

## Printed Circuit Board Connectors

### SL 3.81/BL 3.81

# NEW



Our new 3.81mm (0.15 inch) pitch connector system complements our comprehensive 3.5mm pitch system and allows the customer to choose from a wide variety of high density connection products from Weidmuller.

The 3.81 mm pitch pin headers are offered in 90° (horizontal) and 180° (vertical) orientations. The socket blocks, with clamping yoke connection, are available with three different cable-entry angle possibilities: 180°, 90° & 270°. The pin headers and socket blocks are also offered with or without integrated screw flanges for added security.

The new Weidmuller pcb connectors are layout compatible with the current 3.81mm connectors in the market.

#### United States

Weidmuller Inc.  
821 Southlake Blvd.  
Richmond, Virginia 23236  
Telephone: (800) 849-9343  
Facsimile: (804) 379-2593  
Email: [info@weidmuller.com](mailto:info@weidmuller.com)  
Website: [www.weidmuller.com](http://www.weidmuller.com)

#### Canada

Weidmuller Ltd.  
10 Spy Court  
Markham, Ontario L3R-5H6  
Telephone: (800) 268-4080  
Facsimile: (905) 475-2798  
Email: [info1@weidmuller.ca](mailto:info1@weidmuller.ca)  
Website: [www.weidmuller.ca](http://www.weidmuller.ca)

#### Mexico

Weidmuller, S.A. de C.V.  
5 Sur No. 4311  
Col. Huexotitla  
72534 Puebla, Pue. Mexico  
Telephone: (22) 37 2549  
Facsimile: (22) 43 1981  
Email: [weidmull@acnet.net](mailto:weidmull@acnet.net)

**Weidmüller** 

Materials	
Insulation material	PA66
Color	black, green
Temperature range	-20...+100 °C
Flammability class.	UL94 V-0

System characteristic values	
Pitch	mm 3.81
Connection method	clamping yoke (screw)
Soldering pin length	mm 3.5
PCB hole diameter	Ømm 1.3 <sup>3)</sup>
Insulation striping length	mm 6.5
Flange screw	M2.5
Insulation resistance	M 5
Through resistance	m 5
Torque	Nm 0.2...0.3

Wire sizes	
Clamping range	mm <sup>2</sup> 0.08...1.9
"e" solid H05(07) V-U	mm <sup>2</sup> 0.5...1.5
"f" flexible H05(07) V-K	mm <sup>2</sup> 0.5...1.5
"f" with ferrule according to DIN 46228/1	mm <sup>2</sup> 0.5...1.5
... with plastic collar according to DIN 46228/4	mm <sup>2</sup> 0.5...1.5
AWG conductor	30...14
Gauge according to EN 60999	mm 2.4 x 1.5 (Ø 1.6)

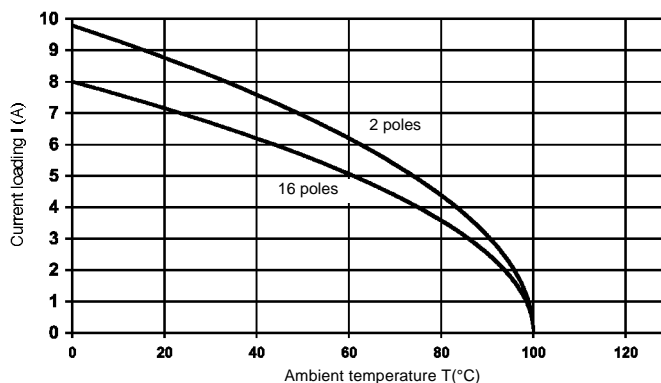
VDE 0110 4.97 rated data	
Rated cross section according to EN 60999	mm <sup>2</sup> 1.5
Rated current <sup>3)</sup>	A 8
Overvoltage category / Pollution severity	III/3 III/2 II/2
Rated voltage	V 160 250 250
Impulse voltage	kV 2.5 4 2.5

UL1059 Class B rated voltage	
Rated voltage	V~ 300
Rated current	A 8
Wire size (field wiring)	AWG 30...16

CSA rated data	
Rated voltage	V~ 300
Rated current	A 5
Wire size (field wiring)	AWG 22...14

Application notes	

3) referred to 20°C ambient temperature, rated cross-section and number of poles



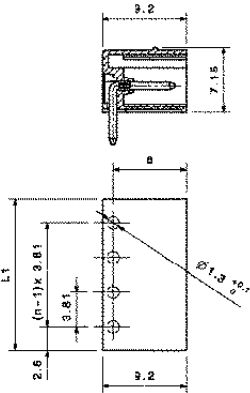
Conductor H07V-K 1.5 mm<sup>2</sup>

For the mounting of PCBs, it should be noted that the rated data given in the datasheet 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.

