

Overview of PCB Connectors

Chapter		Connected loads to IEC 60664-1 / IEC 61984				Connected loads to UL 1059			
		Pitch [mm]	Conductor cross-section [mm²]	Max. rated current [A]	Max. rated voltage [V]	Pitch [inch]	Conductor cross-section [AWG]	Max. rated current [A]	Max. rated voltage [V]
Minimate Range pitch 3.50	D	3.50 x 2.50	0.20 - 1.0	10	250	0.138 x 0.098	28 - 18	10	150
Omnimate Range pitch 3.50 / 3.81	E	3.50	0.20 - 1.5	17	250	0.138	28 - 14	10	300
		3.81	0.20 - 1.5	14.5	250	0.150	28 - 16	8	300
Omnimate Range pitch 5.00 / 5.08	F	5.00	0.20 - 2.5	23	400	0.197	26 - 12	15	300
		5.08				0.200			
Omnimate Range pitch 7.50 / 7.62	G	7.50	0.20 - 2.5	20	800	0.295	26 - 12	15	300
		7.62				0.300			
Unimate Range pitch 5.08	H	5.08	0.20 - 2.5	20	400	0.200	26 - 12	10	300
Powermate Range pitch 7.00	I	7.00	0.32 - 4.0	32	1000	0.276	22 - 12	25	600
Powermate Range pitch 7.62	J	7.62	0.20 - 6.0	41	800	0.300	22 - 10	31	600
Powermate Range pitch 10.16	K	10.16	0.20 - 16.0	69	1000	0.400	22 - 6	54	600
Crimpmate Range pitch 5.00	L	5.00	0.20 - 2.5	17	500	0.197	26 - 12	10	600

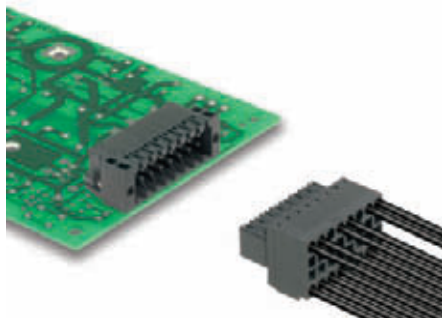
C

Minimate Range pitch 3.50

Minimate Range pitch 3.50	Male connectors with THR solder connection	D.2
	Male connectors with solder connection	D.10
	Socket connectors with tension clamp connection	D.14

Male connectors with THR solder connection

S2L-SMT 3.5/90G



High-temperature-resistant, angled, double density, closed male connector for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. Stable up to 290°C (2 x 30 s), which exceeds the requirements of EN 61760-1. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

Technical data

Rated data to IEC 60664-1 / IEC 61984

Clamping range, max.	mm ²
Solid H05(07) V-U	mm ²
Stranded H07 V-R	mm ²
Flexible H05(07) V-K	mm ²
Flexible with ferrule	mm ²
Ferrule with plastic collar	mm ²
Stripping length	mm
Screwdriver blade	mm
according to norm	
Tightening torque range	Nm

**Rated current
at ambient temperature**

A	10	9
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Overvoltage category
Pollution severity

Rated voltage	V	50	125	160
Rated impulse voltage	kV	2.5	1.5	1.5

UL 1059 rated data - E60693

Rated voltage	V	150	150
Rated current	A	10	10
AWG conductor			

CSA C22.2 rated data - LR12400 B

Rated voltage	V	50	50
Rated current	A	5	5

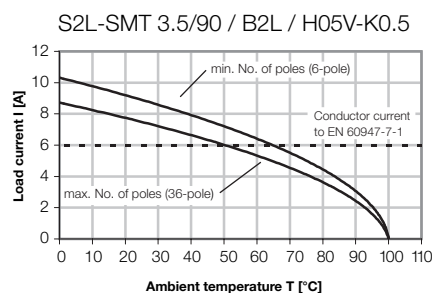
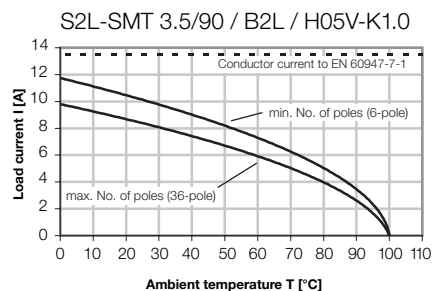
AWG conductor

