches	KSW4, KSW2.5, DEK 5						
	GSE 10	KSW4, KSW2.5, DEK 5						
25.0 mm ²	LX 15.00	KSW4, KSW2.5, DEK 5						
Accessories		LPA FA BZ, LPA BZ	WS 10/5 a. WS 12/5					
	LPA SI	DEK 5						
	LPA TR	DEK 5, WS 3						

1) only pitch 5.08 mm

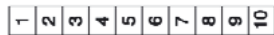
Dekafix System DEK 5



Horizontal printing



Strip mounting



Vertical printing



Individual tag mounting

The Dekafix marking system can be used with the **LX 15.00**, **LU 10.16** and **GSE 10** as well as with the **System LP** (with the exception of LPZF and its accessories).

Dekafix is supplied in packs of 10 cards with 50 tags per card. The standard colour is white with black text.

Technical data

Material	Polyamide
Temperature range	-40°C ... +100°C
Flammability class	UL 94 V-2
Components	silicone-free halogens below limit of detection
Assembly	Strip or individual tag assembly depending on stackability of the terminals
Print	Standard or custom, print colour black
Smudge resistance	Smudge resistant to DIN IEC 50
Custom print	From customer's list or data exchange via disk or modem
Colour	Available in colours of the international resistance code
max. digits DEK 5	3 horizontal, 3 vertical up to 2.5 mm type size

Custom print (cat. no. with colour code for ordering !)

Colour	Cat. No.	Colour	Cat. No.	Colour	Cat. No.	Qty. 500
● black	1609810000	● yellow	0490791687	● violet	0490791689	
● brown	1609810000	● green	0490791688	● grey	1609810000	
● red	0490791686	● blue	1609810000	○ white	0490790000	
● orange	1609810000					

Neutral

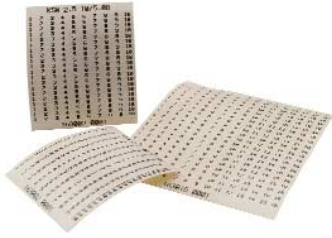
Colour	Cat. No.	Colour	Cat. No.	Colour	Cat. No.	Qty. 500
● black	0473391694	● yellow	1609801687	● violet	0473391689	
● brown	0473391692	● green	0473391688	● grey	0473391691	
● red	1609801686	● blue	0473391693	○ white	0473360000	
● orange	0473391690					

Ordering data

(only horizontal)	Print	Cat. No.
Printing	A	0522761021
individual letters	B	0522761022
	C	0522761023
	D	0522761024
E	E	0522761025
F	F	0522761026
G	G	0522761027
H	H	0522761028
I	I	0522761029
J	J	0522761030
K	K	0522761031
L	L	0522761032
M	M	0522761033
N	N	0522761034
O	O	0522761035
P	P	0522761036
Q	Q	0522761037
R	R	0522761038
S	S	0522761039
T	T	0522761040
U	U	0522761041
V	V	0522761042
W	W	0522761043
X	X	0522761044
Y	Y	0522761045
Z	Z	0522761046

	Print	Cat. No. horizontal	Cat. No. vertical
Printing 50 digits in series	1 ... 50	0473460001	0473560001
	51 ... 100	0473460051	0473560051
	to	The last 3 digits of the Cat No. are the first printed number	
	951 ... 999	0473460951	0473560951
Printing 10 digits in series	1 ... 10	0523060001	0460660001
	11 ... 20	0523060011	0460660011
	bis	Die letzten 3 Zahlen der Best.-Nr zeigen die erste Druckzahl	
	91 ... 100	0523060091	0460660091
Beschriftung einzelne Zahlen	1	0522660001	-
	2	0522660002	-
	to	The last 3 digits of the Cat No. are the first printed number	
	200	0522660200	-
Printing various symbols	L1, L2, L3, N, PE	0354361187	-
Printing individual symbols	Plus symbol +	0576261198	-
	Minus symbol -	0576261199	-
	PE	-	0157261187
	L1	0522361075	-
	L2	0522361076	-
	L3	0522361077	-
	Earth symbol (ground)	0576261202	0157261202
	Earth symbol in circle	0576261203	0157261203
	Alternating current ~	0576261215	-
Blank, white (Card)	-	1609801044	1609801044
Custom print (please state print and direction with order)		0490760000	0490760000
Coloured Dekafix blank (please state colour with order)		0473390000	0473390000
Coloured Dekafix printed = custom print (please state colour and print with order)		0490790000	0490790000

Marking Strips KSW



The white self-adhesive KSW marking strips are available in 2 widths:

KSW 4

Width (mm)	Pitch	also suitable for
4.0	3.50 mm	–
	5.08 mm	5.00 mm
	7.50 mm	7.62 mm
	10.16 mm	

KSW 4 can be used with the systems **PM 5.08**, **LM 3.5**, **LM 5.00/5.08**, **LU 10.16**, **LL 9.5** and **LX 15.00**.

