

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

#### **Product image**















1











Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range.

High-performance female header for applications up to 12 kVA:

- 29 A with 400 V (IEC)
- 20 A at 600 V (UL)
- 0.08 4 mm<sup>2</sup> / AWG 28 12

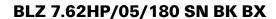
Assisting in device approval:

- Meets the requirements of 600 V according to UL 508 / UL 840.
- When plugged, meets the increased requirements on touch safety as per IEC 68100-5-1

The slimming diet for multiple-stage device series: Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

#### General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm,
	Number of poles: 5, 180°, Clamping yoke connec-
	tion, Clamping range, max.: 4 mm <sup>2</sup> , Box
Order No.	<u>1049010000</u>
Туре	BLZ 7.62HP/05/180 SN BK BX
GTIN (EAN)	4032248786985
Qty.	50 items
Product data	IEC: 630 V / 29 A / 0.2 - 4 mm <sup>2</sup>
	UL: 600 V / 20 A / AWG 20 - AWG 12
Packaging	Box





#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

# **Technical data**

Aр	pr	ov	al	S
----	----	----	----	---

Approvals	c <b>Fl</b> us
ROHS	Conform
UL File Number Search	<u>UL Website</u>
Certificate No. (cURus)	E60693

#### **Dimensions and weights**

Depth	23.3 mm	Depth (inches)	0.9173 inch
Height	18.3 mm	Height (inches)	0.7205 inch
Width	37.38 mm	Width (inches)	1.4717 inch
Net weight	10.72 g		

#### **Environmental Product Compliance**

RoHS Compliance Status	Compliant without exemption	
REACH SVHC	No SVHC above 0.1 wt%	
Product Carbon Footprint	Cradle to gate	0.197 kg CO2eq.

#### **System Parameters**

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.300 "	Conductor outlet direction	180°
Number of poles	5	L1 in mm	30.48 mm
L1 in inches	1.200 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm <sup>2</sup>
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	5.00 mΩ
Can be coded	Yes	Stripping length	7 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping screw	M 2.5	Screwdriver blade	0.6 x 3.5
Screwdriver blade standard	DIN 5264	Plugging cycles	25
Plugging force/pole, max.	9.5 N	Pulling force/pole, max.	8.5 N

### **Material data**

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	Illa
Comparative Tracking Index (CTI)	≥ 200	Insulation resistance	≥ 108 Ω
Moisture Level (MSL)		UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	tinned
Layer structure of plug contact	48 µm Sn hot-dip tinned	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

#### **Conductors suitable for connection**

Clamping range, min.	0.08 mm <sup>2</sup>	
Clamping range, max.	4 mm <sup>2</sup>	

Creation date 29.11.2025 04:41:47 MEZ





Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

# **Technical data**

Wire connection cross section AWG,	AWG 28		
min.			
Wire connection cross section AWG, max.	AWG 12		
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>		
Solid, max. H05(07) V-U	4 mm²		
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>		
Flexible, max. H05(07) V-K	4 mm <sup>2</sup>		
w. plastic collar ferrule, DIN 46228 pt			
min.			
w. plastic collar ferrule, DIN 46228 pt max.	4, 2.5 mm²		
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm <sup>2</sup>		
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm²		
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.4 mm		
Clampable conductor	Cross-section for conductor connection	Туре	fine-wired
-		nominal	0.25 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-	H0,25/12 HBL
	Cross-section for conductor connection	Туре	fine-wired
	Gross section for conductor connection	nominal	0.34 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 10 mm
	wire end lerrule	Recommended wire-	H0,34/12 TK
		end ferrule	110,34/ 12 TK
	Cross-section for conductor connection	Туре	fine-wired
	Orosa section for conductor connection	nominal	0.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 6 mm
	wire end ferrule	Recommended wire-	H0,5/6
	Cross-section for conductor connection	Type	fine-wired
	Closs-section for conductor connection	nominal	0.75 mm <sup>2</sup>
	wire end ferrule		
	wire end terrule	Stripping length Recommended wire-	nominal 6 mm H0,75/6
		end ferrule	по,75/6
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 6 mm
		Recommended wire- end ferrule	H1,0/6
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire-	H1,5/7
		end ferrule	
	Cross-section for conductor connection	Туре	fine-wired
		nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire- end ferrule	H2,5/7
Reference text	The outside diameter of the plastic collar shows is to be chosen depending on the product and		tch (P), Length of ferrule





Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

# **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)	29 A
Rated current, max. number of poles (Tu=20°C)	26.5 A	Rated current, min. number of poles (Tu=40°C)	25 A
Rated current, max. number of poles (Tu=40°C)	23 A	Rated voltage for surge voltage class / pollution degree II/2	630 V
Rated voltage for surge voltage class / pollution degree III/2	500 V	Rated voltage for surge voltage class / pollution degree III/3	400 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 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 180 A
Creepage distance, min.	11.3 mm	Clearance, min.	9.8 mm

#### Rated data acc. to CSA

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)	20 A
Rated current (Use group C / CSA)	20 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 12

#### Rated data acc. to UL 1059

Institute (cURus)	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 current (Use group B / UL 1059)	20 A
Rated current (Use group C / UL 1059)	20 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details -		

#### **Packing**

Packaging	Вох	VPE length	228.00 mm
VPE width	133.00 mm	VPE height	49.00 mm

### 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, date clock	
	Evaluation	available	
	Test	durability	
	Evaluation	passed	
Test: Misengagement (Non- interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02	
	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 solid 0.5 mm <sup>2</sup> and conductor cross-section	

Creation date 29.11.2025 04:41:47 MEZ



#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

# **Technical data**

		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor solid 2.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 2.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor AWG 20/1 and conductor cross-section	
		Type of conductor AWG 20/19 and conductor cross-section	
		Type of conductor AWG 12/1 and conductor cross-section	
		Type of conductor AWG 12/19 and conductor cross-section	
	Evaluation	passed	
Test for damage to and accidental	Standard	DIN EN 60999-1 section 9.4 / 12.00	
loosening of conductors	Requirement	0.2 kg	
	Conductor type	Type of conductor AWG 28/1 and conductor cross-section	
		Type of conductor AWG 28/19 and conductor cross-section	
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor H05V-U0.5 and conductor cross-section	
		Type of conductor H05V-K0.5 and conductor cross- section	
	Evaluation	passed	
	Requirement	0.7 kg	
	Conductor type	Type of conductor AWG 14/1 and conductor cross-section	
		Type of conductor AWG 14/19 and conductor cross-section	
	Evaluation	passed	
	Requirement	0.9 kg	
	Conductor type	Type of conductor H07V-U4.0 and conductor cross-section	
		Type of conductor H07V-K4.0 and conductor cross-section	
	Evaluation	passed	
Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	>5 N	
	Conductor type	Type of conductor AWG 28/1 and conductor cross-section	
		Type of conductor AWG 28/19 and conductor cross-section	

Creation date 29.11.2025 04:41:47 MEZ



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

## **Technical data**

Evaluation	passed	
Requirement	≥20 N	
Conductor type	Type of conductor and conductor cross-section	H05V-U0.5
	Type of conductor and conductor cross-section	H05V-K0.5
Evaluation	passed	
Requirement	≥50 N	
Conductor type	Type of conductor and conductor cross-section	AWG 14/1
	Type of conductor and conductor cross-section	AWG 14/19
	Type of conductor and conductor cross-section	H07V-K4.0
Evaluation	passed	
Requirement	≥60 N	
Conductor type	Type of conductor and conductor cross-section	H07V-U4.0
Evaluation	passed	

#### 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
- · Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- 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
- $\bullet$  Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

#### 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		

Creation date 29.11.2025 04:41:47 MEZ



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

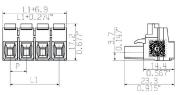
www.weidmueller.com

# **Drawings**

### **Product image**



### **Dimensional drawing**



Graph Graph

