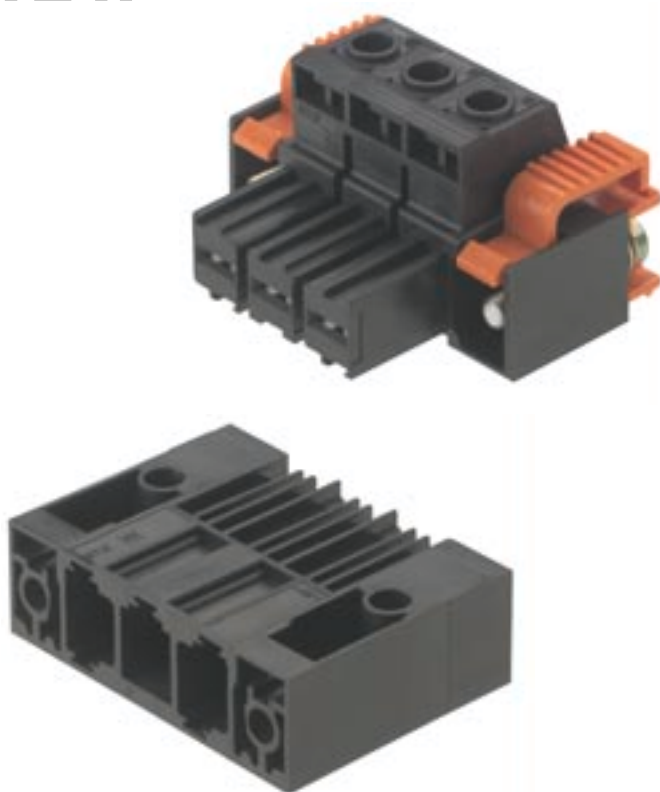


Printed circuit board connectors

Powermate Range – SV/BV 7.62

NEW



This new compact pcb connector system SV/BV 7.62 is an extension of our Powermate Range in 7.62 mm pitch. The outstanding feature of the SV/BV 7.62 is the high current load capacity in combination with small dimensions. A maximum cable size of 6 mm² enables up to 39A. Versatile accessories bring additional benefits.

Features:

- rated current up to 39A
- short term current load up to 360A
- $\leq 6 \text{ mm}^2$
- voltages up to 800V accord. to VDE, 300V accord. to UL 1059 group C
- multi-functional locking mechanism
- many coding possibilities
- incorrect-connection-proof

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Technical data / Derating curves

Materials

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

PBT
black
-55...+100
V-0
Cu-alloy
tin-plated

System characteristic values

Pitch	mm (inch)
Connection method	
Solder pin length	mm (inch)
PCB hole diameter D (wave-soldering)	Ø mm (inch)
Insulation stripping length	mm (inch)
Clamping screw	M
Insulation resistance	MΩ
Through resistance	mΩ
Torque	Nm

7.62 (0.300)
screw clamp
3.5 / 0.139
1.3 ^{+0.1} /0.051 ^{+0.004}
8
3
10 ⁵
0.55
0.5

Conductor size

Clamping range	mm ²
"e" solid H05(07) V-U	mm ²
multi-wire H07 V-R	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

0.22... 6.0
0.22... 6.0
0.5... 6.0
0.5... 6.0
0.5... 6.0
0.5... 4.0

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

6.0		
35		
III/3	III/2	II/2
500	630	800
6.0	6.0	6.0

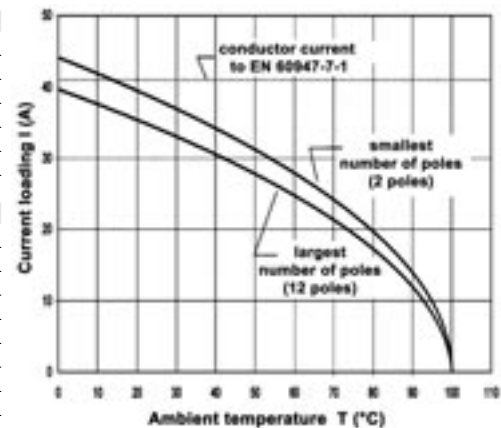
UL rated data

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

B	C	D
300	300	600
31	31	5
10		

Application notes

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

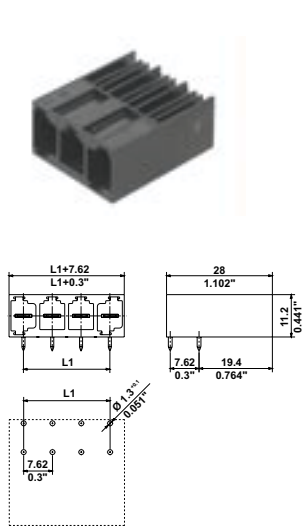


SV/BV 7.62
Conductor H057V-K6

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.