KSW 2.5

Width (mm)	Pitch	also suitable for
2.5	3.50 mm	–
	5.08 mm	5.00 mm
	7.50 mm	–

KSW 2.5 can be used with **MK 8**, **MK 7.5**, **LPZF 5.08**, **System LMZF 5.08**, **TOP 1.5GS**, **LX 15.00**, and of course everywhere where KSW 4 can be used.

Example for TOP 1.5 GS with KSW 2.5



Ordering data

Pitch mm	Type	Print	Strips per sheet	Cat. No.
5.00	KSW 2.5 16/5.00	1...16	20	1630070001
5.00	KSW 2.5 20/5.00	1...20	20	1630080001
5.00	KSW 2.5 20/5.00	21...40	20	1630080021
5.00	KSW 2.5 20/5.00	41...60	20	1630080041
5.00	KSW 2.5 20/5.00	61...80	20	1630080061
5.00	KSW 4 12/5.00	1...12	20	1630130001
5.00	KSW 4 12/5.00	13...24	20	1630130013
5.00	KSW 4 18/5.00	1...18	20	1630170001
5.08	KSW 2.5 10/5.08	1...10	20	1630020001
5.08	KSW 2.5 10/5.08	11...20	20	1630020011
5.08	KSW 2.5 15/5.08	1...150	20	1630050001
5.08	KSW 2.5 15/5.08	1...15	20	1630060001
5.08	KSW 2.5 15/5.08	151...300	20	1630050151
5.08	KSW 2.5 15/5.08	301...450	20	1630050301
5.08	KSW 2.5 8/5.08	1...8	20	1630100001
5.08	KSW 2.5 8/5.08	9...16	20	1630100009
5.08	KSW 2.5 8/5.08	A...H	20	1630101021
5.08	KSW 4 16/5.08	1...16	20	1630160001
5.08	KSW 4 16/5.08	17...32	20	1630160017
5.08	KSW 4 16/5.08	33...48	20	1630160033
5.08	KSW 4 16/5.08	49...64	20	1630160049
5.08	KSW 4 16/5.08	65...80	20	1630160065
5.08	KSW 4 16/5.08	81...96	20	1630160081
5.08	KSW 4 24/5.08	1...24	20	1630180001
5.08	KSW 4 8/5.08	1...8	20	1630200001
5.08	KSW 4 16/5.08	25...32	20	1630200025
5.08	KSW 4 16/5.08	33...40	20	1630200033
5.08	KSW 4 16/5.08	41...48	20	1630200041
7.50	KSW 2.5 10/7.50	1...100	20	1630030001
7.50	KSW 2.5 10/7.50	1...10	20	1630040001
7.50	KSW 2.5 10/7.50	101...200	20	1630030101
7.50	KSW 2.5 10/7.50	201...300	20	1630030201
7.50	KSW 2.5 10/7.50	301...400	20	1630030301
7.50	KSW 2.5 10/7.50	401...500	20	1630030401
7.50	KSW 4 12/7.50	1...12	20	1630140001
7.50	KSW 4 12/7.50	13...24	20	1630140013
7.50	KSW 4 12/7.50	25...36	20	1630140025
7.50	KSW 4 12/7.50	37...48	20	1630140037
7.50	KSW 4 12/7.50	49...60	20	1630140049
7.62	KSW 4 12/7.62	1...12	20	1652270001
7.62	KSW 4 12/7.62	13...24	20	1652270013
9.52				on request
10.16	KSW 2.5 4/10.16	1...4	20	1630090001
15.00				on request

Technical data KSW

Material	Polyester with smooth surface
Adhesive	On acrylate basis
Adhesive strength (strip width 25 mm)	DIN 51221 on steel: 19N, polypropylene: 12 N, polyethylene: 10 N
Temperature range	-40°C to +150°C
min. temperature for adhesion	+ 4°C
Flammability	Self-extinguishing within 15 seconds; does not drip

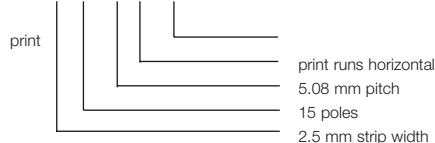
Direct printing

Apart from the standard print, we can also offer custom printing for all pitches.

