

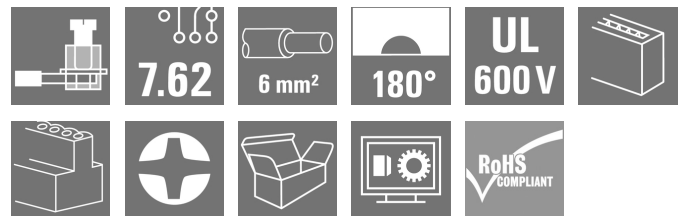
BVZ 7.62HP/03/180RSH210 SN BK BX**Weidmüller Interface GmbH & Co. KG**

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.	1933430000
Type	BVZ 7.62HP/03/180RSH210 SN BK BX
GTIN (EAN)	4032248585816
Qty.	50 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

Creation date July 3, 2024 9:38:42 AM CEST

Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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Technical data**Dimensions and weights**

Depth	80.3 mm	Depth (inches)	3.161 inch
Height	25 mm	Height (inches)	0.984 inch
Width	38.1 mm	Width (inches)	1.5 inch
Net weight	36.06 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 mm ²
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 mm ²
Clamping range, max.	10 mm ²
Wire connection cross section AWG, min.	AWG 24
Wire connection cross section AWG, max.	AWG 8
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	6 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	10 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm ²

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Technical data

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 mm ²	
	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 mm ²	
	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 mm ²	
	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 mm ²	
	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 mm ²	
	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 mm ²	
	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 mm ²	
	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 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	336 mm
VPE width	150 mm	VPE height	89 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 solid 0.5 mm ² conductor cross-section
		Type of conductor and stranded 0.5 mm ² conductor cross-section
		Type of conductor and solid 6 mm ² conductor cross-section
		Type of conductor and stranded 6 mm ² conductor cross-section
		Type of conductor and AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
		Type of conductor and AWG 10/1 conductor cross-section
		Type of conductor and AWG 10/19 conductor cross-section
	Evaluation	passed

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Technical data

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 AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
	Evaluation	passed
	Requirement	0.3 kg
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
		Type of conductor and stranded 0.5 mm ² conductor cross-section
	Evaluation	passed
	Requirement	1.4 kg
Pull-out test	Conductor type	Type of conductor and solid 6 mm ² conductor cross-section
		Type of conductor and stranded 6 mm ² conductor cross-section
	Conductor type	Type of conductor and AWG 10/1 conductor cross-section
		Type of conductor and AWG 10/19 conductor cross-section
	Evaluation	passed
	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥10 N
	Conductor type	Type of conductor and AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
	Evaluation	passed
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
		Type of conductor and stranded 0.5 mm ² conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and solid 6 mm ² conductor cross-section
		Type of conductor and stranded 6 mm ² conductor cross-section
	Conductor type	Type of conductor and AWG 10/1 conductor cross-section
		Type of conductor and AWG 10/19 conductor cross-section
	Evaluation	passed
	Requirement	≥80 N

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Technical data

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	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

Environmental Product Compliance

REACH SVHC

/

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



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

BVZ 7.62HP/03/180RSH210 SN BK BX**Weidmüller Interface GmbH & Co. KG**

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www.weidmueller.com**Technical data****Downloads**Approval/Certificate/Document of Con-
formity[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](#)[Umstellung der Rändelschraube bei den Produktfamilien BVZ 7.62HP; BVDF 7.62HP und SVZ 7.62HP](#)[Change of the knurled screw for the BVZ 7.62HP; BVDF 7.62HP and SVZ 7.62HP product families](#)

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](#)

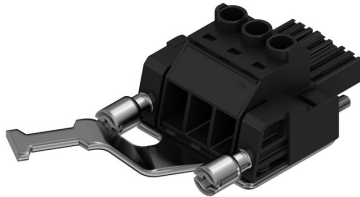
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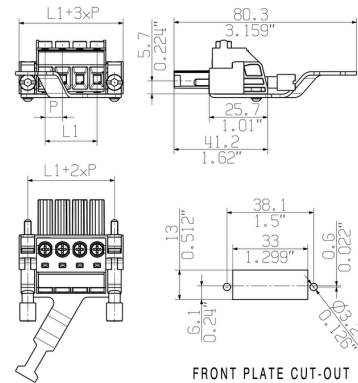
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Drawings

