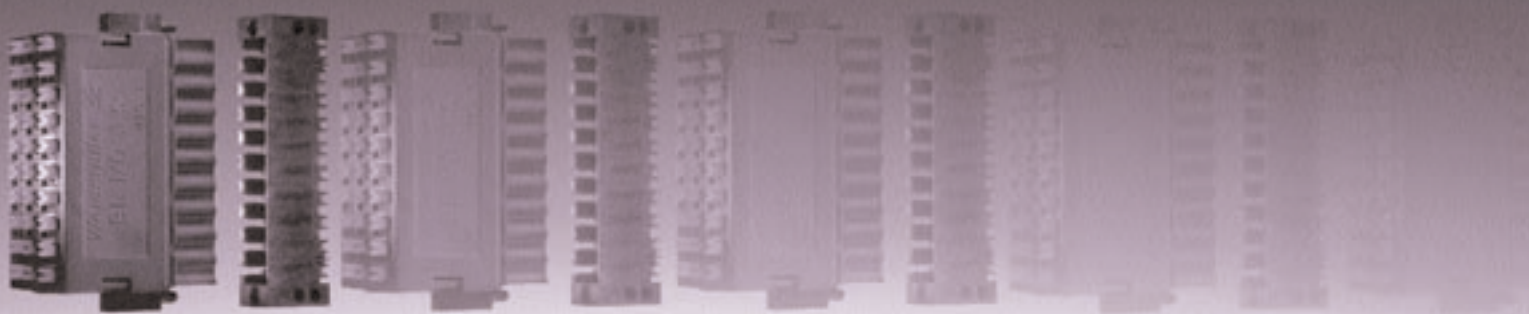


PCB-COMPONENTS
PCB-COMPONENTS



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

CATALOGUE EXTRACT

SL-SMT 5.08

When good enough just isn't good enough

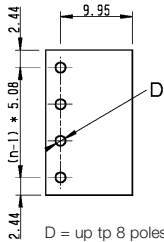
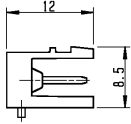
Weidmüller 

Omnimate Range - Pitch 5.08 mm



Pin headers SL-SMT 5.08/90

new



D = up to 8 poles $\varnothing 1.4^{+0.1}$
from 9 poles $\varnothing 1.5^{+0.1}$

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Solder pin length **1.5 mm**

Tape-on-Reel

Colour

Tape width **56 mm**

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/90	1774764001	250
3	SL-SMT 5.08/3/90	1774774001	250
4	SL-SMT 5.08/4/90	1774784001	250
5	SL-SMT 5.08/5/90	1774794001	250
6	SL-SMT 5.08/6/90	1774804001	250
7	SL-SMT 5.08/7/90	1774814001	250
8	SL-SMT 5.08/8/90	1774824001	250

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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Solder pin length **1.5 mm**

Tray

Colour

Poles	Type	Cat. No.	Qty.
-	-	-	-
-	-	-	-
4	SL-SMT 5.08/4/90	1774783001	66
5	SL-SMT 5.08/5/90	1774793001	54
6	SL-SMT 5.08/6/90	1774803001	48
7	SL-SMT 5.08/7/90	1774813001	42
8	SL-SMT 5.08/8/90	1774823001	36
9	SL-SMT 5.08/9/90	1774833001	30
10	SL-SMT 5.08/10/90	1774843001	30
11	SL-SMT 5.08/11/90	1774853001	24
12	SL-SMT 5.08/12/90	1774863001	24
13	SL-SMT 5.08/13/90	1774873001	24
14	SL-SMT 5.08/14/90	1774883001	18
15	SL-SMT 5.08/15/90	1774893001	18
16	SL-SMT 5.08/16/90	1774903001	18
17	SL-SMT 5.08/17/90	1774913001	18
18	SL-SMT 5.08/18/90	1774923001	18
19	SL-SMT 5.08/19/90	1774933001	12
20	SL-SMT 5.08/20/90	1774943001	12
21	SL-SMT 5.08/21/90	1774953001	12
22	SL-SMT 5.08/22/90	1774963001	12
23	SL-SMT 5.08/23/90	1774973001	12
24	SL-SMT 5.08/24/90	1774983001	12

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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Solder pin length **1.5 mm**

Standard Box

Colour

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/90	1774762001	100
3	SL-SMT 5.08/3/90	1774772001	100
4	SL-SMT 5.08/4/90	1774782001	100
5	SL-SMT 5.08/5/90	1774792001	50
6	SL-SMT 5.08/6/90	1774802001	50
7	SL-SMT 5.08/7/90	1774812001	50
8	SL-SMT 5.08/8/90	1774822001	50
9	SL-SMT 5.08/9/90	1774832001	50
10	SL-SMT 5.08/10/90	1774842001	50
11	SL-SMT 5.08/11/90	1774852001	50
12	SL-SMT 5.08/12/90	1774862001	50
13	SL-SMT 5.08/13/90	1774872001	50
14	SL-SMT 5.08/14/90	1774882001	50
15	SL-SMT 5.08/15/90	1774892001	50
16	SL-SMT 5.08/16/90	1774902001	50
17	SL-SMT 5.08/17/90	1774912001	20
18	SL-SMT 5.08/18/90	1774922001	20
19	SL-SMT 5.08/19/90	1774932001	20
20	SL-SMT 5.08/20/90	1774942001	20
21	SL-SMT 5.08/21/90	1774952001	20
22	SL-SMT 5.08/22/90	1774962001	20
23	SL-SMT 5.08/23/90	1774972001	20
24	SL-SMT 5.08/24/90	1774982001	20

