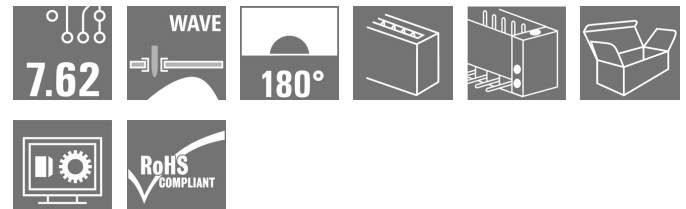


**OMNIMATE Power - series BV/SV 7.62HP
SV 7.62HP/04/180MF3 3.5SN BK BX**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Product image

Similar to illustration

180° male header with middle flange with a 7.62 pitch.
 Meets the requirements of IEC 61800-5-1 and enables
 UL approval as per UL840 600 V.

Without a female header, the mating profile guarantees
 minimum touch safety of >3 mm with 20 N pressure on
 the test finger.

The automatically locking middle flange which can
 optionally also be screwed, reduces space requirements
 by one pitch width in comparison with conventional
 solutions.

On request: available with screw flange or without flange.

General ordering data

Type	SV 7.62HP/04/180MF3 3.5SN BK BX
Order No.	1048530000
Version	PCB plug-in connector, male header, closed side, Middle flange, THT solder connection, 7.62 mm, Number of poles: 4, 180°, Solder pin length (l): 3.5 mm, tinned, black, Box
GTIN (EAN)	4032248786497
Qty.	48 pc(s).
Product data	IEC: 1000 V / 57 A UL: 300 V / 40.5 A
Packaging	Box

Creation date May 1, 2020 11:30:32 AM CEST

**OMNIMATE Power - series BV/SV 7.62HP
SV 7.62HP/04/180MF3 3.5SN BK BX**

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Technical data**Dimensions and weights**

Height	31.8 mm	Height (inches)	1.252 inch
Height of lowest version	28.3 mm	Depth	11.4 mm
Depth (inches)	0.449 inch	Net weight	9.65 g

System specifications

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Outgoing elbow	180°
Number of poles	4	Number of solder pins per pole	2
Solder pin length (l)	3.5 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Tolerance of solder pin position	± 0.1 mm	Solder pin dimensions	0.8 x 1.0 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)	+0,1 mm
L1 in mm	30.48 mm	L1 in inches	1.2 inch
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Touch-safe above the printed circuit board	Touch-safe protection acc. to DIN VDE 0470	IP 20
Volume resistance	2.00 mΩ	Can be coded	Yes
Plugging cycles	25		

Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Layer structure of solder connection	1-3 μm Ni / 4-6 μm Sn matt	Layer structure of plug contact	1-3 μm Ni / 4-6 μm Sn matt
Storage temperature, min.	-25 °C	Storage temperature, max.	50 °C
Max. relative humidity during storage	70 %	Operating temperature, min.	-50 °C
Operating temperature, max.	130 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	130 °C		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	57 A
Rated current, max. number of poles (Tu=20°C)	41 A	Rated current, min. number of poles (Tu=40°C)	41 A
Rated current, max. number of poles (Tu=40°C)	41 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	630 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 420 A
Clearance, min.	6.9 mm	Creepage distance, min.	9.6 mm

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Technical data**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA)	300 V
Rated voltage (Use group D / CSA)	600 V
Rated current (Use group C / CSA)	35 A

Rated voltage (Use group C / CSA)	300 V
Rated current (Use group B / CSA)	35 A
Rated current (Use group D / CSA)	5 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)	300 V
Rated voltage (Use group D / UL 1059)	600 V
Rated current (Use group C / UL 1059)	40.5 A

Rated voltage (Use group C / UL 1059)	300 V
Rated current (Use group B / UL 1059)	40.5 A
Rated current (Use group D / UL 1059)	5 A
Creepage distance, min.	9.6 mm

Clearance distance, min.