Product image



Dimensional drawing



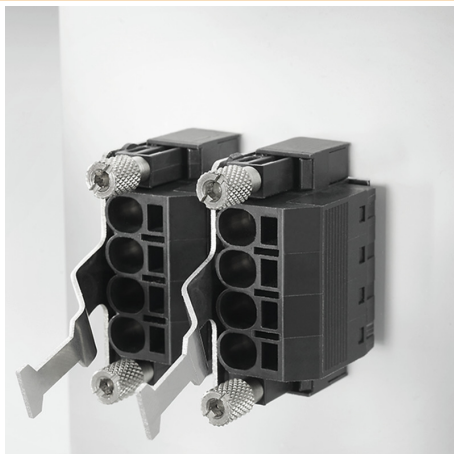
Graph



Graph



Product benefits



Safe shielding
Reliable and space-saving

BVZ 7.62HP/03/180RSH210 SN BK BX**Weidmüller Interface GmbH & Co. KG**

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www.weidmueller.com**Accessories****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).	

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).	

BVZ 7.62HP/03/180RSH210 SN BK BX

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Accessories

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.

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/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).			

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, 0.25mm ² , 6mm ² ,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 pc(s).	

BVZ 7.62HP/03/180RSH210 SN BK BX**Weidmüller Interface GmbH & Co. KG**

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www.weidmueller.com**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

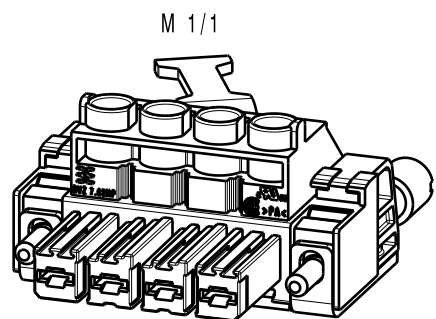
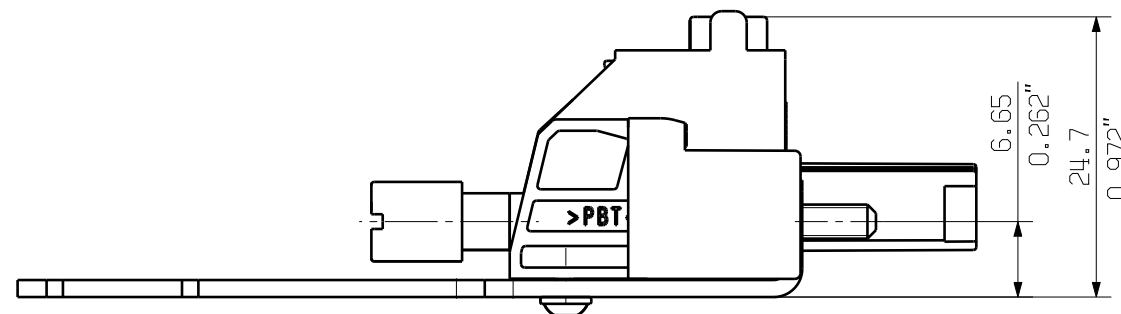
Type	SDIK PH1	Version
Order No.	9008570000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056569	
Qty.	1 pc(s).	

Slotted screwdriver

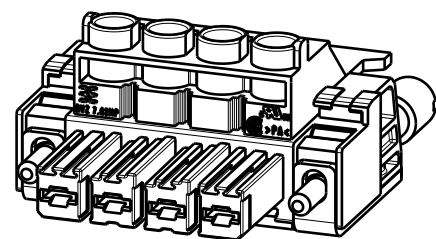
VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

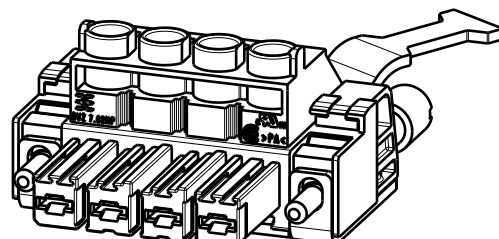
Type	SDIS 0.8X4.0X100	Version
Order No.	9008400000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056361	
Qty.	1 pc(s).	



