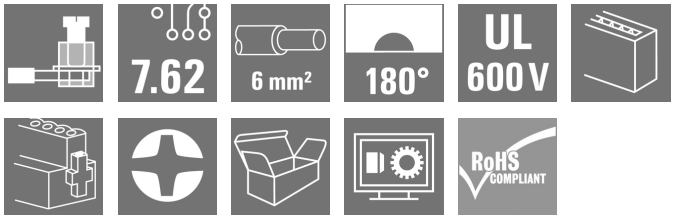
BVZ 7.62HP/03/180SFC SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image



High-performance female header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, protection against faulty wiring, 4-point contact. Suitable for labelling.

General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, Clamping yoke connection, Clamping range, max. : 10 mm², Box
Order No.	1929750000
Type	BVZ 7.62HP/03/180SFC SN BK BX
GTIN (EAN)	4032248579525
Qty.	100 pc(s).
Product data	IEC: 1000 V / 57 A / 0.2 - 10 mm² UL: 600 V / 40.5 A / AWG 24 - AWG 8
Packaging	Box

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Technical data

Dimensions and weights

Depth	42.1 mm	Depth (inches)	1.657 inch
Height	23.1 mm	Height (inches)	0.909 inch
Width	38.1 mm	Width (inches)	1.5 inch
Net weight	20.13 g		

System Parameters

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	15.24 mm
L1 in inches	0.6 "	Number of rows	1
Pin series quantity	1	Rated cross-section	6 mm²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Protection degree	IP20	Volume resistance	4.50 mΩ
Can be coded	Yes	Stripping length	12 mm
Tightening torque for screw flange, min.	0.2 Nm	Tightening torque for screw flange, max.	0.3 Nm
Tightening torque, min.	0.5 Nm	Tightening torque, max.	0.6 Nm
Clamping screw	M 3	Screwdriver blade	0.6 x 3.5
Plugging cycles	25	Plugging force/pole, max.	16.5 N
Pulling force/pole, max.	11 N		

Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	UL 94 flammability rating	V-0
Contact base material	Copper alloy	Contact material	Copper alloy
Contact surface	tinned	Layer structure of plug contact	6...8 µm Sn glossy
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	125 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	100 °C

Conductors suitable for connection

Clamping range, min.	0.2 mm²
Clamping range, max.	10 mm²
Wire connection cross section AWG, min.	AWG 24
Wire connection cross section AWG, max.	AWG 8
Solid, min. H05(07) V-U	0.2 mm²
Solid, max. H05(07) V-U	6 mm²
Flexible, min. H05(07) V-K	0.2 mm²
Flexible, max. H05(07) V-K	10 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	6 mm²
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm²
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm²

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Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 mm		
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	H0,5/18 OR
	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm²
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire-end ferrule	H1,0/18 GE
	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm²
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire-end ferrule	H1,5/18D SW
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H1,5/12
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	H0,75/18 W
	Cross-section for conductor connection	Type	fine-wired
		nominal	2.5 mm²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	H2,5/19D BL
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H2,5/12
	Cross-section for conductor connection	Type	fine-wired
		nominal	4 mm²
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H4,0/12
		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	H4,0/20D GR
	Cross-section for conductor connection	Type	fine-wired
		nominal	6 mm²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	H6,0/20 SW
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H6,0/12
Reference text	The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage.		

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Technical data

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)	54 A	Rated current, min. number of poles (Tu=40°C)	51 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	1,000 V	Rated voltage for surge voltage class / pollution degree III/3	800 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6,000 V	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	8 kV	Short-time withstand current resistance	3 x 1s with 420 A
Clearance, min.	10.2 mm	Creepage distance, min.	13.8 mm

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1534443
Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	40.5 A
Rated current (Use group C / CSA)	40.5 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 8
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)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V	Rated voltage (Use group F / UL 1059)	1,000 V
Rated current (Use group B / UL 1059)	40.5 A	Rated current (Use group C / UL 1059)	40.5 A
Rated current (Use group D / UL 1059)	5 A	Rated current (Use group F / UL 1059)	40.5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 8
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	351 mm
VPE width	134 mm	VPE height	141 mm

