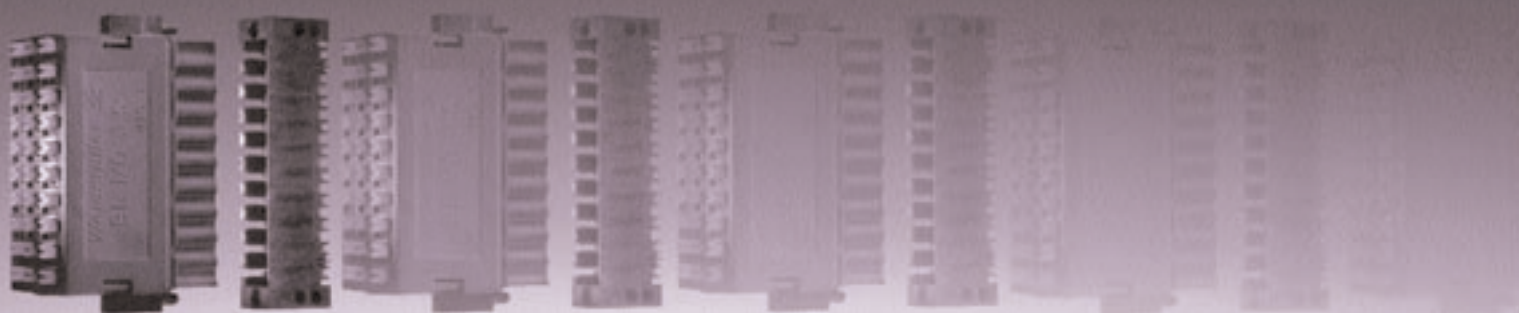


PCB-COMPONENTS PCB-COMPONENTS



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

CATALOGUE SECTION

LU 10.16

When good enough just isn't good enough

Weidmüller 

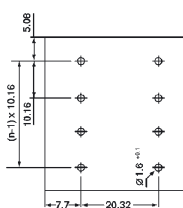
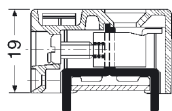
Rated cross-section ≤ 10.0 mm²



GSE 10/180



with
test point



Technical Data		VDE	UL	CSA
Rated voltage	V	400*	300	300
Rated current	A	59	40	40
Clamping range max.	mm ² /AWG	10.0	8	8

*Overvoltage category III / Pollution severity 3

Additional technical data see page 64

Solder pin length 4.5 mm

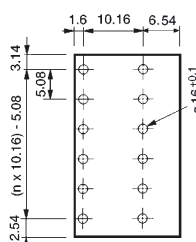
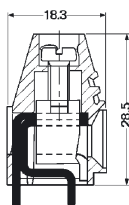
Colour

Poles	Type	Cat. No.	Qty.
1	GSE 10/1	0478700000	50
3	GSE 10/3	0478900000	20
4	GSE 10/4	1610220000	20

LU 10.16/90



4 solder
pins
per pole



Technical Data		VDE	UL	CSA
Rated voltage	V	630*	300	300
Rated current	A	57	65	65
Clamping range max.	mm ² /AWG	16.0	6	6

*Overvoltage category III / Pollution severity 3

Additional technical data see page 64

Solder pin length 3.2 mm 4.5 mm

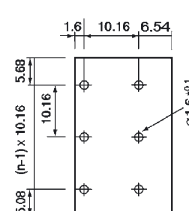
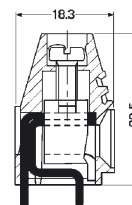
Colour

Poles	Type	Cat. No.	Cat. No.	Qty.
2	LU 10.16/2/90	1635920000	1636170000	20
3	LU 10.16/3/90	1635930000	1636180000	20

LU 10.16/90



2 solder
pins
per pole



Technical Data		VDE	UL	CSA
Rated voltage	V	630*	300	300
Rated current	A	57	65	65
Clamping range max.	mm ² /AWG	16.0	6	6