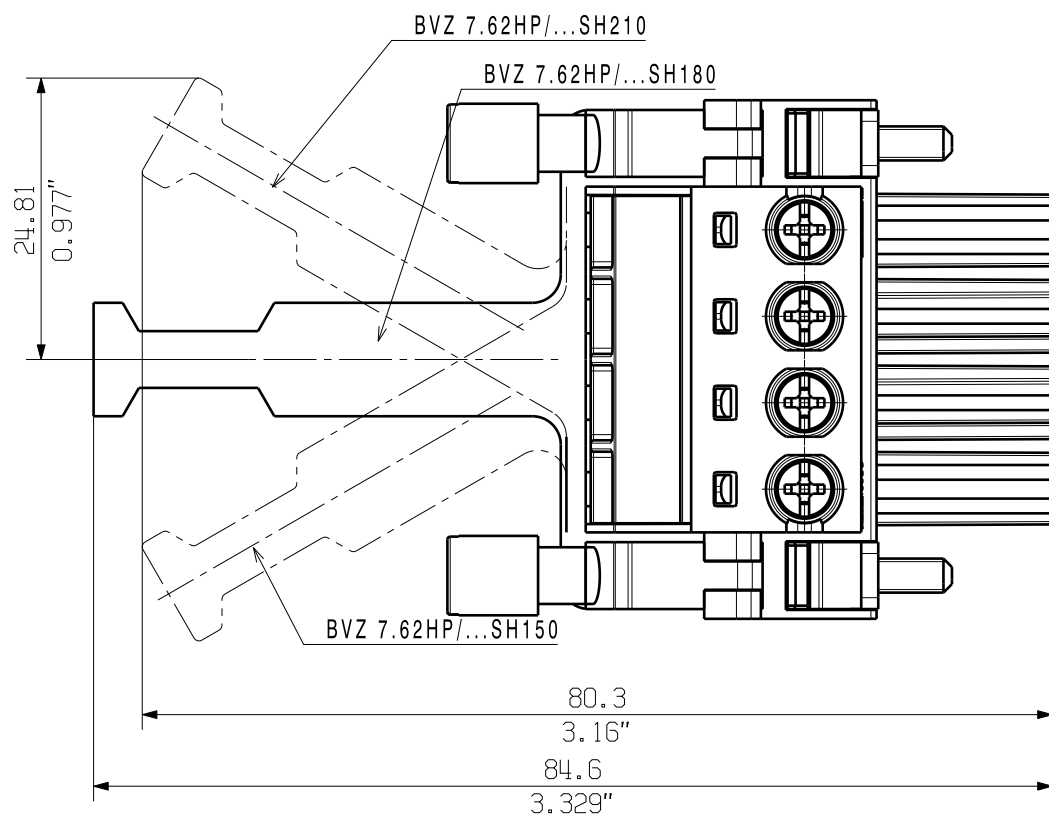
BVZ 7.62HP/...SH150



BVZ 7.62HP/...SH180



BVZ 7.62HP/...SH210



n=POLZAHL/ NO OF POLES
P=RASTER/PITCH

6	38,10	1,50	45,72	1,80	53,34	2,10	60,96	2,40
5	30,48	1,20	38,10	1,50	45,72	1,80	53,34	2,10
4	22,86	0,90	30,48	1,20	38,10	1,50	45,72	1,80
3	15,24	0,60	22,86	0,90	30,48	1,20	38,10	1,50
n	L1 (mm)	L1 (Inch)	L2 (mm)	L2 (Inch)	L3 (mm)	L3 (Inch)	L4 (mm)	L4 (Inch)

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance with 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 VDE 0627 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, thermic and corrosive stress will be satisfied.



DIN ISO 2768-m

90775/5	01
12 11 10 KRUH M	

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Weidmüller 

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Drawing no.	Issue no.
Sheet 01	of 02 sheets

	Date	Name
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Drawn	16.01.2007	NEUMANN G
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Responsible	KRUG M
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Checked	21.11.2016	HERTEL S
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Approved		LANG T
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Scale: 1.5:1

Supersedes: .

BVZ 7.62HP/...SH
BUCHSENSTECKER
FEMALE PLUG

Product file: SV/BVZ 7.62

7340