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Technical data

Type tests

Test: Durability of markings	Standard	DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96
	Test	mark of origin, type identification, pitch, type of material
	Evaluation	available
	Test	durability
	Evaluation	passed
Test: Misengagement (Non-interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 512 part 7 section 5 / 05.94
	Test	180° turned with coding elements
	Evaluation	passed
	Test	180° turned without coding elements
	Evaluation	passed
Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02
	Conductor type	Type of conductor and conductor cross-section: solid 0.5 mm²
		Type of conductor and conductor cross-section: stranded 0.5 mm²
		Type of conductor and conductor cross-section: solid 6 mm²
		Type of conductor and conductor cross-section: stranded 6 mm²
		Type of conductor and conductor cross-section: AWG 24/1
		Type of conductor and conductor cross-section: AWG 24/19
		Type of conductor and conductor cross-section: AWG 10/1
		Type of conductor and conductor cross-section: AWG 10/19
	Evaluation	passed

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Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm²
		Type of conductor and conductor cross-section	stranded 0.5 mm²
	Evaluation	passed	
	Requirement	1.4 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 6 mm²
		Type of conductor and conductor cross-section	stranded 6 mm²
		Type of conductor and conductor cross-section	AWG 10/1
		Type of conductor and conductor cross-section	AWG 10/19
	Evaluation	passed	
Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm²
		Type of conductor and conductor cross-section	stranded 0.5 mm²
	Evaluation	passed	
	Requirement	≥80 N	
	Conductor type	Type of conductor and conductor cross-section	solid 6 mm²
		Type of conductor and conductor cross-section	stranded 6 mm²
		Type of conductor and conductor cross-section	AWG 10/1
		Type of conductor and conductor cross-section	AWG 10/19
	Evaluation	passed	

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Technical data

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 9.0	27-44-03-09
ECLASS 9.1	27-44-03-09	ECLASS 10.0	27-44-03-09
ECLASS 11.0	27-46-02-02	ECLASS 12.0	27-46-02-02
ECLASS 13.0	27-46-02-02	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

Important note

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.
Notes	• Additional variants on request • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule with plastic collar to DIN 46228/4 • Wire end ferrule without plastic collar to DIN 46228/1 • 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. • In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

Approvals	
Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

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Technical data

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Product Change Notification	PCN_2016_138_PL33_Redesign_BVZ_762HP_Abstandshalter_DE PCN_2016_138_PL33_Redesign_BVZ_762HP_outside_pole_spacer_EN PCN_2016_275_PL33_plugable_SIBL_EN PCN_2016_275_PL33_Steckbare_SIBL_DE 20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors 20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder Packing change of BVZ 7.62HP and SVZ 7.62HP Änderung der Verpackung BVZ 7.62HP und SVZ 7.62HP
User Documentation	QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE 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 PO OMNIMATE EN

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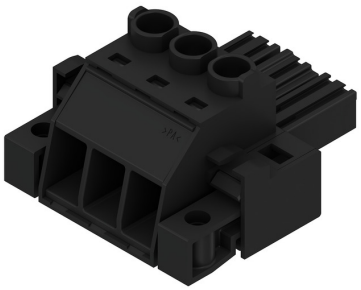
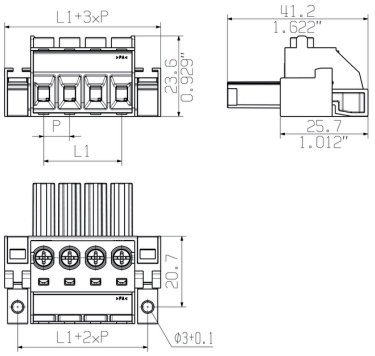
Drawings