Material data	
Type of insulating material	LCP GF
Flammability class acc. UL94	V-0
Contact base material	Cu alloy
Material of contact surface	tinned

Information

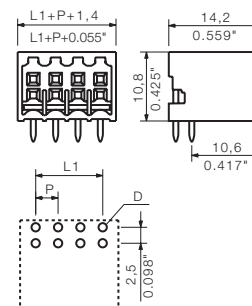
- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section and min. No. of poles.
- Hole diameter $D = 1,3 + 0,1 \text{ mm}$
- P on drg. = pitch
- Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.

Derating curve



S2L-SMT 3.5/90G Box

closed ends



Ordering data

Solder pin length	3.2 mm
Colour	black

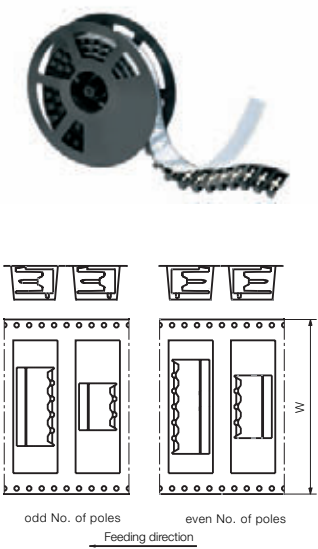
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Pitch 3.50 mm

Poles	1 mm (inch)	Qty.	Order No.	Order No.
6	7.00 (0.276)	50		1794210000
8	10.50 (0.413)	50		1794220000
10	14.00 (0.551)	50		1794230000
12	17.50 (0.689)	50		1794240000
14	21.00 (0.827)	50		1794250000
16	24.50 (0.965)	50		1794260000
18	28.00 (1.102)	20		1794270000
20	31.50 (1.240)	20		1794280000
22	35.00 (1.378)	20		1794290000
24	38.50 (1.516)	20		1794300000
26	42.00 (1.654)	20		1794310000
28	45.50 (1.791)	20		1794320000
30	49.00 (1.929)	20		1794330000
32	52.50 (2.067)	20		1794340000
34	56.00 (2.205)	20		1794350000
36	59.50 (2.343)	20		1794360000

S2L-SMT 3.5/90G Tape

closed ends in tape



Accessories

Possible colors

Additional colours on request



Coding

See chapter accessories



Marking strips

See chapter accessories



Floodlight indicator

See chapter accessories



Ordering data

Solder pin length	3.2 mm
Colour	black

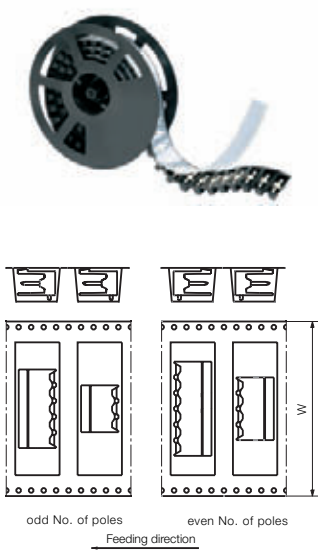
Pitch 3.50 mm

Poles	L1 mm	(inch)	Qty.	Order No.	Order No.
6	7.00	(0.276)	200		1807470000
8	10.50	(0.413)	200		1807480000
10	14.00	(0.551)	200		1807490000
12	17.50	(0.689)	200		1807500000
14	21.00	(0.827)	200		1807510000
16	24.50	(0.965)	200		1807520000
18	28.00	(1.102)	200		1807530000
20	31.50	(1.240)	200		1807540000
22	35.00	(1.378)	200		1807550000
24	38.50	(1.516)	200		1802190000