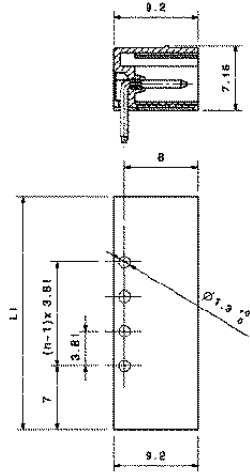
Weidmüller connectors are tested according to the DIN VDE 0627 standard, and are valid for its field of applications. Provided that the connectors are used for the intended purpose, all requirements with respect to the occurrence of electrical, mechanical, thermic and corrosive stress will be satisfied.



Pin headers SL 3.81/90G



Pin headers SL3.81/90F



Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	-	-	-

\*Overvoltage category III / Pollution severity 3

Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	-	-	-

\*Overvoltage category III / Pollution severity 3

Soldering pin length 3.5 mm

Soldering pin length 3.5 mm

Poles	Type	Color		Qty.
		black	green	
Part No.	Part No.			
2	SL3.81/2/90G	1793130000	1793240000	50
3	SL3.81/3/90G	1793140000	1793250000	50
4	SL3.81/4/90G	1793150000	1793260000	50
5	SL3.81/5/90G	1793160000	1793270000	50
6	SL3.81/6/90G	1793170000	1793280000	50
8	SL3.81/8/90G	1793180000	1793290000	50
10	SL3.81/10/90G	1793190000	1793300000	50
12	SL3.81/12/90G	1793200000	1793310000	50
16	SL3.81/16/90G	1793210000	1793320000	50

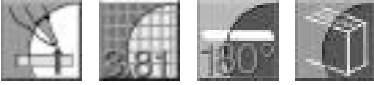
Poles	Type	Color		Qty.
		black	green	
Part No.	Part No.			
2	SL3.81/2/90F	1793330000	1793420000	50
3	SL3.81/3/90F	1793340000	1793430000	50
4	SL3.81/4/90F	1793350000	1793440000	50
5	SL3.81/5/90F	1793360000	1793450000	50
6	SL3.81/6/90F	1793370000	1793460000	50
8	SL3.81/8/90F	1793380000	1793470000	50
10	SL3.81/10/90F	1793390000	1793480000	50
12	SL3.81/12/90F	1793400000	1793490000	50
16	SL3.81/16/90F	1793410000	1793500000	50

Additional pole numbers on request. Minimum order quantities may apply.

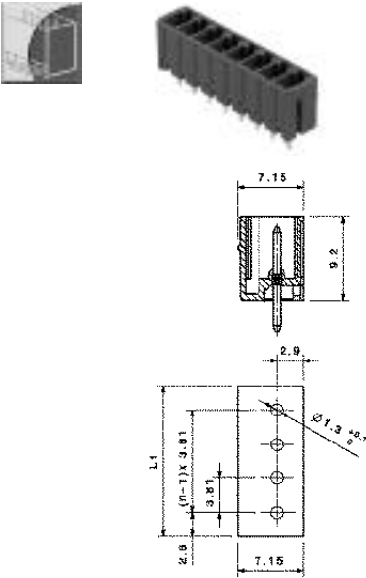
Additional pole numbers on request. Minimum order quantities may apply.