Product image



Dimensional drawing



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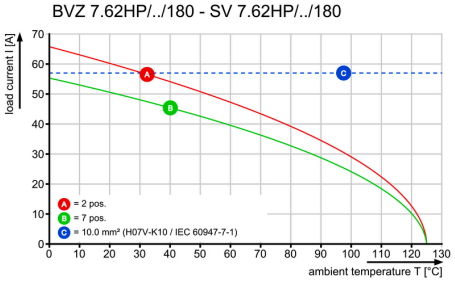

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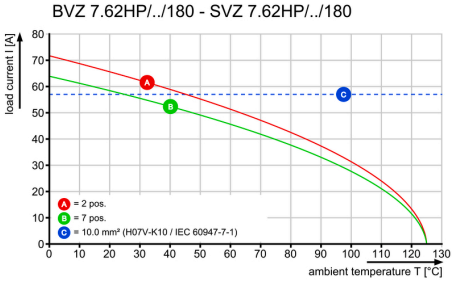

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Accessories

Adapters for rail mounting

The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.
OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.
The three product lines offer you further advantages:
- Application-oriented scalability: from the compact 4 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:
Design your individual connectors simply by using the

General ordering data

Type	BV/SV7.62HP MOFU GR	Version	Product data	Packaging
Order No.	1937600000	PCB plug-in connector, Accessories, Mounting foot, Light Grey		Box
GTIN (EAN)	4032248608898			
Qty.	100 pc(s).			
Type	BV/SV 7.62HP/02 ARPL GR	Version	Product data	Packaging
Order No.	1937570000	PCB plug-in connector, Accessories, Mounting plate, grey, Number of		Box
GTIN (EAN)	4032248608850	poles: 2		
Qty.	50 pc(s).			
Type	BV/SV 7.62HP/04 ARPL GR	Version	Product data	Packaging
Order No.	1937580000	PCB plug-in connector, Accessories, Mounting plate, grey, Number of		Box
GTIN (EAN)	4032248608867	poles: 4		
Qty.	50 pc(s).			

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Accessories

Strain reliefs

For frequent load changes: the "trailer coupling" for plug-in connectors.
The strain relief can do more than just relieve the strain on conductors:
Simply clip onto the plug and
- bundle conductors
- guide cables
- use as a connection and disconnection aid

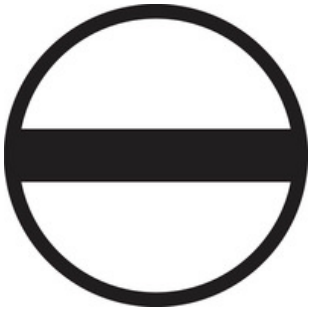
No damage to the connecting points, clear, tidy wiring and easy to handle.
User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

General ordering data

Type	BV/SV 7.62HP/02 ZE GR	Version	Product data	Packaging
Order No.	1937550000	PCB plug-in connector, Accessories, Strain relief, Light Grey, Number of poles: 2		Box
GTIN (EAN)	4032248608836			
Qty.	50 pc(s).			

Type	BV/SV 7.62HP/04 ZE GR	Version	Product data	Packaging
Order No.	1937560000	PCB plug-in connector, Accessories, Strain relief, Light Grey, Number of poles: 4		Box
GTIN (EAN)	4032248608843			
Qty.	50 pc(s).			

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

Type	SDIS 0.8X4.0X100	Version
Order No.	9008400000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056361	
Qty.	1 pc(s).	

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Accessories

Crimping tools

Crimping tools for wire end ferrules, with and without plastic collars
- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

General ordering data

Type	PZ 6/5	Version
Order No.	9011460000	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm², 6mm²,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 pc(s).	

Crosshead screwdriver Phillips

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

General ordering data

Type	SDK PH1	Version
Order No.	9008480000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056477	
Qty.	1 pc(s).	

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Accessories

Crosshead screwdriver Phillips

VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

General ordering data

Type	SDIK PH1	Version
Order No.	9008570000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056569	
Qty.	1 pc(s).	