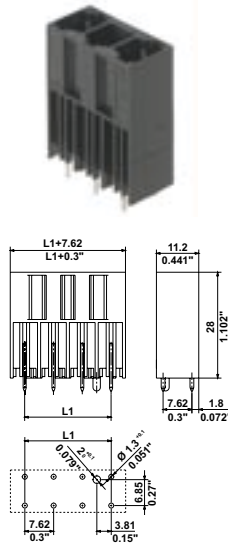
Weidmueller connectors are tested according to the DIN VDE 0627 standard, and are valid for its field of applications. Provided that the connectors are used for the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

Pin headers SV 7.62/90



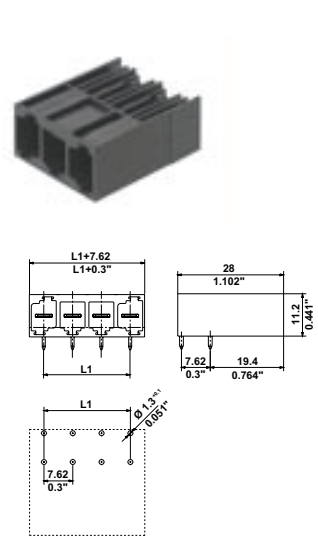
Solder pin length		3.5 mm	Dim. L1	Qty.
Colour	Type	Black		
Poles	Type	Cat. No.	mm (inch)	
2	SV 7.62/2/90	1822280000	7.62 (0.300)	50
3	SV 7.62/3/90	1822290000	15.24 (0.600)	50
4	SV 7.62/4/90	1822300000	22.86 (0.900)	50
5	SV 7.62/5/90	1822310000	30.48 (1.200)	20
6	SV 7.62/6/90	1822320000	38.10 (1.500)	20
7	SV 7.62/7/90	1822330000	45.72 (1.800)	20
8	SV 7.62/8/90	1822340000	53.34 (2.100)	20
9	SV 7.62/9/90	1822350000	60.96 (2.400)	20
10	SV 7.62/10/90	1822360000	68.58 (2.700)	20
11	SV 7.62/11/90	1822370000	76.20 (3.000)	20
12	SV 7.62/12/90	1822380000	83.82 (3.300)	20

Pin headers SV 7.62/180



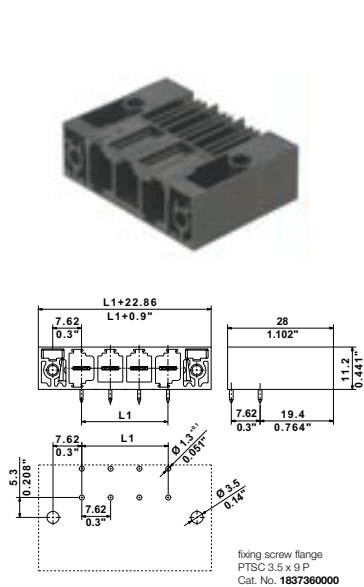
Solder pin length		3.5 mm	Dim. L1	Qty.
Colour	Type	Black		
Poles	Type	Cat. No.	mm (inch)	
2	SV 7.62/2/180	1822530000	7.62 (0.300)	50
3	SV 7.62/3/180	1822540000	15.24 (0.600)	50
4	SV 7.62/4/180	1822550000	22.86 (0.900)	50
5	SV 7.62/5/180	1822560000	30.48 (1.200)	20
6	SV 7.62/6/180	1822570000	38.10 (1.500)	20
7	SV 7.62/7/180	1822580000	45.72 (1.800)	20
8	SV 7.62/8/180	1822590000	53.34 (2.100)	20
9	SV 7.62/9/180	1822600000	60.96 (2.400)	20
10	SV 7.62/10/180	1822610000	68.58 (2.700)	20
11	SV 7.62/11/180	1822620000	76.20 (3.000)	20
12	SV 7.62/12/180	1822630000	83.82 (3.300)	20