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

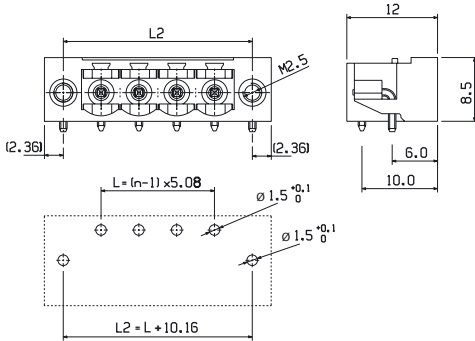
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Omnimate Range - Pitch 5.08 mm



Pin headers SL-SMT 5.08/90LF

new



Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Solder pin length **1.5 mm**
Tape-on-Reel
Colour
Tape width **56 mm**

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/90LF	1775234001	250
3	SL-SMT 5.08/3/90LF	1775244001	250
4	SL-SMT 5.08/4/90LF	1775254001	250
5	SL-SMT 5.08/5/90LF	1775264001	250
6	SL-SMT 5.08/6/90LF	1775274001	250

Solder pin length **1.5 mm**
Tray
Colour

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/90LF	1775233001	66
3	SL-SMT 5.08/3/90LF	1775243001	54
4	SL-SMT 5.08/4/90LF	1775253001	48
5	SL-SMT 5.08/5/90LF	1775263001	42
6	SL-SMT 5.08/6/90LF	1775273001	36
7	SL-SMT 5.08/7/90LF	1775283001	30
8	SL-SMT 5.08/8/90LF	1775293001	30
9	SL-SMT 5.08/9/90LF	1775303001	24
10	SL-SMT 5.08/10/90LF	1775313001	24
11	SL-SMT 5.08/11/90LF	1775323001	24
12	SL-SMT 5.08/12/90LF	1775333001	18
13	SL-SMT 5.08/13/90LF	1775343001	18
14	SL-SMT 5.08/14/90LF	1775353001	18
15	SL-SMT 5.08/15/90LF	1775363001	18
16	SL-SMT 5.08/16/90LF	1775373001	12
17	SL-SMT 5.08/17/90LF	1775383001	12
18	SL-SMT 5.08/18/90LF	1775393001	12
19	SL-SMT 5.08/19/90LF	1775403001	12
20	SL-SMT 5.08/20/90LF	1775413001	12
21	SL-SMT 5.08/21/90LF	1775423001	12
22	SL-SMT 5.08/22/90LF	1775433001	12
23	SL-SMT 5.08/23/90LF	1775443001	12
24	SL-SMT 5.08/24/90LF	1775453001	12

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

Solder pin length **1.5 mm**
Standard Box
Colour

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/90LF	1775232001	100
3	SL-SMT 5.08/3/90LF	1775242001	100
4	SL-SMT 5.08/4/90LF	1775252001	100
5	SL-SMT 5.08/5/90LF	1775262001	50
6	SL-SMT 5.08/6/90LF	1775272001	50
7	SL-SMT 5.08/7/90LF	1775282001	50
8	SL-SMT 5.08/8/90LF	1775292001	50
9	SL-SMT 5.08/9/90LF	1775302001	50
10	SL-SMT 5.08/10/90LF	1775312001	50
11	SL-SMT 5.08/11/90LF	1775322001	50
12	SL-SMT 5.08/12/90LF	1775332001	50
13	SL-SMT 5.08/13/90LF	1775342001	50
14	SL-SMT 5.08/14/90LF	1775352001	50
15	SL-SMT 5.08/15/90LF	1775362001	50
16	SL-SMT 5.08/16/90LF	1775372001	50
17	SL-SMT 5.08/17/90LF	1775382001	20
18	SL-SMT 5.08/18/90LF	1775392001	20
19	SL-SMT 5.08/19/90LF	1775402001	20
20	SL-SMT 5.08/20/90LF	1775412001	20
21	SL-SMT 5.08/21/90LF	1775422001	20
22	SL-SMT 5.08/22/90LF	1775432001	20
23	SL-SMT 5.08/23/90LF	1775442001	20
24	SL-SMT 5.08/24/90LF	1775452001	20

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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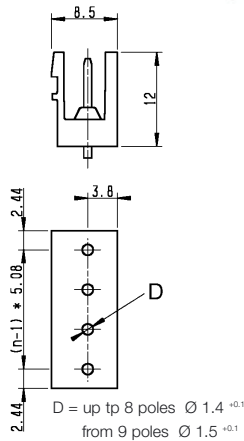
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Fixing	integrated in product
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Miscellaneous	205



Pin headers SL-SMT 5.08/180

new



Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Solder pin length **1.5 mm**
Tape-on-Reel
Colour
Tape width **56 mm**

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/180	1775524001	200
3	SL-SMT 5.08/3/180	1775574001	200
4	SL-SMT 5.08/4/180	1775594001	200
5	SL-SMT 5.08/5/180	1775634001	200
6	SL-SMT 5.08/6/180	1775644001	200
7	SL-SMT 5.08/7/180	1775654001	200
8	SL-SMT 5.08/8/180	1775664001	200
9	SL-SMT 5.08/9/180	1775673001	30
10	SL-SMT 5.08/10/180	1775683001	30
11	SL-SMT 5.08/11/180	1775693001	24
12	SL-SMT 5.08/12/180	1775703001	24
13	SL-SMT 5.08/13/180	1775713001	24
14	SL-SMT 5.08/14/180	1775723001	18
15	SL-SMT 5.08/15/180	1775733001	18
16	SL-SMT 5.08/16/180	1775743001	18
17	SL-SMT 5.08/17/180	1775753001	18
18	SL-SMT 5.08/18/180	1775763001	12
19	SL-SMT 5.08/19/180	1775773001	12
20	SL-SMT 5.08/20/180	1775783001	12
21	SL-SMT 5.08/21/180	1775793001	12
22	SL-SMT 5.08/22/180	1775803001	12
23	SL-SMT 5.08/23/180	1775813001	12
24	SL-SMT 5.08/24/180	1775823001	12