Coding elements

The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.
OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.
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- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:
Design your individual connectors simply by using the

General ordering data

Type	BV/SV 7.62HP KO RD 2022	Version	Product data	Packaging
Order No.	2007300000	PCB plug-in connector, Accessories, Coding element, red, Number of		Box
GTIN (EAN)	4050118392715	poles: 1		
Qty.	20 pc(s).			

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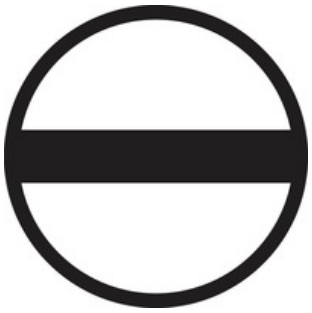
Accessories

Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

Type	SDS 0.8X4.5X125	Version
Order No.	9009020000	Screwdriver, Screwdriver
GTIN (EAN)	4032248266883	
Qty.	1 pc(s).	

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Dimensions without tolerances are no check dimensions

The English version is binding

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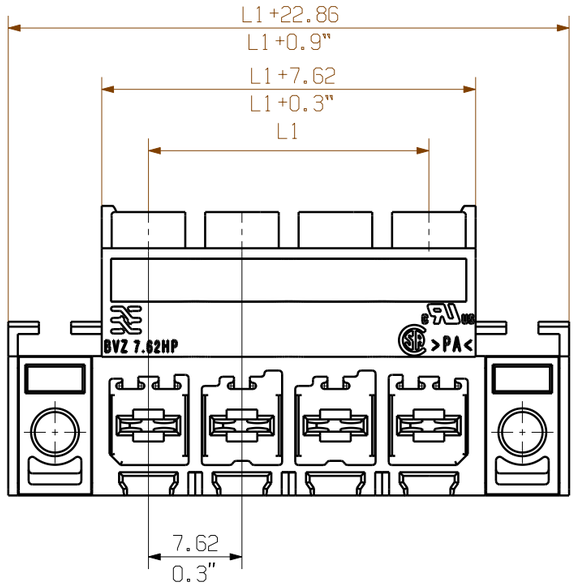