Tape width W = 56 mm

S2L-SMT 3.5/90LF Tape

with solder flange in tape



Accessories

Possible colors

Additional colours on request



Coding

See chapter accessories



Marking strips

See chapter accessories



Floodlight indicator

See chapter accessories



Ordering data

Solder pin length	3.2 mm
Colour	black

Pitch 3.50 mm

Poles	L1 mm	(inch)	Qty.	Order No.	Order No.
6	7.00	(0.276)	200		1807560000
8	10.50	(0.413)	200		1807570000
10	14.00	(0.551)	200		1807580000
12	17.50	(0.689)	200		1807590000
14	21.00	(0.827)	200		1807600000
16	24.50	(0.965)	200		1807610000
18	28.00	(1.102)	200		1807620000
20	31.50	(1.240)	200		1807630000

Tape width W = 56 mm

Male connectors with THR solder connection

S2L-SMT 3.5/180G



High-temperature-resistant, straight, double density male connector for all common soldering methods. Optimised for automatic assembly with pick&place pad. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. Stable up to 290°C (2 x 30 s), which exceeds the requirements of EN 61760-1. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

Technical data

Rated data to IEC 60664-1 / IEC 61984

Clamping range, max.	mm ²
Solid H05(07) V-U	mm ²
Stranded H07 V-R	mm ²
Flexible H05(07) V-K	mm ²
Flexible with ferrule	mm ²
Ferrule with plastic collar	mm ²
Stripping length	mm
Screwdriver blade	mm
according to norm	
Tightening torque range	Nm

**Rated current
at ambient temperature**

A	10	9
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Overvoltage category
Pollution severity

Rated voltage	V	50	125	160
Rated impulse voltage	kV	2.5	1.5	1.5

UL 1059 rated data - E60693

Rated voltage	V	150	150
Rated current	A	10	10
AWG conductor			

CSA C22.2 rated data - LR12400 B

Rated voltage	V	50	50
Rated current	A	5	5
AWG conductor			

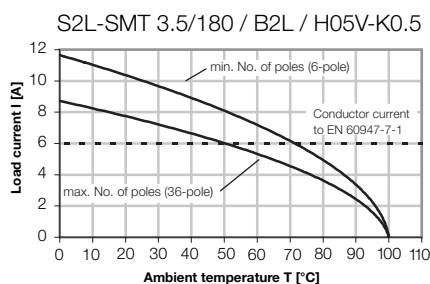
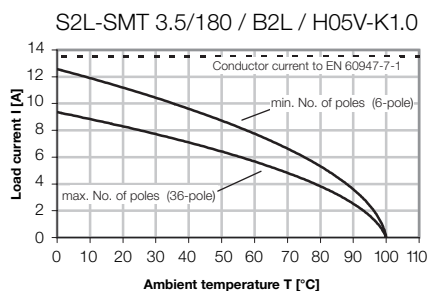
Material data

Type of insulating material	LCP GF
Flammability class acc. UL94	V-0
Contact base material	Cu alloy
Material of contact surface	tinned

Information

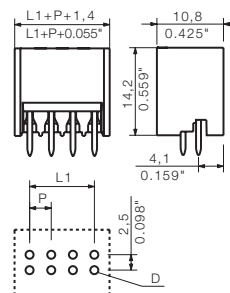
- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section and min. No. of poles.
- Hole diameter $D = 1,3 \pm 0,1 \text{ mm}$
- P on drg. = pitch
- Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.

Derating curve



S2L-SMT 3.5/180G Box

closed ends



Ordering data

Solder pin length	3.5 mm
Colour	black

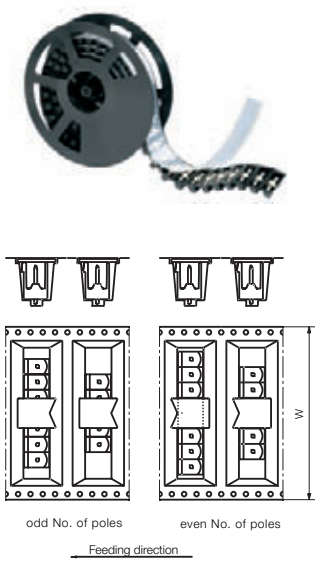
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Pitch 3.50 mm