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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Solder pin length **1.5 mm**
Tray
Colour

Poles	Type	Cat. No.	Qty.
-	-	-	-
4	SL-SMT 5.08/4/180	1775593001	66
5	SL-SMT 5.08/5/180	1775633001	54
6	SL-SMT 5.08/6/180	1775643001	48
7	SL-SMT 5.08/7/180	1775653001	42
8	SL-SMT 5.08/8/180	1775663001	36
9	SL-SMT 5.08/9/180	1775673001	30
10	SL-SMT 5.08/10/180	1775683001	30
11	SL-SMT 5.08/11/180	1775693001	24
12	SL-SMT 5.08/12/180	1775703001	24
13	SL-SMT 5.08/13/180	1775713001	24
14	SL-SMT 5.08/14/180	1775723001	18
15	SL-SMT 5.08/15/180	1775733001	18
16	SL-SMT 5.08/16/180	1775743001	18
17	SL-SMT 5.08/17/180	1775753001	18
18	SL-SMT 5.08/18/180	1775763001	12
19	SL-SMT 5.08/19/180	1775773001	12
20	SL-SMT 5.08/20/180	1775783001	12
21	SL-SMT 5.08/21/180	1775793001	12
22	SL-SMT 5.08/22/180	1775803001	12
23	SL-SMT 5.08/23/180	1775813001	12
24	SL-SMT 5.08/24/180	1775823001	12

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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Solder pin length **1.5 mm**
Standard Box
Colour

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/180	1775522001	100
3	SL-SMT 5.08/3/180	1775572001	100
4	SL-SMT 5.08/4/180	1775592001	100
5	SL-SMT 5.08/5/180	1775632001	50
6	SL-SMT 5.08/6/180	1775642001	50
7	SL-SMT 5.08/7/180	1775652001	50
8	SL-SMT 5.08/8/180	1775662001	50
9	SL-SMT 5.08/9/180	1775672001	50
10	SL-SMT 5.08/10/180	1775682001	50
11	SL-SMT 5.08/11/180	1775692001	50
12	SL-SMT 5.08/12/180	1775702001	50
13	SL-SMT 5.08/13/180	1775712001	50
14	SL-SMT 5.08/14/180	1775722001	50
15	SL-SMT 5.08/15/180	1775732001	50
16	SL-SMT 5.08/16/180	1775742001	50
17	SL-SMT 5.08/17/180	1775752001	20
18	SL-SMT 5.08/18/180	1775762001	20
19	SL-SMT 5.08/19/180	1775772001	20
20	SL-SMT 5.08/20/180	1775782001	20
21	SL-SMT 5.08/21/180	1775792001	20
22	SL-SMT 5.08/22/180	1775802001	20
23	SL-SMT 5.08/23/180	1775812001	20
24	SL-SMT 5.08/24/180	1775822001	20

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

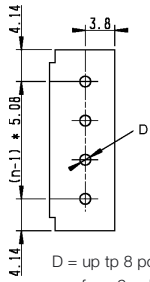
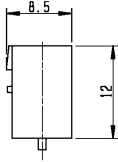
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Omnimate Range - Pitch 5.08 mm



Pin headers SL-SMT 5.08/180G

new



D = up to 8 poles $\varnothing 1.4^{+0.1}$
from 9 poles $\varnothing 1.5^{+0.1}$



Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Technical Data	VDE	UL	CSA
Rated voltage	V	250*	300 300
Rated current	A	15	10 10

*Overvoltage category III / Pollution severity 3
Additional technical data see page 215

Solder pin length **1.5 mm**
Tape-on-Reel
Colour
Tape width **56 mm**

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/180G	1775924001	200
3	SL-SMT 5.08/3/180G	1775934001	200
4	SL-SMT 5.08/4/180G	1775944001	200
5	SL-SMT 5.08/5/180G	1775954001	200
6	SL-SMT 5.08/6/180G	1775964001	200
7	SL-SMT 5.08/7/180G	1775974001	200
8	SL-SMT 5.08/8/180G	1775984001	200
9	SL-SMT 5.08/9/180G	1775994001	200
10	SL-SMT 5.08/10/180G	1776004001	200
11	SL-SMT 5.08/11/180G	1776014001	200
12	SL-SMT 5.08/12/180G	1776024001	200
13	SL-SMT 5.08/13/180G	1776034001	200
14	SL-SMT 5.08/14/180G	1776044001	200
15	SL-SMT 5.08/15/180G	1776054001	200
16	SL-SMT 5.08/16/180G	1776064001	200
17	SL-SMT 5.08/17/180G	1776074001	200
18	SL-SMT 5.08/18/180G	1776084001	200
19	SL-SMT 5.08/19/180G	1776094001	200
20	SL-SMT 5.08/20/180G	1776104001	200
21	SL-SMT 5.08/21/180G	1776114001	200
22	SL-SMT 5.08/22/180G	1776124001	200
23	SL-SMT 5.08/23/180G	1776134001	200
24	SL-SMT 5.08/24/180G	1776144001	200

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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Solder pin length **1.5 mm**
Tray
Colour