Pin headers SV 7.62/270



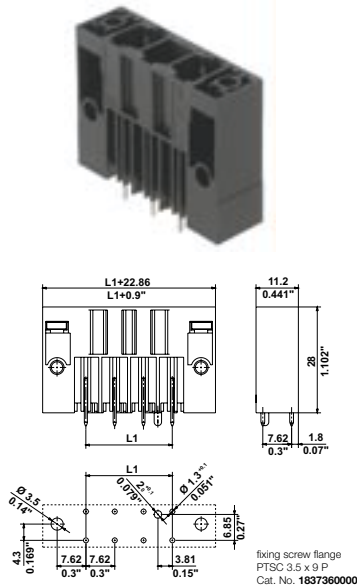
Solder pin length		3.5 mm	Dim. L1	Qty.
Colour	Type	Black		
Poles	Type	Cat. No.	mm (inch)	
2	SV 7.62/2/270	1822750000	7.62 (0.300)	50
3	SV 7.62/3/270	1822760000	15.24 (0.600)	50
4	SV 7.62/4/270	1822770000	22.86 (0.900)	50
5	SV 7.62/5/270	1822780000	30.48 (1.200)	20
6	SV 7.62/6/270	1822790000	38.10 (1.500)	20
7	SV 7.62/7/270	1822800000	45.72 (1.800)	20
8	SV 7.62/8/270	1822810000	53.34 (2.100)	20
9	SV 7.62/9/270	1822820000	60.96 (2.400)	20
10	SV 7.62/10/270	1822830000	68.58 (2.700)	20
11	SV 7.62/11/270	1822840000	76.20 (3.000)	20
12	SV 7.62/12/270	1822850000	83.82 (3.300)	20

Pin headers SV 7.62/90F



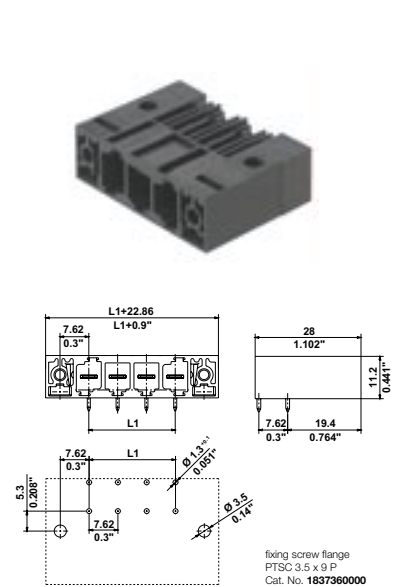
Solder pin length		3.5 mm	Dim. L1	Qty.
Colour	Type	Black		
Poles	Type	Cat. No.	mm (inch)	
2	SV 7.62/2/90F	1822390000	7.62 (0.300)	50
3	SV 7.62/3/90F	1822400000	15.24 (0.600)	50
4	SV 7.62/4/90F	1822410000	22.86 (0.900)	50
5	SV 7.62/5/90F	1822420000	30.48 (1.200)	20
6	SV 7.62/6/90F	1822430000	38.10 (1.500)	20
7	SV 7.62/7/90F	1822440000	45.72 (1.800)	20
8	SV 7.62/8/90F	1822450000	53.34 (2.100)	20
9	SV 7.62/9/90F	1822460000	60.96 (2.400)	20
10	SV 7.62/10/90F	1822470000	68.58 (2.700)	20
11	SV 7.62/11/90F	1822480000	76.20 (3.000)	20
12	SV 7.62/12/90F	1822490000	83.82 (3.300)	20

Pin headers SV 7.62/180F



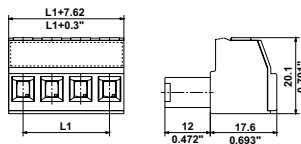
Solder pin length		3.5 mm	Dim. L1	Qty.
Colour	Type	Black		
Poles	Type	Cat. No.	mm (inch)	
2	SV 7.62/2/180F	1822640000	7.62 (0.300)	50
3	SV 7.62/3/180F	1822650000	15.24 (0.600)	50
4	SV 7.62/4/180F	1822660000	22.86 (0.900)	50
5	SV 7.62/5/180F	1822670000	30.48 (1.200)	20
6	SV 7.62/6/180F	1822680000	38.10 (1.500)	20
7	SV 7.62/7/180F	1822690000	45.72 (1.800)	20
8	SV 7.62/8/180F	1822700000	53.34 (2.100)	20
9	SV 7.62/9/180F	1822710000	60.96 (2.400)	20
10	SV 7.62/10/180F	1822720000	68.58 (2.700)	20
11	SV 7.62/11/180F	1822730000	76.20 (3.000)	20
12	SV 7.62/12/180F	1822740000	83.82 (3.300)	20

Pin headers SV 7.62/270F

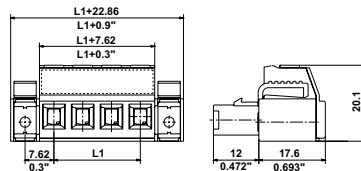


Solder pin length		3.5 mm	Dim. L1	Qty.
Colour	Type	Black		
Poles	Type	Cat. No.	mm (inch)	
2	SV 7.62/2/270F	1822860000	7.62 (0.300)	50
3	SV 7.62/3/270F	1822870000	15.24 (0.600)	50
4	SV 7.62/4/270F	1822880000	22.86 (0.900)	50
5	SV 7.62/5/270F	1822890000	30.48 (1.200)	20
6	SV 7.62/6/270F	1822900000	38.10 (1.500)	20
7	SV 7.62/7/270F	1822910000	45.72 (1.800)	20
8	SV 7.62/8/270F	1822920000	53.34 (2.100)	20
9	SV 7.62/9/270F	1822930000	60.96 (2.400)	20
10	SV 7.62/10/270F	1822940000	68.58 (2.700)	20
11	SV 7.62/11/270F	1822950000	76.20 (3.000)	20
12	SV 7.62/12/270F	1822960000	83.82 (3.300)	20