Poles:1 mm	(inch)	Qty.	Order No.	Order No.
6	7.00 (0.276)	50		1794530000
8	10.50 (0.413)	50		1794540000
10	14.00 (0.551)	50		1794550000
12	17.50 (0.689)	50		1794560000
14	21.00 (0.827)	50		1794570000
16	24.50 (0.965)	50		1794580000
18	28.00 (1.102)	20		1794590000
20	31.50 (1.240)	20		1794600000
22	35.00 (1.378)	20		1794610000
24	38.50 (1.516)	20		1794620000
26	42.00 (1.654)	20		1794630000
28	45.50 (1.791)	20		1794640000
30	49.00 (1.929)	20		1794650000
32	52.50 (2.067)	20		1794660000
34	56.00 (2.205)	20		1794670000
36	59.50 (2.343)	20		1794680000

S2L-SMT 3.5/180G Tape

closed ends in tape



Accessories

Possible colors

Additional colours on request



Coding

See chapter accessories



Marking strips

See chapter accessories



Ordering data

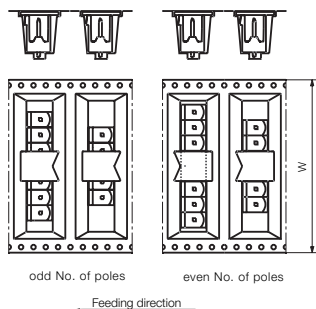
Solder pin length	3.5 mm
Colour	black

Pitch 3.50 mm

Poles	L mm	(inch)	Qty.	Order No.	Order No.
6	7.00	(0.276)	150		1807780000
8	10.50	(0.413)	150		1807790000
10	14.00	(0.551)	150		1807800000
12	17.50	(0.689)	150		1807810000
14	21.00	(0.827)	150		1807820000
16	24.50	(0.965)	150		1807830000
18	28.00	(1.102)	150		1807840000
20	31.50	(1.240)	150		1807850000
22	35.00	(1.378)	150		1807860000
24	38.50	(1.516)	150		1802220000

Tape width W = 56 mm

with solder flange in tape



Possible colors

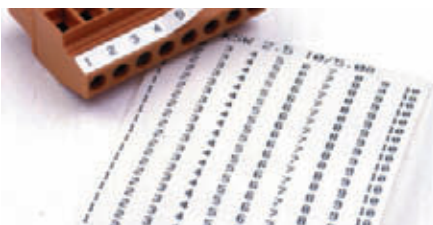
Additional colours on request



See chapter accessories



See chapter accessories



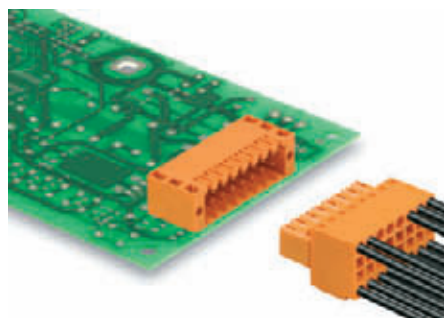
Solder pin length	3.5 mm
Colour	black

[illegible]

Poles	1 mm	(inch)	Qty.	Order No.	Order No.
6	7.00	(0.276)	150		1807870000
8	10.50	(0.413)	150		1807880000
10	14.00	(0.551)	150		1807890000
12	17.50	(0.689)	150		1807900000
14	21.00	(0.827)	150		1807910000
16	24.50	(0.965)	150		1807920000
18	28.00	(1.102)	150		1807930000
20	31.50	(1.240)	150		1807940000

Tape width $W = 56$ mm

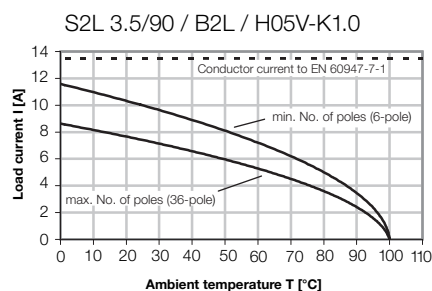
S2L 3.5/90



Angled, 2-row male connector in open-side, closed and flange versions. The male connectors with 3.5 mm pin length are designed for wave soldering and are packaged in a cardboard box. Can also be screwed to PCB. The male connectors provide space for labelling and can be coded.