Poles	Type	Cat. No.	Qty.
-	-	-	-
4	SL-SMT 5.08/4/180G	1775943001	66
5	SL-SMT 5.08/5/180G	1775953001	54
6	SL-SMT 5.08/6/180G	1775963001	48
7	SL-SMT 5.08/7/180G	1775973001	42
8	SL-SMT 5.08/8/180G	1775983001	36
9	SL-SMT 5.08/9/180G	1775993001	30
10	SL-SMT 5.08/10/180G	1776003001	30
11	SL-SMT 5.08/11/180G	1776013001	24
12	SL-SMT 5.08/12/180G	1776023001	24
13	SL-SMT 5.08/13/180G	1776033001	24
14	SL-SMT 5.08/14/180G	1776043001	18
15	SL-SMT 5.08/15/180G	1776053001	18
16	SL-SMT 5.08/16/180G	1776063001	18
17	SL-SMT 5.08/17/180G	1776073001	18
18	SL-SMT 5.08/18/180G	1776083001	12
19	SL-SMT 5.08/19/180G	1776093001	12
20	SL-SMT 5.08/20/180G	1776103001	12
21	SL-SMT 5.08/21/180G	1776113001	12
22	SL-SMT 5.08/22/180G	1776123001	12
23	SL-SMT 5.08/23/180G	1776133001	12
24	SL-SMT 5.08/24/180G	1776143001	12

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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Solder pin length **1.5 mm**
Standard Box
Colour

Poles	Type	Cat. No.	Qty.
2	SL-SMT 5.08/2/180G	1775922001	100
3	SL-SMT 5.08/3/180G	1775932001	100
4	SL-SMT 5.08/4/180G	1775942001	100
5	SL-SMT 5.08/5/180G	1775952001	50
6	SL-SMT 5.08/6/180G	1775962001	50
7	SL-SMT 5.08/7/180G	1775972001	50
8	SL-SMT 5.08/8/180G	1775982001	50
9	SL-SMT 5.08/9/180G	1775992001	50
10	SL-SMT 5.08/10/180G	1776002001	50
11	SL-SMT 5.08/11/180G	1776012001	50
12	SL-SMT 5.08/12/180G	1776022001	50
13	SL-SMT 5.08/13/180G	1776032001	50
14	SL-SMT 5.08/14/180G	1776042001	50
15	SL-SMT 5.08/15/180G	1776052001	50
16	SL-SMT 5.08/16/180G	1776062001	50
17	SL-SMT 5.08/17/180G	1776072001	20
18	SL-SMT 5.08/18/180G	1776082001	20
19	SL-SMT 5.08/19/180G	1776092001	20
20	SL-SMT 5.08/20/180G	1776102001	20
21	SL-SMT 5.08/21/180G	1776112001	20
22	SL-SMT 5.08/22/180G	1776122001	20
23	SL-SMT 5.08/23/180G	1776132001	20
24	SL-SMT 5.08/24/180G	1776142001	20

For detailed product and application information for SMT see chapter "Other Applications" page 180-188.

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Materials

Insulation material	
Colour	
Temperature range	°C
Operating temperature with BLZ 5.00/5.08	°C
Flammability class	UL94
Contact base material	
Contact plating 2)	

System characteristic values

Pitch	mm
Connection method	
Processing method	
Solder pin length	mm
PCB hole diameter	Ømm
Insulation resistance	MΩ
Through resistance	mΩ
Torque	Nm
Solder heat resistance accord. to EN 61760-1	°C/sec.

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

VDE 0110 4.97 rated data

Rated cross-section	mm ²
Rated current 3)	A

Overvoltage category / Pollution severity

Rated voltage	V
Impulse voltage	kV

UL rated data

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

CSA rated data

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

Application notes

- 1) additional colours on request
- 2) gold-plated contact plating on request
- 3) referred to 20°C ambient temperature, rated cross-section and max. poles in connection with BLZ 5.00 resp. BLZ 5.08
- 16) additional solder pin lengths on request
- 17) see chapter SL-SMT "Design recommendations" on page 180-188
- 18) solder connection for solid and flexible wires up to 2.5 mm² with insulated sleeves, or with 2.8 mm faston-crimps with insulation sleeves according to DIN IEC 760
- 19) from 9 poles on 1.5^{-0.1}

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.

Weidmüller 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.

SL-SMT 5.00/5.08

LCP, halogen-free
black
-
-20...+100
V-0
CuSn
tin-plated

5.00 / 5.08

Through-Hole solder
Reflow solder
1.5 ^{-0.3} 16)
1.4 ^{+0.1} 17) 19)
≥ 10 ⁶
≤ 4.2
-
290/30 (class A)

SLDF 5.08L/F

PBT
orange 1)
-20...+100
-
V-0
CuSn
tin-plated

5.08

solder/push-on tab connect.
-
-
≥ 10 ⁵
≤ 7.5
-
-

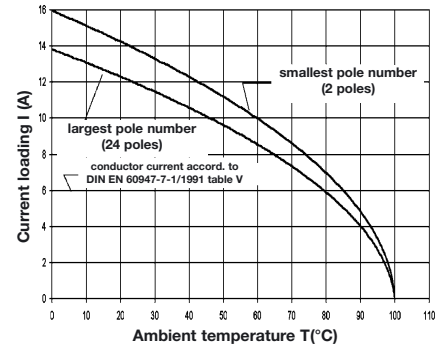
18)

0.13 ...2.5
0.13 ...2.5
0.13 ...2.5
-
-

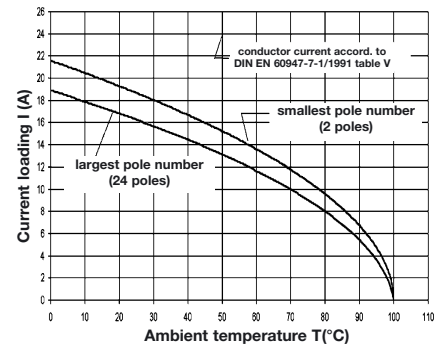
1.0 18)