6.9 mm

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Packing

Packaging	Box	VPE length	80 mm
VPE width	95 mm	VPE height	160 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02		

Notes

Notes

- Additional colours on request
- Rated current related to rated cross-section & min. No. of poles.
- P on drawing = 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.
- MFX and MSFX: X= Position of the middle flange e.g. MF2, MSF3

IPC conformity

Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

Data sheet

**OMNIMATE Power - series BV/SV 7.62HP
SV 7.62HP/04/180MF3 3.5SN BK BX**

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Technical data

Approvals

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of
Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

- [FL DRIVES EN](#)
- [MB DEVICE MANUF. EN](#)
- [FL DRIVES DE](#)
- [CAT 2 PORTFOLIOGUIDE EN](#)
- [FL HEATING ELECTR EN](#)
- [FL APPL INVERTER EN](#)
- [FL_BASE_STATION_EN](#)
- [FL ELEVATOR EN](#)
- [FL POWER SUPPLY EN](#)
- [FL 72H SAMPLE SER EN](#)
- [PO OMNIMATE EN](#)

Engineering Data

[EPLAN, WSCAD](#)

Engineering Data

[SV.zip](#)

White paper power electronics
connected correctly

[Download Whitepaper](#)

White paper UL 600 V

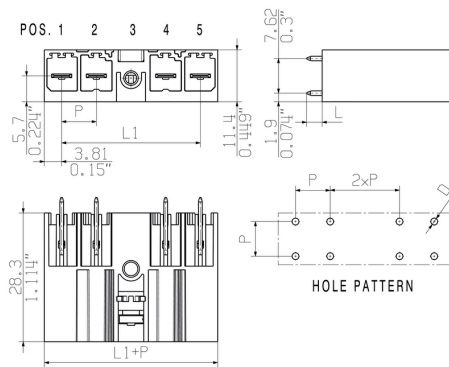
[Download Whitepaper](#)

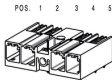
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Drawings

Dimensional drawing



6	M(S)F6	o	o	o	o	o	X	o
6	M(S)F5	o	o	o	o	X	o	o
6	M(S)F4	o	o	o	X	o	o	o
6	M(S)F3	o	o	X	o	o	o	o
6	M(S)F2	o	X	o	o	o	o	o
5	M(S)F5	o	o	o	o	X	o	
5	M(S)F4	o	o	o	X	o	o	
5	M(S)F3	o	o	X	o	o	o	
5	M(S)F2	o	X	o	o	o	o	
4	M(S)F4	o	o	o	X	o		
4	M(S)F3	o	o	X	o	o		
4	M(S)F2	o	X	o	o	o		
3	M(S)F3	o	o	X	o			
3	M(S)F2	o	X	o	o			
2	M(S)F2	o	X	o				
NO OF POLES	X = MIDDLE FLANGE POSITION	1	2	3	4	5	6	7
								

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Mating connector (conditionally pluggable)
BVF 7.62HP/180MSF


180° female header with PUSH IN connection technology for field wiring in 6 mm² with 7.62 pitch.

Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1. Ideal touch-safe solution for the power output.

The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

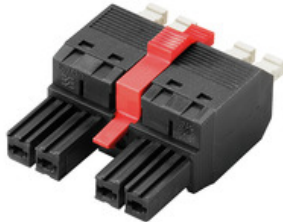
Variants: without flange, external flange, middle flange with detent fastening and optionally additional screw mount.

General ordering data

Type	BVF 7.62HP/04/180MSF3 S ... Version	Product data	Packaging
Order No.	1060670000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	Box
GTIN (EAN)	4032248809585	180°, PUSH IN, Clamping range, max.: 10 mm ² , Box	UL: 600 V / 39 A / AWG 24 - AWG 8
Qty.	40 pc(s).		