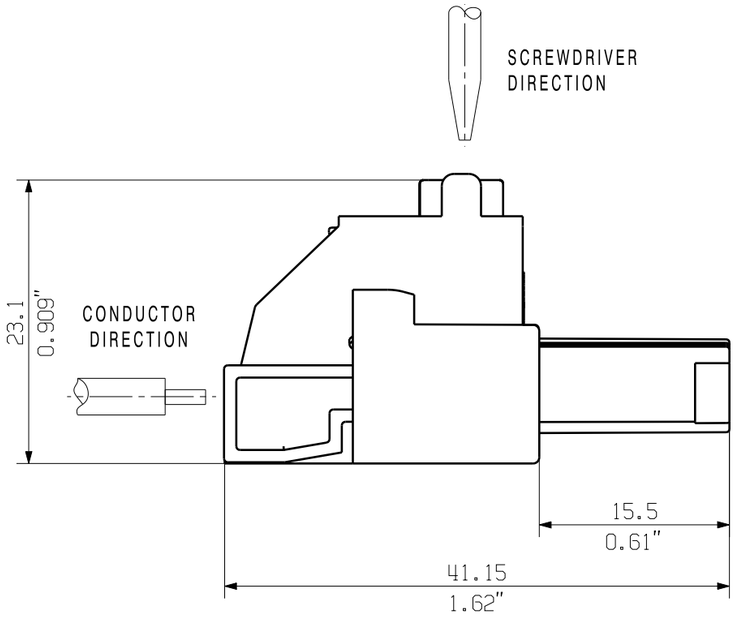

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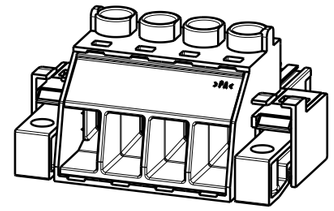
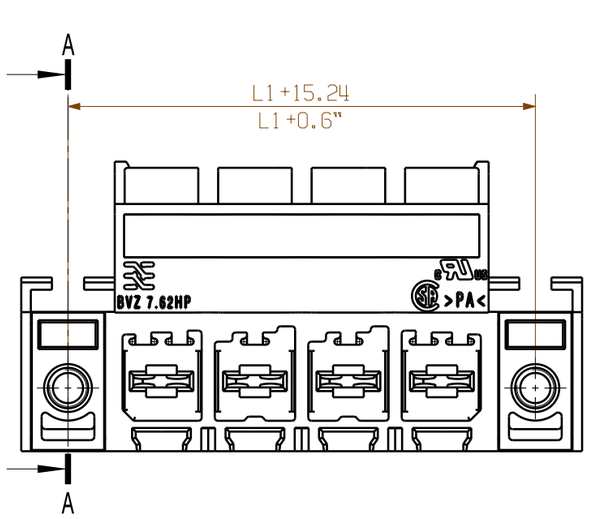
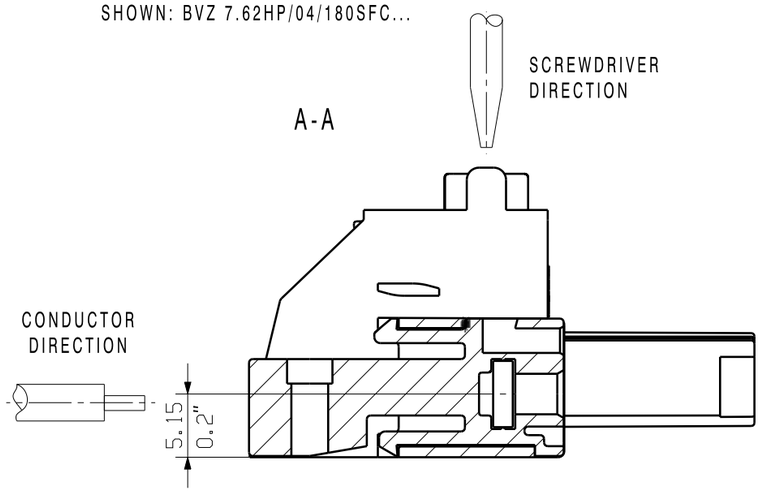
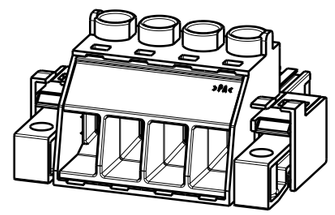


SHOWN: BVZ 7.62HP/04/180SFC...





M 1:1



n POLZAHL POLES	L1 [mm]	L1 [inch]
12	83.82	3.3
11	76.20	3.0
10	68.58	2.7
9	60.96	2.4
8	53.34	2.1
7	45.72	1.8
6	38.10	1.5
5	30.48	1.2
4	22.86	0.9
3	15.24	0.6
2	7.62	0.3

ALLGEMEINGUELTIGE KUNDENZEICHNUNG, AKTUELLER STAND NUR AUF ANFRAGE
GENERAL CUSTOMER DRAWING, TOPICAL VERSION ONLY IF REQUIRED

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

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

GENERAL TOLERANCE:
DIN ISO 2768-mK

RoHS COMPLIANT

100963/5
11.01.18 HELIS_MA 01
.
Modification

Cat.no.: .

Weidmüller

3 42182 03
Drawing no. Issue no.

Sheet 01 of 01 sheets

		Date	Name
	Drawn	09.01.2007	NEUMANN_G
	Responsible		KRUG_M
Scale: 2:1	Checked	02.02.2018	HELIS_MA
Supersedes: .	Approved		LANG_T

BVZ 7.62HP/...FC

BUCHSENLEISTE
SOCKET CONNECTOR

Product file: SV/BVZ 7.62 7340