8 (solder), 12 (push-on tab) 18)
III/3 III/2 II/2
250 400 400
2.0 2.0 2.0

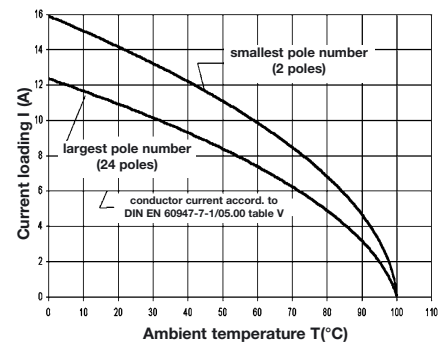
Ordering data: page 179



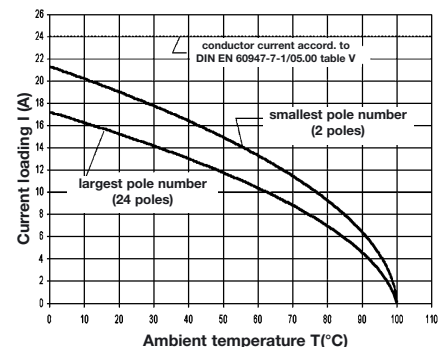
SL-SMT 5.08 with BLZ 5.08
Conductor H05V-K0.5



SL-SMT 5.08 with BLZ 5.08
Conductor H07V-K2.5



SL-SMT 5.00 with BLZ 5.00
Conductor H05V-K0.5



SL-SMT 5.00 with BLZ 5.00
Conductor H07V-K2.5

SL-SMT (Through-Hole-Reflow)



SL-SMT

... reduces costs in the production process



SL-SMT are the high temperature resistant pin headers specially developed to be compatible with reflow production processes. Existing pcb connector headers cannot withstand the high temperatures experienced in reflow soldering - up to 260 °C. The SL-SMT has been designed using LCP (Liquid Crystal Polymer) which is stable at these high temperatures.

In addition, conventional assembly of pcb modules requires both Wave Soldering for standard THT (Through-Hole-Technology) components like pcb connector headers; and then Reflow Soldering for the SMT (Surface-Mount-Technology) components. With the SL-SMT, which uses THR technology, the Wave Solder operation is not needed. The shorter THR solder pins offer the flexibility of SMT components but achieve a mechanical strength of 10x that of "Gull Wing" SMT components. This additional strength is of great importance for pcb connectors where connection operations put strain onto standard SMT solder joints.

The SL-SMT is not only suitable for the latest soldering techniques, it has also been designed to be compatible with standard automatic "Pick-and-Place" machines. "Tape-on-Reel" and "Tray" packaging enable fully automatic component placement of the 90° (horizontal) and 180° (vertical) pin headers. These products are available in the standard open-ended, closed-ended and flanged versions, and mate with any of the female socket connectors of our Minimate and Omnimate Range in the pitch 3.50 mm, 5.00 and 5.08 mm.

Advantages:

- up to 30% reduction of production costs
- stable at 260 °C - compatible for all reflow soldering processes
- Through-Hole-Reflow pins gives 10x greater strength than "Gull Wing" SMT pins
- shorter pins enable double-sided placement
- Tape-on-Reel or Tray packaging for automatic "Pick-and-Place"

Machine oriented packaging
"Tape-on-Reel"