*Overvoltage category III / Pollution severity 3

Additional technical data see page 64

Solder pin length 4.5 mm

Colour

Poles	Type	Cat. No.	Qty.
2	LU 10.16/2/90 2STI	1648310000	20
3	LU 10.16/3/90 2STI	1648300000	20

Rated cross-section
≤ 10.0 mm²

Accessories	Page
Marking	40, 42
Fixing	-
Miscellaneous	45

Accessories	Page
Marking	40, 42
Fixing	-
Miscellaneous	45

Accessories	Page
Marking	40, 42
Fixing	-
Miscellaneous	45

Materials		GSE 10		LU 10.16/4 pins per pole		LU 10.16/2 pins per pole	
Insulation material		PA 66		PA 66/6 (Wemid)		PA 66/6 (Wemid)	
Colour ¹⁾		grey		grey		grey	
Temperature range	°C	-20... +100		-20... +120		-20... +120	
Flammability class.	UL94	V-2		V-0		V-0	
Contact base material		E-Cu		E-Cu		E-Cu	
Contact plating		tin-plated		tin-plated		tin-plated	
System characteristic values							
Pitch	mm	10.16		10.16		10.16	
Connection method		screw clamp connection		screw clamp connection		screw clamp connection	
Solder pin length	mm	4.5		3.2/4.5		3.2/4.5	
PCB hole diameter	Ømm	1.6 ^{+0.1}		1.6 ^{+0.1}		1.6 ^{+0.1}	
Insulation stripping length	mm	10.0		12.0		12.0	
Clamping screw	M	4		4		4	
Insulation resistance	MΩ	≥ 10 ³		≥ 10 ³		≥ 10 ³	
Through resistance	mΩ	≤ 0.2		≤ 0.5		≤ 0.5	
Torque	Nm	1.2... 1.5		1.2... 1.5		1.2... 1.5	
Conductor size							
Clamping range	mm ²	0.33... 10.0		0.33... 16.0		0.33... 16.0	
"e" solid H05(07) V-U	mm ²	0.5... 10.0		0.5... 10.0		0.5... 10.0	
multi-wire H07 V-R	mm ²	6.0... 10.0		6.0... 16.0		6.0... 16.0	
"f" flexible H05(07) V-K	mm ²	0.5... 10.0		0.5... 16.0		0.5... 16.0	
"f" with ferrule to DIN 46228/1	mm ²	0.75... 4.0		2.5... 10.0		2.5... 10.0	
... with plastic collar to DIN 46228/4	mm ²	0.75... 4.0		2.5... 10.0		2.5... 10.0	
Gauge to EN 60999	mm (size)	4.3 x 4.0 (A5)		Ø 5.3 (B6)		Ø 5.3 (B6)	
VDE 0110 1.89 rated data							
Rated cross-section to EN 60999	mm ²	10.0		16.0		16.0	
Rated current ³⁾	A	59		57		57	
Overvoltage category / Pollution severity		III/3	III/2	II/2	III/3	III/2	II/2
Rated voltage	V	400	690	1000	250	250	500
Impulse voltage	kV	6.0	6.0	6.0	4.0	4.0	4.0
UL rated data							
Rated voltage, industrial	V~	300		300		300	
Rated current	A	40		65		65	
AWG conductor (field wiring)		22... 8		22... 6		22... 6	
CSA rated data							
Rated voltage, industrial	V~	300		300		300	
Rated current	A	40		65		60	
AWG conductor (field wiring)		22... 8		22... 6		22... 6	
Application notes							
1) additional colours on request		Ordering data: page 35		Ordering data: page 35		Ordering data: page 35	
3) referred to 20°C ambient temperature, rated cross-section and number of poles							

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.