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Mating connector (fully pluggable)
BVFL 7.62HP/180MF


180° female plug with PUSH IN connection system with adjustable actuator (pusher) for field wiring 6 mm² in a 7.62 pitch. Meets the requirements of UL 1059 600 V Class C ad IEC 61800-5-1. Also ideal as a touch-safe solution for the power output. The self-locking middle flange which can optionally also be screwed, reduces the space requirements by one pitch width in comparison with conventional solutions. Variants: without flange, external flange, middle flange with snap-on mechanism and optionally additional screw mount

General ordering data

Type	BVFL 7.62HP/04/180MF3 S ...	Version	Product data	Packaging
Order No.	1547540000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 41 A / 0.5 - 6 mm ²	Box
GTIN (EAN)	4050118353310	180°, PUSH IN with actuator, Clamping range, max. : 6 mm ² , Box	UL: 600 V / 39 A / AWG 24 - AWG 8	
Qty.	48 pc(s).			

BVF 7.62HP/180MF


180° female header with PUSH IN connection technology for field wiring in 6 mm² with 7.62 pitch. Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1. Ideal touch-safe solution for the power output. The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions. Variants: without flange, external flange, middle flange with detent fastening and optionally additional screw mount.

General ordering data

Type	BVF 7.62HP/04/180MF3 SN ...	Version	Product data	Packaging
Order No.	1201710000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 57 A / 0.5 - 10 mm ²	Box
GTIN (EAN)	4032248984442	180°, PUSH IN, Clamping range, max. : 10 mm ² , Box	UL: 600 V / 39 A / AWG 24 - AWG 8	
Qty.	40 pc(s).			
Type	BVF 7.62HP/04/180MF3 SN ...	Version	Product data	Packaging
Order No.	1060590000	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 57 A / 0.5 - 10 mm ²	Box
GTIN (EAN)	4032248809950	180°, PUSH IN, Clamping range, max. : 10 mm ² , Box	UL: 600 V / 39 A / AWG 24 - AWG 8	
Qty.	40 pc(s).			