Reel dimensions and position of pin headers



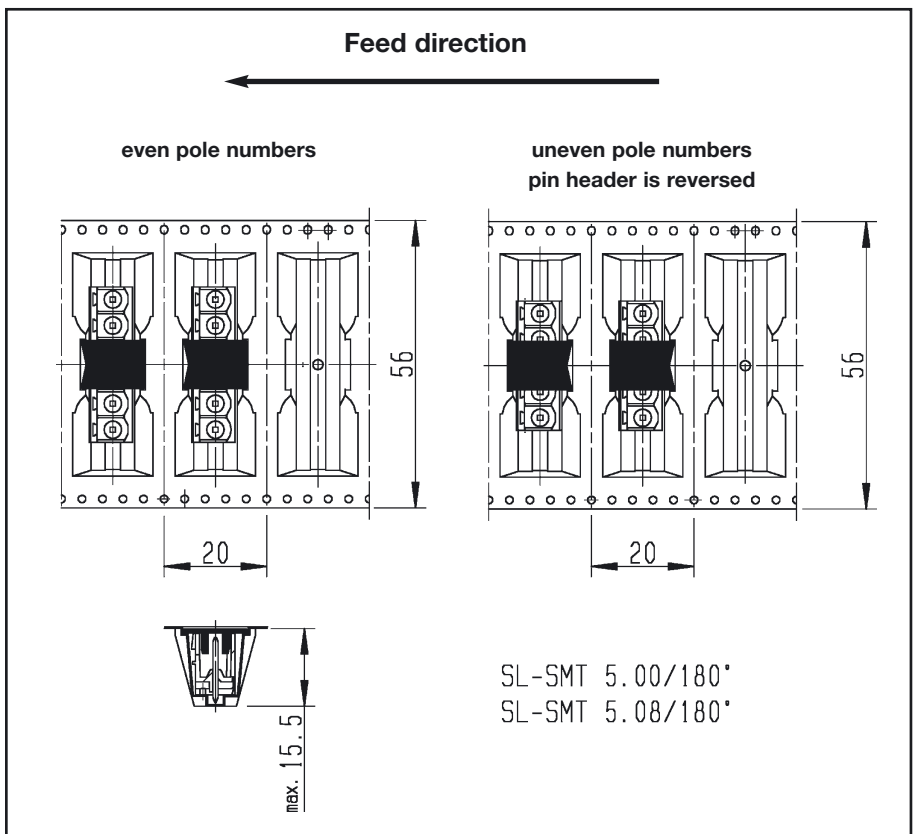
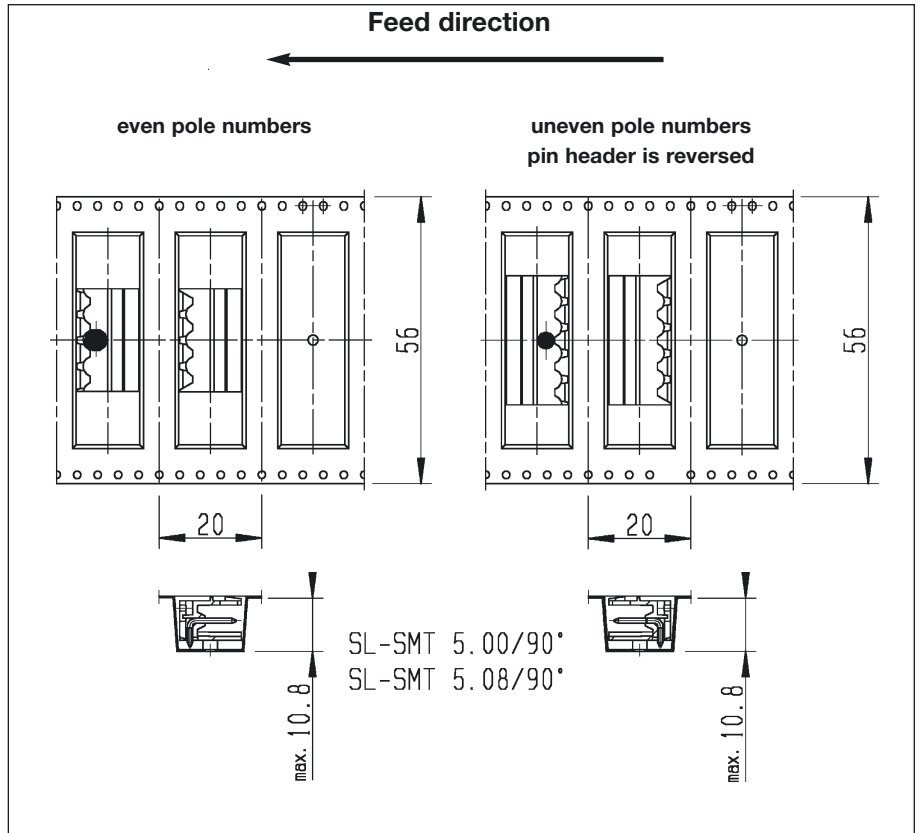
The pin headers for the 90° and 180° versions of the SL-SMT 5.00/5.08 are available in "Tape-on-Reel" for automatic component placement.

The reels are anti-static, have a diameter of 330 mm, and are designed for all conventionally available feeders.

The tapes used conform to the standard IEC 60286-3 and are made of anti-static, black polystyrene. The tape is covered with a protective foil.

A high temperature resistant Pick-and-Place pad is located in the middle of the pin headers for automatic gripping of the straight pin headers SL-SMT 5.00/180° and SL-SMT 5.08/180°. This Pick-and-Place pad is included in the "Tape-on-Reel" packaging.

The angled SL-SMT 5.00/90° and SL-SMT 5.08/90° pin headers are positioned so that no Pick-and-Place pad is needed for automatic gripping.



Machine oriented packaging "Tray"



The trays are adapted to the pin headers SL-SMT 5.08 and are based on the standard EN 60286-5. The tray material consists of black anti-static polystyrene. For transport, the trays are covered with a transparent foil.

A high temperature resistant Pick-and-Place pad is placed in the middle of the pin header for automatic gripping of the straight pin header SL-SMT 5.08/180° using a vacuum pipette. This pad is included in the tray packaging.



The angled pin header SL-SMT 5.08/90° is conceived to ensure that no Pick-and-Place pad is needed for automatic gripping.

The optimum positioning points for the vacuum pipette depend on the length of the connectors (open, closed or flange). In the tray drawing, we have marked these points with Start X and Step X for the X axis with reference to the example of an SL-SMT 5.08/12/90 without a flange. The following tables indicates the dimensions for the X and Y axes for the different pole numbers and versions.

Tray dimensions SL-SMT 5.08/90° and 180° open and closed version

X-values 90°

Poles	Start X/mm ¹⁾	Step X/mm	Number Step X
-	-	-	-
-	-	-	-
4	24.30	25.40	10
5	26.80	30.48	8
6	29.40	35.56	7
7	31.90	40.64	6
8	34.40	45.72	5
9	37.00	50.80	4
10	39.50	55.88	4
11	42.10	60.96	3
12	44.60	66.04	3
13	47.10	71.12	3
14	49.70	76.20	2
15	52.20	81.28	2
16	54.80	86.36	2
17	57.30	91.44	2
18	59.80	96.52	1
19	62.40	101.60	1
20	64.90	106.68	1
21	67.50	111.76	1
22	70.00	116.84	1
23	72.50	121.92	1
24	75.10	127.00	1

Y-values 90°

Start Y/mm ¹⁾	Step Y/mm	Number Step Y
20.30	20.00	5

X-values 180°

Poles	Start X/mm ¹⁾	Step X/mm	Number Step X
-	-	-	-
-	-	-	-
4	19.80	25.40	10
5	22.30	30.48	8
6	24.80	35.56	7
7	27.40	40.64	6
8	29.90	45.72	5
9	32.50	50.80	4
10	35.00	55.88	4
11	37.50	60.96	3
12	40.10	66.04	3
13	42.60	71.12	3
14	45.20	76.20	2
15	47.70	81.28	2
16	50.20	86.36	2
17	52.80	91.44	2
18	55.30	96.52	1
19	57.90	101.60	1
20	60.40	106.68	1
21	62.90	111.76	1
22	65.50	116.84	1
23	68.00	121.92	1
24	70.60	127.00	1

Y-values 180°

Start Y/mm ¹⁾	Step Y/mm	Number Step Y
18.00	20.00	5

¹⁾The start values are only reference values and must be re-checked when automatic placement machine is set-up!