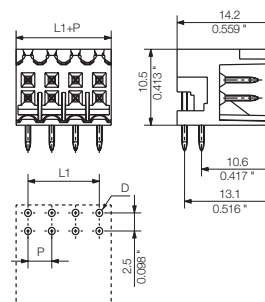
- 80 V (IEC) / 150 V (UL)
- 9 A (IEC / 8 A (UL)

Derating curve



S2L 3.5/90

open side



Technical data

Rated data to IEC 60664-1 / IEC 61984

Clamping range, max.	mm ²
Solid H05(07) V-U	mm ²
Stranded H07 V-R	mm ²
Flexible H05(07) V-K	mm ²
Flexible with ferrule	mm ²
Ferrule with plastic collar	mm ²
Stripping length	mm
Screwdriver blade	mm
according to norm	
Tightening torque range	Nm

**Rated current
at ambient temperature**

	A	10	9
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Overvoltage category
Pollution severity

Rated voltage	V	80	125	250
Rated impulse voltage	kV	2.5	2.5	2.5

UL 1059 rated data - E60693

Rated voltage	V	150	150
Rated current	A	7	7
AWG conductor			

CSA C22.2 rated data - LR12400 B

Rated voltage	V	50	50
Rated current	A	5	5
AWG conductor			

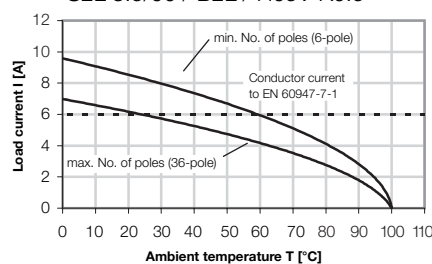
Material data

Type of insulating material	PBT
Flammability class acc. UL94	V-0
Contact base material	Cu alloy
Material of contact surface	tinned

Information

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section and min. No. of poles.
- Hole diameter $D = 1,3 + 0,1 \text{ mm}$
- P on drg. = pitch
- Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.

S2L 3.5/90 / B2L / H05V-K0.5



Ordering data

Solder pin length	3.5 mm
Colour	orange

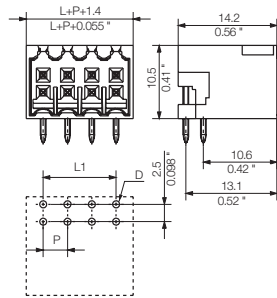
[illegible]

Pitch 3.50 mm

Poles	1 mm (inch)	Qty.	Order No.	Order No.
6	7.00 (0.276)	50		1728150000
8	10.50 (0.413)	50		1728160000
10	14.00 (0.551)	50		1728170000
12	17.50 (0.689)	50		1728180000
14	21.00 (0.827)	50		1728190000
16	24.50 (0.965)	50		1728200000
18	28.00 (1.102)	20		1728210000
20	31.50 (1.240)	20		1728220000
22	35.00 (1.378)	20		1728230000
24	38.50 (1.516)	20		1728240000
26	42.00 (1.654)	20		1728250000
28	45.50 (1.791)	20		1728260000
30	49.00 (1.929)	20		1728270000
32	52.50 (2.067)	20		1728280000
34	56.00 (2.205)	20		1728290000
36	59.50 (2.343)	20		1728300000

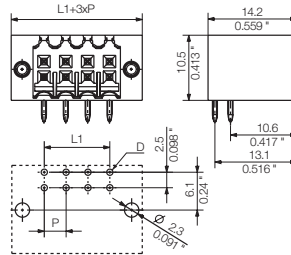
S2L 3.5/90G

closed ends



S2L 3.5/90F

with screw flange



Accessories

Possible colors

Additional colours on request



Coding

See chapter accessories

Ordering data

Solder pin length	3.5 mm
Colour	orange

[illegible]