Data sheet

OMNIMATE Power - series BV/SV 7.62HP SV 7.62HP/04/180MF3 3.5SN BK BX

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Accessories

Coding elements



**Only connects what is supposed to be connected:
the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

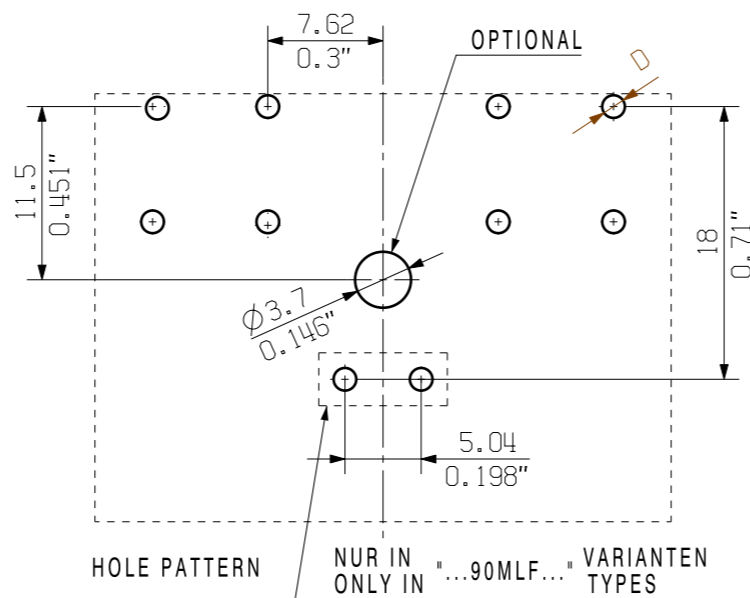
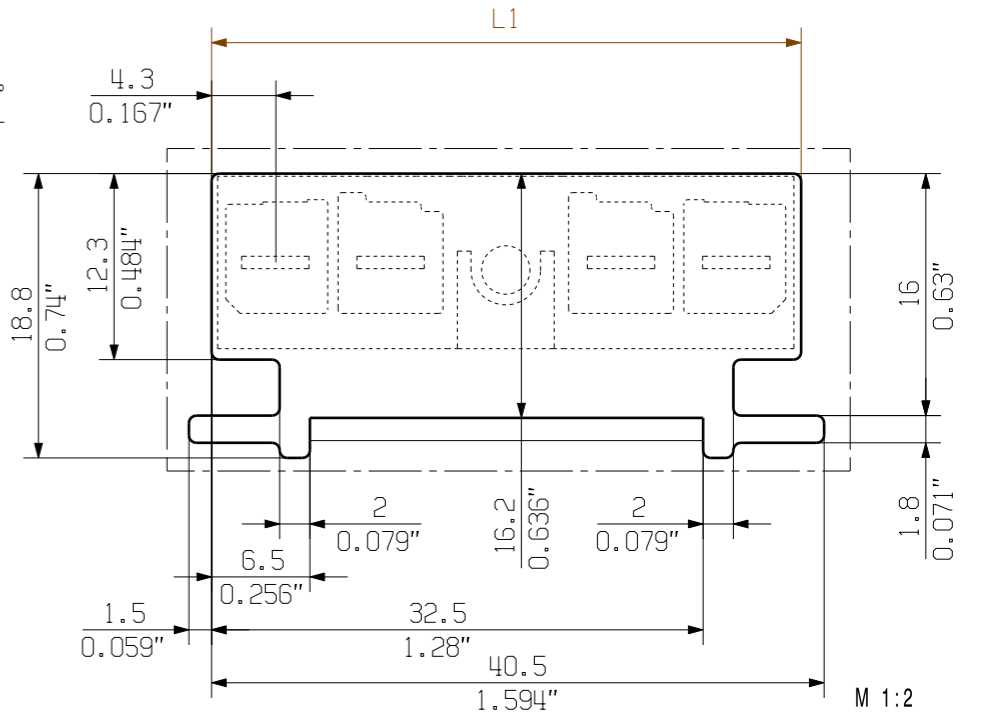
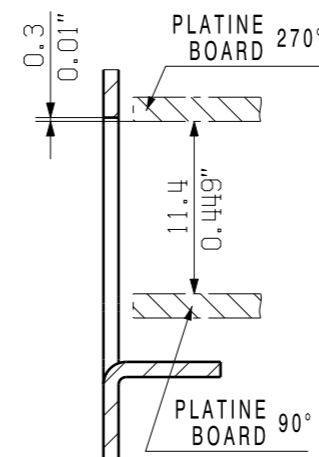
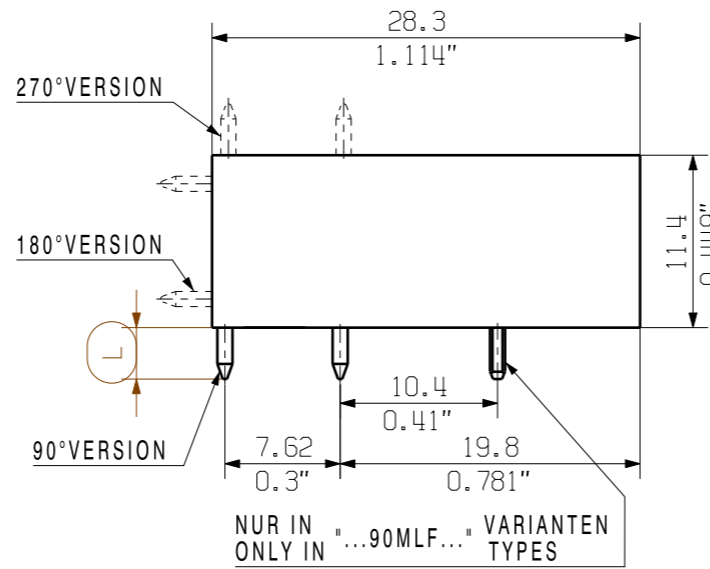
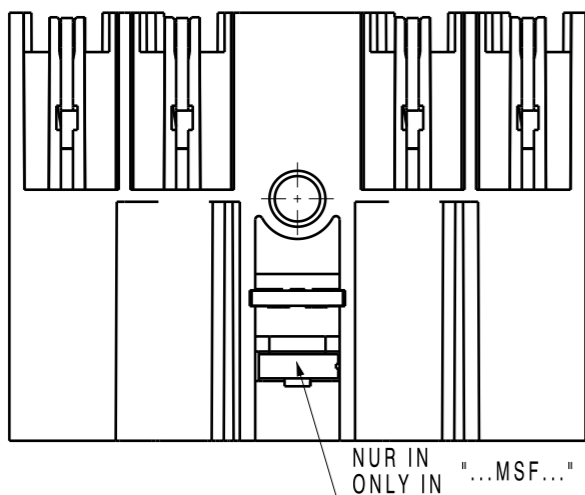
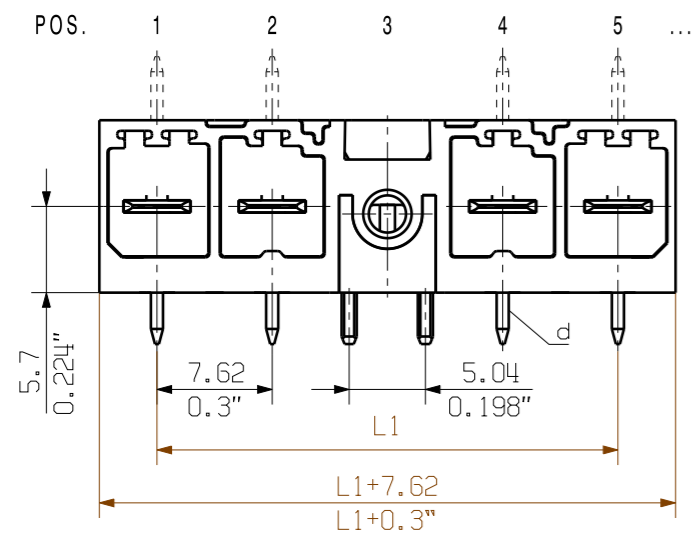
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