Tray dimensions SL-SMT 5.08/90° and 180° flange version

X-values 90°

Poles	Start X/mm ¹⁾	Step X/mm	Number Step X
2	24.30	25.40	10
3	26.80	30.48	8
4	29.40	35.56	7
5	31.90	40.64	6
6	34.40	45.72	5
7	37.00	50.80	4
8	39.50	55.88	4
9	42.10	60.96	3
10	44.60	66.04	3
11	47.10	71.12	3
12	49.70	76.20	2
13	52.20	81.28	2
14	54.80	86.36	2
15	57.30	91.44	2
16	59.80	96.52	1
17	62.40	101.60	1
18	64.90	106.68	1
19	67.50	111.76	1
20	70.00	116.84	1
21	72.50	121.92	1
22	75.10	127.00	1
23	77.60	132.08	1
24	80.20	137.16	1

Y-values 90°

Start Y/mm ¹⁾	Step Y/mm	Number Step Y
20.30	20.00	5

X-values 180°

Poles	Start X/mm ¹⁾	Step X/mm	Number Step X
2	19.80	25.40	10
3	22.30	30.48	8
4	24.80	35.56	7
5	27.40	40.64	6
6	29.90	45.72	5
7	32.50	50.80	4
8	35.00	55.88	4
9	37.50	60.96	3
10	40.10	66.04	3
11	42.60	71.12	3
12	45.20	76.20	2
13	47.70	81.28	2
14	50.20	86.36	2
15	52.80	91.44	2
16	55.30	96.52	1
17	57.90	101.60	1
18	60.40	106.68	1
19	62.90	111.76	1
20	65.50	116.84	1
21	68.00	121.92	1
22	70.60	127.00	1
23	73.10	132.08	1
24	75.60	137.16	1

Y-values 180°

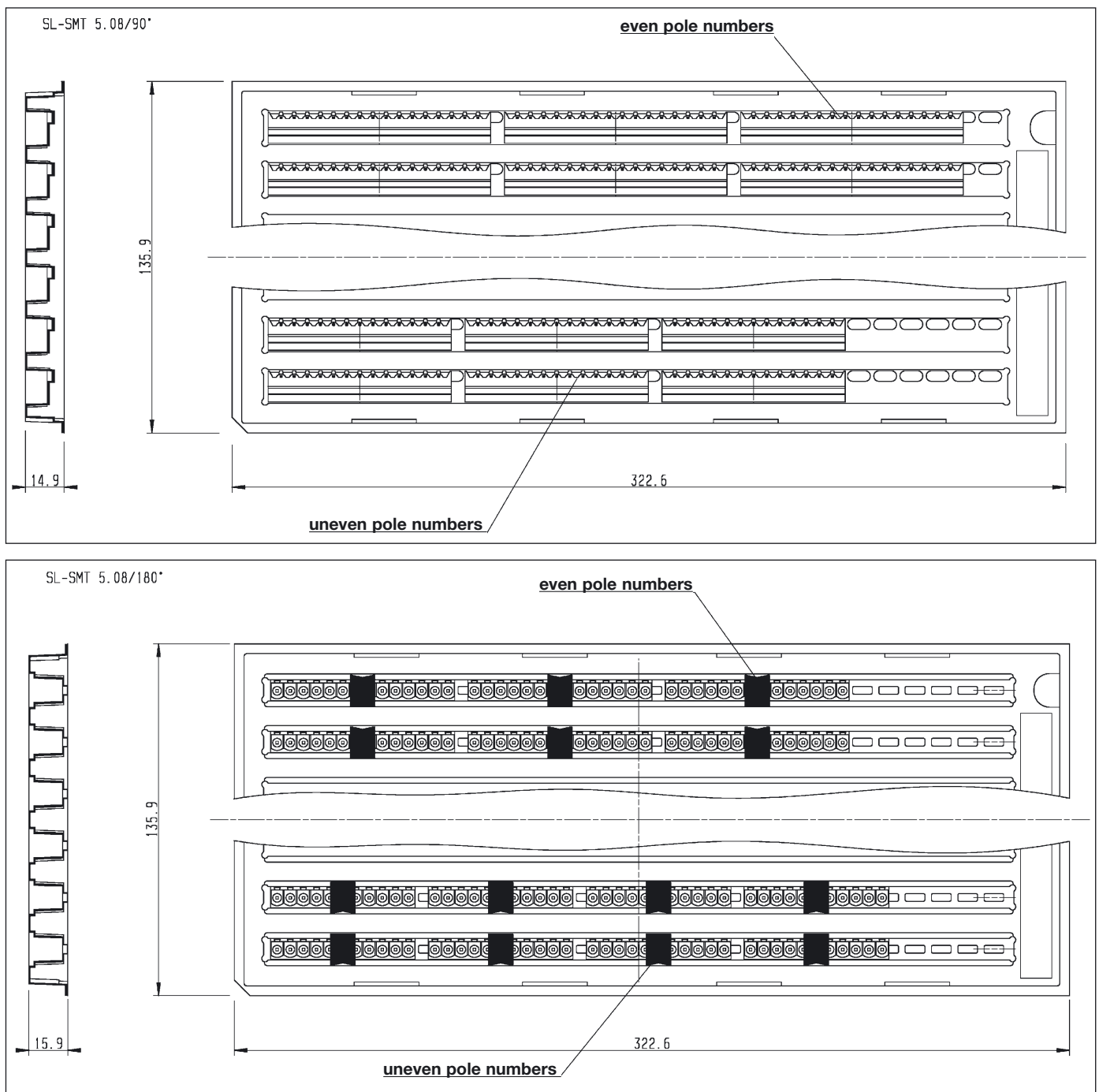
Start Y/mm ¹⁾	Step Y/mm	Number Step Y
18.00	20.00	5