Accessories	
Direct printing	on request
Coding element	on request

Accessories	
Direct printing	on request
Coding element	on request



Pin headers SL 3.81/180G



Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	-	-	-

\*Overvoltage category III / Pollution severity 3

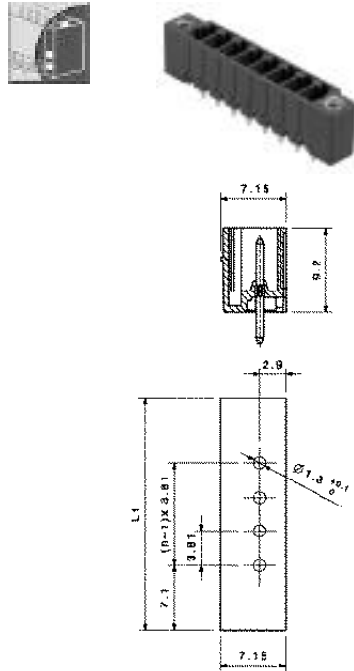
Soldering pin length 3.5 mm

Poles	Type	Color		Qty.
		black	green	
2	SL3.81/2/180G	1793520000	1793610000	50
3	SL3.81/3/180G	1793530000	1793620000	50
4	SL3.81/4/180G	1793540000	1793630000	50
5	SL3.81/5/180G	1793550000	1793640000	50
6	SL3.81/6/180G	1793560000	1793650000	50
8	SL3.81/8/180G	1793570000	1793660000	50
10	SL3.81/10/180G	1793580000	1793670000	50
12	SL3.81/12/180G	1793590000	1793680000	50
16	SL3.81/16/180G	1793600000	1793690000	50

Additional pole numbers on request. Minimum order quantities may apply.

Accessories	
Direct printing	on request
Coding element	on request

Pin headers SL 3.81/180F



Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	-	-	-

\*Overvoltage category III / Pollution severity 3

Soldering pin length 3.5 mm

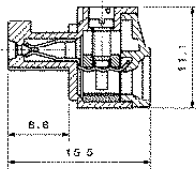
Poles	Type	Color		Qty.
		black	green	
2	SL3.81/2/180F	1793700000	1793790000	50
3	SL3.81/3/180F	1793710000	1793800000	50
4	SL3.81/4/180F	1793720000	1793810000	50
5	SL3.81/5/180F	1793730000	1793820000	50
6	SL3.81/6/180F	1793740000	1793830000	50
8	SL3.81/8/180F	1793750000	1793840000	50
10	SL3.81/10/180F	1793760000	1793850000	50
12	SL3.81/12/180F	1793770000	1793860000	50
16	SL3.81/16/180F	1793780000	1793870000	50

Additional pole numbers on request. Minimum order quantities may apply.

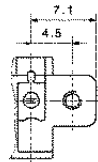
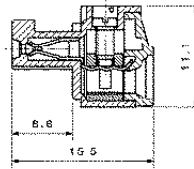
Accessories	
Direct printing	on request
Coding element	on request



Socket blocks BL3.81



Socket blocks BL 3.81F



Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	1.5	30...16	22...14

\*Overvoltage category III / Pollution severity 3

Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	1.5	30...16	22...14

\*Overvoltage category III / Pollution severity 3

Color		black	green	
Poles	Type	Part No.	Part No.	Qty.
2	BL3.81/2	1792770000	1792860000	50
3	BL3.81/3	1792780000	1792870000	50
4	BL3.81/4	1792790000	1792880000	50
5	BL3.81/5	1792800000	1792890000	50
6	BL3.81/6	1792810000	1792900000	50
8	BL3.81/8	1792820000	1792910000	50
10	BL3.81/10	1792830000	1792920000	50
12	BL3.81/12	1792840000	1792930000	50
16	BL3.81/16	1792850000	1792940000	50

Color		black	green	
Poles	Type	Part No.	Part No.	Qty.
2	BL3.81/2F	1792950000	1793040000	50
3	BL3.81/3F	1792960000	1793050000	50
4	BL3.81/4F	1792970000	1793060000	50
5	BL3.81/5F	1792980000	1793070000	50
6	BL3.81/6F	1792990000	1793080000	50
8	BL3.81/8F	1793000000	1793090000	50
10	BL3.81/10F	1793010000	1793100000	50
12	BL3.81/12F	1793020000	1793110000	50
16	BL3.81/16F	1793030000	1793120000	50

Additional pole numbers on request. Minimum order quantities may apply.

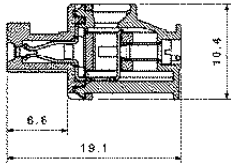
Accessories	
Direct printing	on request

Additional pole numbers on request. Minimum order quantities may apply.

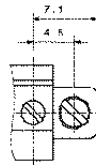
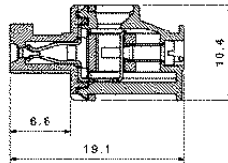
Accessories	
Direct printing	on request



Socket blocks BL 3.81/90



Socket blocks BL 3.81/90F



Technical data	VDE	UL	CSA	
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	1.5	30...16	22...14

\*Overvoltage category III / Pollution severity 3

Technical data	VDE	UL	CSA	
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	1.5	30...16	22...14