Type	BV/SV 7.62HP KO	Version	Product data	Packaging
Order No.	1937590000	PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1		Box
GTIN (EAN)	4032248608881			
Qty.	50 pc(s).			
Type	VDS180 SV7.62	Version	Product data	Packaging
Order No.	1853940000	PCB plug-in connector, Accessories, black, Number of poles: 1		Box
GTIN (EAN)	4032248389513			
Qty.	50 pc(s).			

allgemeingültige Kundenzeichnung, aktueller Stand nur auf Anfrage /
general customer drawing, topical version only if required

SHOWN: SV 7.62HP/04/90MSF



D=Ø1.3
d=0.8x1.0

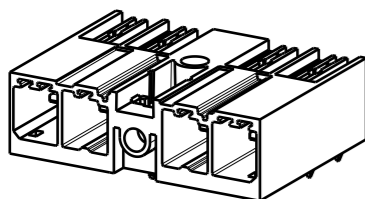
MF= Mittelflansch
middle flange
MSF= Mittelschraubflansch
middle flange with screw
MLF= Mittellötflansch
middle solder flange

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.
The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.
The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

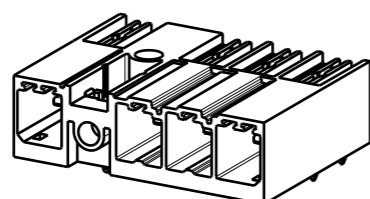
Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application.
Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermal and corrosive stress will be satisfied.

SV 7.62HP/08/...M(S/L)F5	8	60.92	2.34						MF									
SV 7.62HP/06/...M(S/L)F6										MF								
SV 7.62HP/06/...M(S/L)F5											MF							
SV 7.62HP/06/...M(S/L)F4	6	45.72	1.80								MF							
SV 7.62HP/06/...M(S/L)F3												MF						
SV 7.62HP/06/...M(S/L)F2													MF					
SV 7.62HP/05/...M(S/L)F5														MF				
SV 7.62HP/05/...M(S/L)F4	5	38.10	1.50												MF			
SV 7.62HP/05/...M(S/L)F3																MF		
SV 7.62HP/05/...M(S/L)F2																	MF	
SV 7.62HP/04/...M(S/L)F4																		MF
SV 7.62HP/04/...M(S/L)F3	4	30.48	1.20															
SV 7.62HP/04/...M(S/L)F2																		
SV 7.62HP/03/...M(S/L)F3																		
SV 7.62HP/03/...M(S/L)F2	3	22.86	0.90															
SV 7.62HP/02/...M(S/L)F2	2	15.24	0.60															
description	n no of poles	L1 [mm]	L1 [inch]	position MF														