Pitch 3.50 mm

Poles	L 1 mm	(inch)	Qty.	Order No.	Order No.
6	7.00	(0.276)	50		1727830000
8	10.50	(0.413)	50		1727840000
10	14.00	(0.551)	50		1727850000
12	17.50	(0.689)	50		1727860000
14	21.00	(0.827)	50		1727870000
16	24.50	(0.965)	50		1727880000
18	28.00	(1.102)	20		1727890000
20	31.50	(1.240)	20		1727900000
22	35.00	(1.378)	20		1727910000
24	38.50	(1.516)	20		1727920000
26	42.00	(1.654)	20		1727930000
28	45.50	(1.791)	20		1727940000
30	49.00	(1.929)	20		1727950000
32	52.50	(2.067)	20		1727960000
34	56.00	(2.205)	20		1727970000
36	59.50	(2.343)	20		1727980000

Ordering data

Solder pin length	3.5 mm
Colour	orange

[illegible]

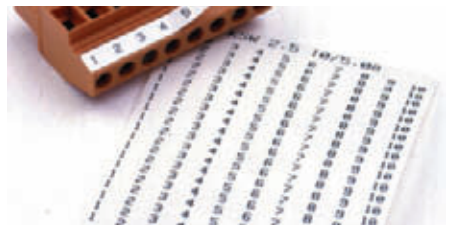
Pitch 3.50 mm

Poles	1 mm (inch)	Qty.	Order No.	Order No.
6	7.00 (0.276)	50		1728470000
8	10.50 (0.413)	50		1728480000
10	14.00 (0.551)	50		1728490000
12	17.50 (0.689)	50		1728500000
14	21.00 (0.827)	50		1728510000
16	24.50 (0.965)	50		1728520000
18	28.00 (1.102)	20		1728530000
20	31.50 (1.240)	20		1728540000
22	35.00 (1.378)	20		1728550000
24	38.50 (1.516)	20		1728560000
26	42.00 (1.654)	20		1728570000
28	45.50 (1.791)	20		1728580000
30	49.00 (1.929)	20		1728590000
32	52.50 (2.067)	20		1728600000
34	56.00 (2.205)	20		1728610000
36	59.50 (2.343)	20		1728620000



Marking strips

See chapter accessories



Floodlight indicator

See chapter accessories

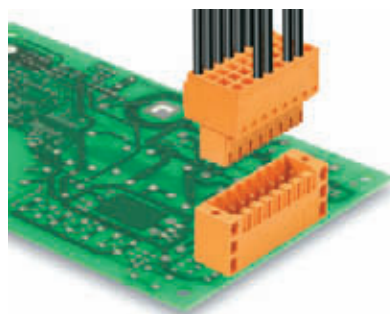


Screw

See chapter accessories
PTSC KA 22 x 4.5



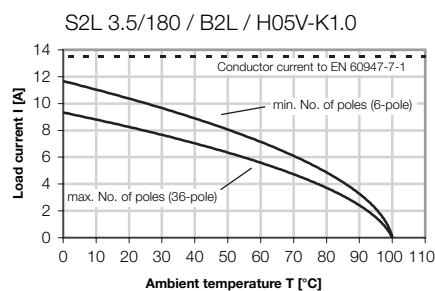
S2L 3.5/180



Straight, 2-row male connector available in open, closed and flange versions. The pin length of 3.5 mm is designed for wave soldering. It is also possible to screw them to the PCB. These male connectors provide space for labelling and can be coded. Supplied in cardboard box.

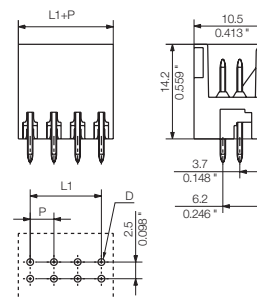
- 80 V (IEC) / 150 V (UL)
- 9 A (IEC) / 8 A (UL)

Derating curve



S2L 3.5/180

open side



Technical data

Rated data to IEC 60664-1 / IEC 61984

Clamping range, max.	mm ²
Solid H05(07) V-U	mm ²
Stranded H07 V-R	mm ²
Flexible H05(07) V-K	mm ²
Flexible with ferrule	mm ²
Ferrule with plastic collar	mm ²
Stripping length	mm
Screwdriver blade	mm
according to norm	
Tightening torque range	Nm