\*Overvoltage category III / Pollution severity 3

Color	black	green		
Poles	Type	Part No.	Part No.	Qty.
2	BL3.81/2/90	1798500000	1798680000	50
3	BL3.81/3/90	1798120000	1798690000	50
4	BL3.81/4/90	1798550000	1798710000	50
5	BL3.81/5/90	1798570000	1798720000	50
6	BL3.81/6/90	1798590000	1798730000	50
8	BL3.81/8/90	1798130000	1798740000	50
10	BL3.81/10/90	1798610000	1798750000	50
12	BL3.81/12/90	1798630000	1798760000	50
16	BL3.81/16/90	1798660000	1798770000	50

Color	black	green		
Poles	Type	Part No.	Part No.	Qty.
2	BL3.81/2/90F	1798780000	1798850000	50
3	BL3.81/3/90F	1798140000	1798860000	50
4	BL3.81/4/90F	1798790000	1798870000	50
5	BL3.81/5/90F	1798800000	1798880000	50
6	BL3.81/6/90F	1798810000	1798890000	50
8	BL3.81/8/90F	1798150000	1798900000	50
10	BL3.81/10/90F	1798820000	1798910000	50
12	BL3.81/12/90F	1798830000	1798920000	50
16	BL3.81/16/90F	1798840000	1798930000	50

Additional pole numbers on request. Minimum order quantities may apply.

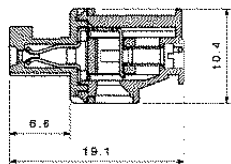
Additional pole numbers on request. Minimum order quantities may apply.

Accessories  
Direct printing on request

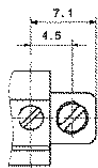
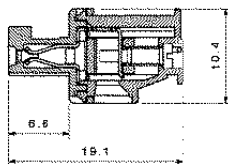
Accessories  
Direct printing on request



Socket blocks BL 3.81/270



Socket blocks BL 3.81/270F



Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	1.5	30...16	22...14

\*Overvoltage category III / Pollution severity 3

Technical data		VDE	UL	CSA
Rated voltage	V	125*	300	300
Rated current	A	8	8	5
Clamping range max.	mm <sup>2</sup> /AWG	1.5	30...16	22...14

\*Overvoltage category III / Pollution severity 3

Color		black	green	
Poles	Type	Part No.	Part No.	Qty.
2	BL3.81/2/270	1798940000	1799010000	50
3	BL3.81/3/270	1798160000	1799020000	50
4	BL3.81/4/270	1798950000	1799030000	50
5	BL3.81/5/270	1798960000	1799040000	50
6	BL3.81/6/270	1798970000	1799050000	50
8	BL3.81/8/270	1798170000	1799060000	50
10	BL3.81/10/270	1798980000	1799070000	50
12	BL3.81/12/270	1798990000	1799080000	50
16	BL3.81/16/270	1799000000	1799090000	50

Color		black	green	
Poles	Type	Part No.	Part No.	Qty.
2	BL3.81/2/270F	1799100000	1799170000	50
3	BL3.81/3/270F	1798180000	1799180000	50
4	BL3.81/4/270F	1799110000	1799190000	50
5	BL3.81/5/270F	1799120000	1799200000	50
6	BL3.81/6/270F	1799130000	1799210000	50
8	BL3.81/8/270F	1798190000	1799220000	50
10	BL3.81/10/270F	1799140000	1799230000	50
12	BL3.81/12/270F	1799150000	1799240000	50
16	BL3.81/16/270F	1799160000	1799250000	50

Additional pole numbers on request

Additional pole numbers on request

Accessories

Direct printing on request

Accessories

Direct printing on request

**United States**

Weidmuller Inc.  
821 Southlake Blvd.  
Richmond, Virginia 23236  
Telephone: (800) 849-9343  
Facsimile: (804) 379-2593  
Email: [info@weidmuller.com](mailto:info@weidmuller.com)  
Website: [www.weidmuller.com](http://www.weidmuller.com)

**Canada**

Weidmuller Ltd.  
10 Spy Court  
Markham, Ontario L3R-5H6  
Telephone: (800) 268-4080  
Facsimile: (905) 475-2798  
Email: [info1@weidmuller.ca](mailto:info1@weidmuller.ca)  
Website: [www.weidmuller.ca](http://www.weidmuller.ca)

**Mexico**

Weidmuller, S.A. de C.V.  
5 Sur No. 4311  
Col. Huexotitla  
72534 Puebla, Pue. Mexico  
Telephone: (22) 37 2549  
Facsimile: (22) 43 1981  
Email: [weidmull@acnet.net](mailto:weidmull@acnet.net)