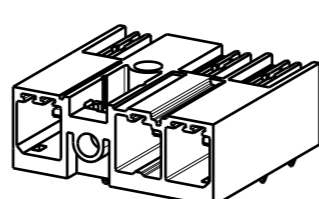
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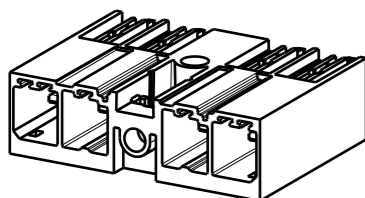
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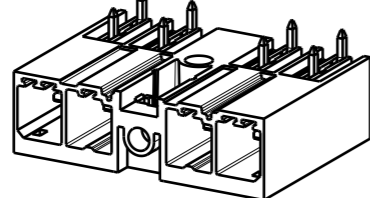
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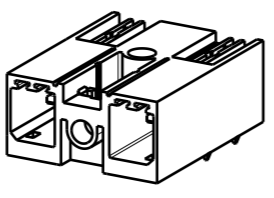
M 1:1 SV 7.62HP/04/180MF...



M 1:1 SV 7.62HP/04/270MF...



M 1:1 SV 7.62HP/02/90MF...



3.5	+0.1
	-0.3
Stiftlänge/ pin length L	Toleranz/ tolerance

GENERAL TOLERANCE:
DIN ISO 2768-m



Scale: 2:1
Supersedes: .

100459/5
12.06.18 HELIS_MA 00

Modification

Drawn	24.02.2009	HELIS_MA
Responsible		KRUG_M
Checked	10.07.2018	HERTEL_S
Approved		LANG_T

Weidmüller

Cat.no.: .

3 49530 19

Drawing no. Issue no.
Sheet 01 of 01 sheets

SV 7.62HP...M(S/L)F...
STIFTLISTE
MALE HEADER

Product file: SV/BVZ 7.62HP

7340

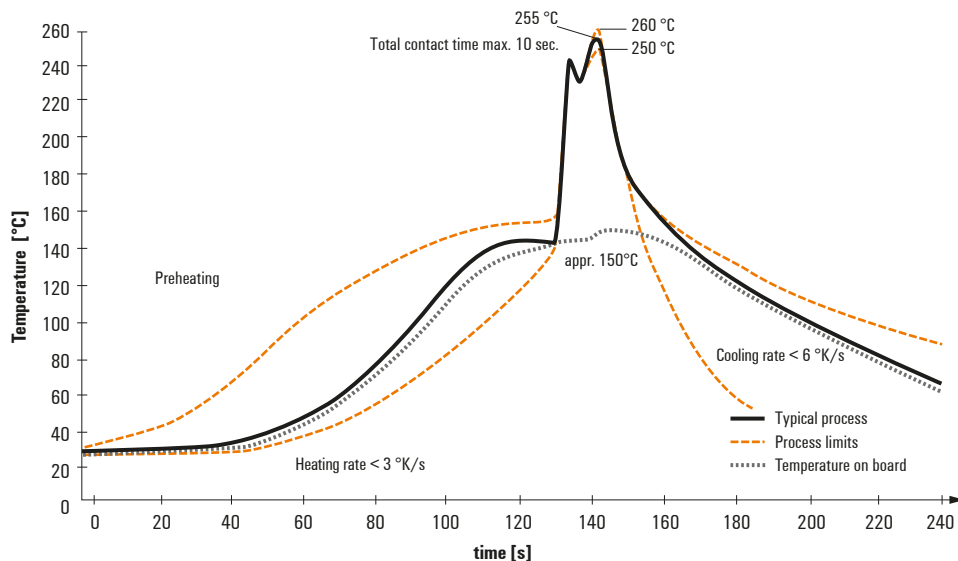
Recommended wave soldering profiles

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Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.