Accessories Selection Matrix

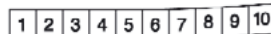
		Marking systems	LED holders and marker carrier	Fuse and disconnect elements	Fixing blocks	Cross-connections	Adaptor plates	Fixing plates
Rated cross-section	PCB Terminal Accessories	Page 40-42	Page 43	Page 44	Page 45-46	Page 45	Page 46	Page 46
1.5 mm²	PM 5.08	KSW 4, KSW 2.5						
	MK 8	KSW 2.5						
	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 mm²	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 mm²	LL 9.5	KSW4, KSW 2.5						
	TOP4GS/90 all pitches	S10						
	TOP4GS/180 all pitches	S10						
10.0 mm²	LU/90 all pitches	KSW4, KSW2.5, DEK 5						
	GSE 10	KSW4, KSW2.5, DEK 5						
25.0 mm²	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	0522761025
	F	0522761026
	G	0522761027
	H	0522761028
	I	0522761029
	J	0522761030
	K	0522761031
	L	0522761032
	M	0522761033
	N	0522761034
	O	0522761035
	P	0522761036
	Q	0522761037
	R	0522761038
	S	0522761039
	T	0522761040
	U	0522761041
	V	0522761042
	W	0522761043
	X	0522761044
	Y	0522761045
	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

System WS 3



Each pack of WS 3 marker tags contains 20 stars with 10 tags each.

Ordering data

	Print	Cat. No.
individual letters	A	1055761021
	B	1055761022
	C	1055761023
	D	1055761024
	E	1055761025
	F	1055761026
	G	1055761027
	H	1055761028
	I	1055761029
	J	1055761030
	K	1055761031
	L	1055761032
	M	1055761033
	N	1055761034
	O	1055761035
	P	1055761036
	Q	1055761037
	R	1055761038
	S	1055761039
	T	1055761040
	U	1055761041
	V	1055761042
	W	1055761043
	X	1055761044
	Y	1055761045
	Z	1055761046
Neutral		1055560000
Custom print		on request
consecutive numbers	0 ... 9	1055860000
individual numbers	1	1055760001
	2	1055760002
	3	1055760003
	4	1055760004
	5	1055760005
	6	1055760006
	7	1055760007
	8	1055760008
	9	1055760009
	0	1055761000

WS 10/5 and WS 12/5 cards

WS cards neutral

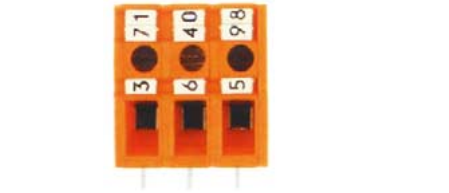
The white WS 10/5 and WS 12/5 cards can be used everywhere where DEK 5 is used - but giving increased marking requirements.

They are also used to mark our LPA FA BZ LED holders and our LPA BZ marker carriers.

Ordering data

[illegible]

System S 10

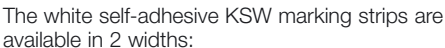


The S10 marking system can be used with **TOP4GS**.

S 10 is supplied in packs of 100 strips with 10 tags per strip.

The print is always horizontal.

Marking Strips KSW



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, TOP1.5GS, 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	1629560000
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

print

print runs horizontal
5.08 mm pitch
15 poles
2.5 mm strip width

STI marking pen



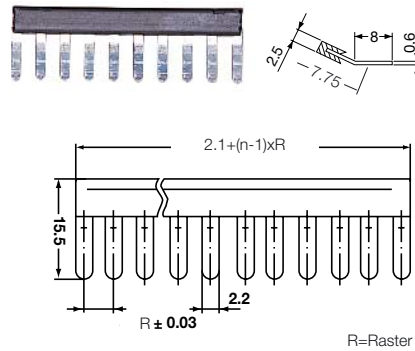
permanent marker, black,
waterproof, smudge resistant

[illegible]

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			
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

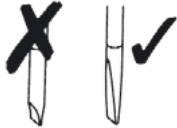
Poles	Pitch	Type	Cat. No.	Qty.
2	5.08 mm	LPA QB2	1472200000	50
3	5.08 mm	LPA QB3	1472300000	50
4	5.08 mm	LPA QB4	1472400000	50
10	5.08 mm	LPA QB10	1472500000	20
17	5.08 mm	LPA QB17	1584770000	20
24	5.08 mm	LPA QB24	1472600000	20

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.