Pitch mm	Type	Length mm	Print	Cat. No.
all	KSW 2.5	<50	custom print	1629900000
all	KSW 2.5	<100	custom print	1629920000
all	KSW 2.5	<150	custom print	1629940000
all	KSW 4	<50	custom print	1629910000
all	KSW 4	<100	custom print	1629930000
all	KSW 4	<150	custom print	1629950000
all	KSW 2.5	<50	neutral	1629960000
all	KSW 2.5	<100	neutral	1629980000
all	KSW 2.5	<150	neutral	1630000000
all	KSW 4	<50	neutral	1629970000
all	KSW 4	<100	neutral	1629990000
all	KSW 4	<150	neutral	1630010000

Ordering example

Cat. No. 163006 001
KSW 2.5 15/5.08 W 1...15



STI marking pen



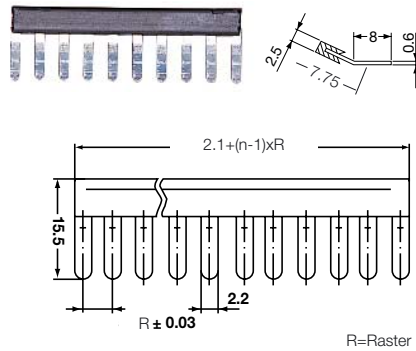
permanent marker, black,
waterproof, smudge resistant

Type	Cat. No.
STI-S fine	0508401694
STI-F thick	1632480000

Screwdriver



Cross-Connections



The cross-connection combs permit post-assembly potential distribution across several poles and eliminates the need for time-consuming bridging. The use of cross-connection combs reduces the possible cable size to the next lowest wire gauge. Cross-connections are available for various pitches and poles. Pole numbers and pitches not available can be made directly by the customer by snipping off excess cross-connections from the comb using a suitable tool.

Fixing Block for TOP's



For modular assembly of the TOP1.5GS PCB terminals there is a fixing set available for the PCB. This set consists of a plastic block and the appropriate self-tapping screw (2.9 x 19 mm). It can be used with both the 90° and the 180° versions.

Ordering data

Type	Clamping screw	Product	Cat. No.
SDI	M2	LM3.5	9008370000
0.4 x 2.5 x 75			
SD	M2.5	LM 5.0x	9008330000
0.6 x 3.5 x 100			
		TOP1.5GS	
		LMT 5.08	
		PM 5.08	
		MK 8	
		MK 7.5	
SD	M3	System LP	9008400000
0.8 x 4.0 x 100			
		TOP4GS	
SDI	M4	LU 10.16	9008420000
1.2 x 6.5 x 150			
		GSE 10	
SD	M5	LX 15.00	9008350000
1.0 x 5.5 x 125			

Ordering data

Poles	Pitch	Type	Cat. No.	Qty.
2	5.08 mm	LPA QB2	1472200000	50
3	5.08 mm	LPA QB3	1472300000	50
4	5.08 mm	LPA QB4	1472400000	50
10	5.08 mm	LPA QB10	1472500000	20
17	5.08 mm	LPA QB17	1584770000	20
24	5.08 mm	LPA QB24	1472600000	20

Ordering data

Type	Cat. No.	Qty.
TOP1.5GS BB OR	1539860000	20

Insertion Tool

Spring displacement tool for tension clamp PCB terminals



SD 0.6 x 3.5 x 100 (DIN 5264-A)

To displace the tension clamp you do not need a special tool. The channel on the pcb terminal will take a standard screwdriver 0.6 x 3.5 x 100 according to DIN 5264-A with a flat blade.

Bestelldaten

Type	can be used for	Cat. No.	Qty.
SD 0.6 x 3.5 x 100	all LMZF 5.08 and LPZF 5.08	9008330000	10

Ferrules / Tools

Weidmueller supplies a comprehensive range of ferrules, including for example twin ferrules for attaching two wires to one cable entry.

For more information also ask for our sectional catalogue "Tools" (cat. no. 5629030000), or consult your nearest Weidmueller Sales Engineer or Representative. They will be only too pleased to assist.