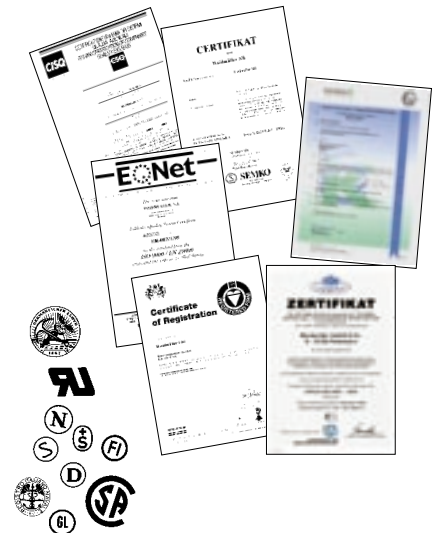
Socket blocks BV 7.62/180



Socket blocks BV 7.62/180F



Safety and approvals



Colour	Black	Dim. L1		
Poles	Type	Cat. No.	mm (inch)	Qty.
2	BVZB 7.62/2	1821520000	7.62 (0.300)	50
3	BVZB 7.62/3	1821530000	15.24 (0.600)	50
4	BVZB 7.62/4	1821540000	22.86 (0.900)	50
5	BVZB 7.62/5	1821550000	30.48 (1.200)	20
6	BVZB 7.62/6	1821560000	38.10 (1.500)	20
7	BVZB 7.62/7	1821570000	45.72 (1.800)	20
8	BVZB 7.62/8	1821580000	53.34 (2.100)	20
9	BVZB 7.62/9	1821590000	60.96 (2.400)	20
10	BVZB 7.62/10	1821600000	68.58 (2.700)	20
11	BVZB 7.62/11	1821610000	76.20 (3.000)	20
12	BVZB 7.62/12	1821620000	83.82 (3.300)	20

Colour	Black	Dim. L1		
Poles	Type	Cat. No.	mm (inch)	Qty.
2	BVZB 7.62/2F	1821630000	7.62 (0.300)	50
3	BVZB 7.62/3F	1821640000	15.24 (0.600)	50
4	BVZB 7.62/4F	1821650000	22.86 (0.900)	50
5	BVZB 7.62/5F	1821660000	30.48 (1.200)	20
6	BVZB 7.62/6F	1821670000	38.10 (1.500)	20
7	BVZB 7.62/7F	1821680000	45.72 (1.800)	20
8	BVZB 7.62/8F	1821690000	53.34 (2.100)	20
9	BVZB 7.62/9F	1821700000	60.96 (2.400)	20
10	BVZB 7.62/10F	1821710000	68.58 (2.700)	20
11	BVZB 7.62/11F	1821720000	76.20 (3.000)	20
12	BVZB 7.62/12F	1821730000	83.82 (3.300)	20

Product approvals up to 800V facilitate the approval of the final equipment. The products are finger-safe in the plugged state with rated cable, and hand-back-safe above the printed circuit board according to DIN EN 60529. The short-time current of 360A brings important possibilities.

Multifunctional locking



Simple workmanship saves time and with that costs. Via a simple press of the multi-functional locking mechanism a secured connection between plug and pin header is achieved. The pin header is designed so that a visual confirmation of this locking is possible.

Traditional screw fixing of the plug and pin header can also be achieved via the same locking mechanism. An additional version of the mechanism enables through-panel fixing.

Contacts



The socket block contacts are made from copper to provide the optimum conductivity. To guarantee a long service life, tin is used for the surface plating of the contacts. This provides for a higher number of mating cycles along with protection against degradation due to harsh atmospheric conditions. Four defined contact points supply the reserves for high strength.

Design



Secure connections, especially if high current and high voltage is used, prevent incorrect connection. During the conception of the connector housings, attention was paid particularly to maximum safety. Mis-mating prevention is designed into the plugs and pin headers. Each connection point can be double-coded thus dramatically improving the connection accuracy & security. The multi-functional locking mechanism enables many fixing variations of the plug and pin-header. For large sized cable connections in harsh applications the availability of added security features is a definite advantage.

- 2 to 12 poles
- 90°, 180°, 270° pin headers with and without fixing flanges
- anti-twist protection for the 180° pin header
- female connector with and without fixing flange
- screw clamp connection with plus-minus screws - tension clamp (in preparation)
- many coding possibilities
- multifunction locking mechanism