¹⁾The start values are only reference values and must be re-checked when automatic placement machine is set-up!

Machine oriented packaging

“Tray”

Tray dimensions and position of pin headers SL-SMT 5.08



SL-SMT

User preparation of the SL-SMT 5.08 in the “Tray”

For user preparation of the SL-SMT 5.08 in the “Tray”, we also offer all components separately.

Empty tray

Type	Description	Cat. No.	Qty.
Tray SL-SMT 5.08/90	for SL-SMT 5.08/4...24/90, SL-SMT 5.08/4...24/90G and SL-SMT 5.08/2...24/90LF	1774640000	1
Tray SL-SMT 5.08/180	for SL-SMT 5.08/4...24/180 , SL-SMT 5.08/4...24/180G and SL-SMT 5.08/2...24/180LF	1774650000	1
PPP-SL-SMT 5.08/180	Pick-and-Place-Pad for SL-SMT 5.08/2...24/180 (open, closed and flange version)	1774680000	100

Application notes

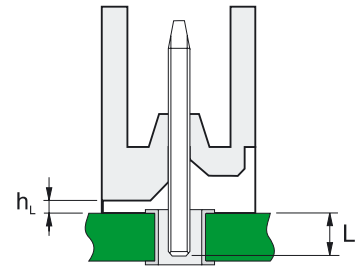
To guarantee the best soldering result in the reflow processes the required paste volume and paste filling level must be optimized for the paste printing process.

We recommend a calculation of paste volume as follows:

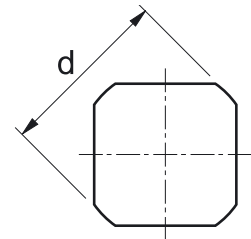
Solder paste volume:

Recommended for optimized solder fill, solder joint shape and tolerances according to IPC-A610B.

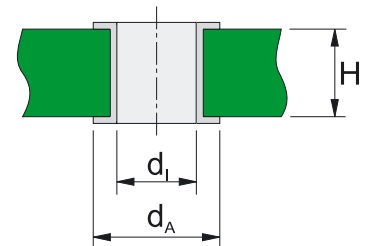
pin header type: open, closed ended: solder flange LF:	Poles 2 up to 8 -	Poles 9 up to 24 Poles 2 up to 24
recommended inside diameter finished hole *1) :	$d_I = 1.4^{+0.1}$ mm	$d_I = 1.5^{+0.1}$ mm
	paste volume V_P [mm ³] / filling level f_P [%] after print	
minimal solder joint shape optimal solder joint shape	2.4 mm ³ / 70 % 2.9 mm ³ / 90 %	3.1 mm ³ / 85 % 3.5 mm ³ / 100 %



pin header parameter



pin cross-section



PCB parameter

Valid for all types of SL-SMT with following parameters:

Pin headers:

- Pin length = **L** [mm] = $1.5^{-0.3}$
- Stand-off height = **h_L** [mm] = min. 0.3
- Pin diameter = **d** [mm] = 1.2

Printed circuit board (PCB):

- Board thickness = **H** [mm] = 1.6
- Type of hole = plated through hole
- Inside diameter finished hole = **d_I** [mm] = see table *1)
- Outside diameter solder eyelet = **d_A** [mm] = 2.3
- Tolerances according to IEC 326-3 = very fine

Template:

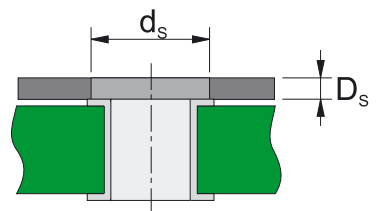
- Template thickness = **D_S** [μm] = 120 - 180
- Template aperture diameter = **d_S** [mm] = 2.1 *2)

Solder paste:

- Solder paste grain [μm] = 20 - 40 = type 3
- Evaporation volume of the solder paste [%] = approx. 50

Process:

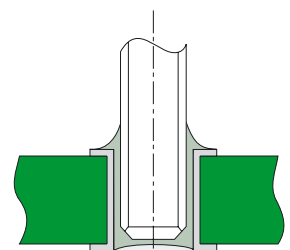
- Paste applying process = single template print
- Paste filling level of the finished hole = **f_P** [%] = see table
- Assembly processing = automatic Pick-and-Place
- Temperature profile = standard, according to EN 61760-1



template parameter

*1) Tolerances of component, PCB and placement machine must be observed:
recommended diameter for 9 to 24 poles and types with solder flange LF: $d_I = 1.5^{+0.1}$ mm

*2) Template aperture diameter about 10% smaller than Outside diameter of solder eyelet **d_A**



optimal solder joint shape

Additional information and application notes can be given on request, or found on our website:
www.weidmueller.com