**Rated current
at ambient temperature**

A	10	9
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Overvoltage category
Pollution severity

Rated voltage	V	80	125	250
Rated impulse voltage	kV	2.5	2.5	2.5

UL 1059 rated data - E60693

Rated voltage	V	150	150
Rated current	A	7	7
AWG conductor			

CSA C22.2 rated data - LR12400 B

Rated voltage	V	50	50
Rated current	A	5	5
AWG conductor			

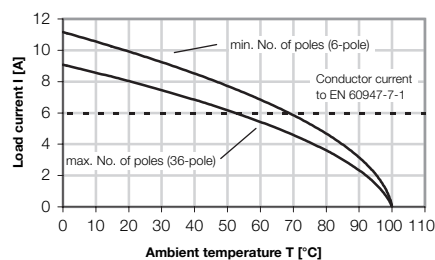
Material data

Type of insulating material	PBT
Flammability class acc. UL94	V-0
Contact base material	Cu alloy
Material of contact surface	tinned

Information

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section and min. No. of poles.
- Hole diameter $D = 1,3 \pm 0,1 \text{ mm}$
- P on drg. = pitch
- Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.

S2L 3.5/180 / B2L / H05V-K0.5



Ordering data

Solder pin length	3.5 mm
Colour	orange

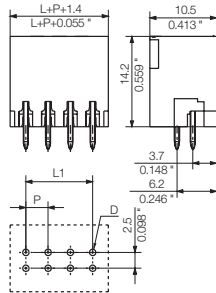
[illegible]

Pitch 3.50 mm

Poles	L mm	(inch)	Qty.	Order No.	Order No.
6	7.00	(0.276)	50		1729110000
8	10.50	(0.413)	50		1729120000
10	14.00	(0.551)	50		1729130000
12	17.50	(0.689)	50		1729140000
14	21.00	(0.827)	50		1729150000
16	24.50	(0.965)	50		1729160000
18	28.00	(1.102)	20		1729170000
20	31.50	(1.240)	20		1729180000
22	35.00	(1.378)	20		1729190000
24	38.50	(1.516)	20		1729200000
26	42.00	(1.654)	20		1729210000
28	45.50	(1.791)	20		1729220000
30	49.00	(1.929)	20		1729230000
32	52.50	(2.067)	20		1729240000
34	56.00	(2.205)	20		1729250000
36	59.50	(2.343)	20		1729260000

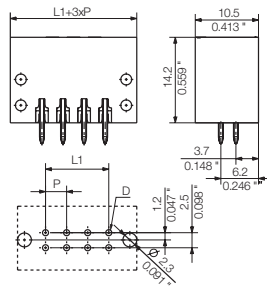
S2L 3.5/180G

closed ends



S2L 3.5/180F

with screw flange



Accessories

Possible colors

Additional colours on request



Coding

See chapter accessories

Ordering data

Solder pin length	3.5 mm
Colour	orange

[illegible]

Pitch 3.50 mm

Poles	L 1 mm (inch)	Qty.	Order No.	Order No.
6	7.00 (0.276)	50		1728790000
8	10.50 (0.413)	50		1728800000
10	14.00 (0.551)	50		1728810000
12	17.50 (0.689)	50		1728820000
14	21.00 (0.827)	50		1728830000
16	24.50 (0.965)	50		1728840000
18	28.00 (1.102)	20		1728850000
20	31.50 (1.240)	20		1728860000
22	35.00 (1.378)	20		1728870000
24	38.50 (1.516)	20		1728880000
26	42.00 (1.654)	20		1728890000
28	45.50 (1.791)	20		1728900000
30	49.00 (1.929)	20		1728910000
32	52.50 (2.067)	20		1728920000
34	56.00 (2.205)	20		1728930000
36	59.50 (2.343)	20		1728940000

Ordering data

Solder pin length	3.5 mm
Colour	orange

[illegible]

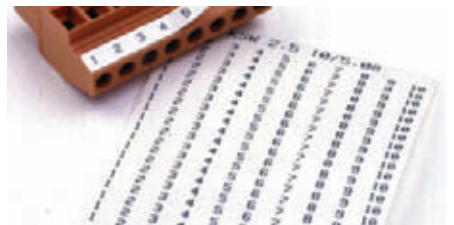
Pitch 3.50 mm

Poles	1 mm (inch)	Qty.	Order No.	Order No.
6	7.00 (0.276)	50		1729430000
8	10.50 (0.413)	50		1729440000
10	14.00 (0.551)	50		1729450000
12	17.50 (0.689)	50		1729460000
14	21.00 (0.827)	50		1729470000
16	24.50 (0.965)	50		1729480000
18	28.00 (1.102)	20		1729490000
20	31.50 (1.240)	20		1729500000
22	35.00 (1.378)	20		1729510000
24	38.50 (1.516)	20		1729520000
26	42.00 (1.654)	20		1729530000
28	45.50 (1.791)	20		1729540000
30	49.00 (1.929)	20		1729550000
32	52.50 (2.067)	20		1729560000
34	56.00 (2.205)	20		1729570000
36	59.50 (2.343)	20		1729580000



Marking strips

See chapter accessories



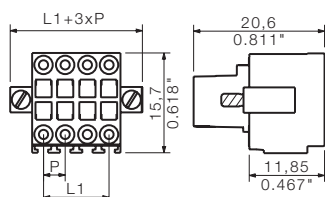
Screw

See chapter accessories
PTSC KA 22 x 4.5



B2L 3.5F

with flange



Accessories

Possible colors

Additional colours on request



Coding

See chapter accessories



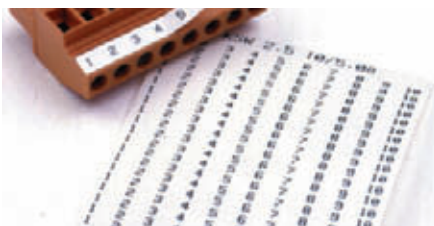
Hood

See chapter accessories



Marking strips

See chapter accessories



Screwdriver

See chapter accessories
Order No. 9008370000



Ordering data

Solder pin length

Colour

orange

black

Pitch 3.50 mm

Poles	L1 mm	(inch)	Qty.	Order No.	Order No.
6	7.00	(0.276)	50	1748010000	1748170000
8	10.50	(0.413)	50	1748020000	1748180000
10	14.00	(0.551)	50	1748030000	1748190000
12	17.50	(0.689)	50	1748040000	1748200000
14	21.00	(0.827)	50	1748050000	1748210000
16	24.50	(0.965)	50	1748060000	1748220000
18	28.00	(1.102)	20	1748070000	1748230000
20	31.50	(1.240)	20	1748080000	1748240000
22	35.00	(1.378)	20	1748090000	1748250000
24	38.50	(1.516)	20	1748100000	1748260000
26	42.00	(1.654)	20	1748110000	1748270000
28	45.50	(1.791)	20	1748120000	1748280000
30	49.00	(1.929)	20	1748130000	1748290000
32	52.50	(2.067)	20	1748140000	1748300000
34	56.00	(2.205)	20	1748150000	1748310000
36	59.50	(2.343)	20	1748160000	1748320000

Accessories

LH release lever

Possible colors

Additional colours on request



Coding

See chapter accessories



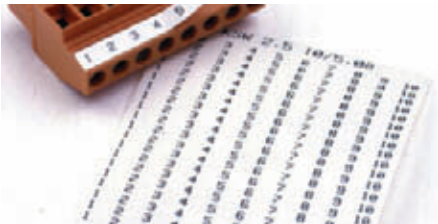
Hood

See chapter accessories



Marking strips

See chapter accessories



Screwdriver

See chapter accessories
Order No. 9008370000



plugged in



released



In confined installations it is often difficult to gain access to and grab the plug-in connectors. In order to be able to separate male and female connectors easily, Weidmüller has developed special connectors with a release lever. The release lever has to be braced against a surface in order to operate properly. This is achieved by using male connectors with a fixed flange, or devices with a suitably designed front panel. The lever can be operated either by hand or with a screwdriver.

