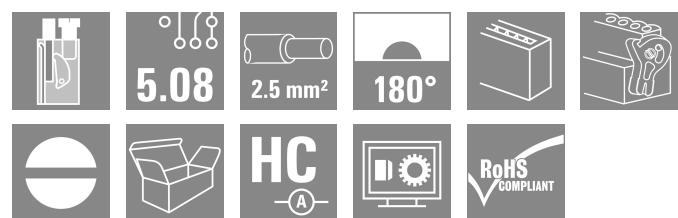


BLT 5.08HC/10/180LR SN OR BX

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

www.weidmueller.com

Product image

Female plugs with TOP screw connection system for connecting wires with straight wire outlet and release latch mechanism. The female connectors provide space for labelling and can be coded. HC = High Current.

General ordering data

Version	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10, 180°, TOP connection, Clamping range, max. : 2.5 mm ² , Box
Order No.	1890300000
Type	BLT 5.08HC/10/180LR SN OR BX
GTIN (EAN)	4032248498789
Qty.	30 items
Product data	IEC: 400 V / 27 A / 0.2 - 2.5 mm ² UL: 300 V / 17 A / AWG 26 - AWG 14
Packaging	Box

BLT 5.08HC/10/180LR SN OR BX

Weidmüller Interface GmbH & Co. KG
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Germany

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Technical data

Approvals

Approvals



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

Dimensions and weights

Depth	31.8 mm	Depth (inches)	1.252 inch
Height	15.1 mm	Height (inches)	0.5945 inch
Width	60.62 mm	Width (inches)	2.3866 inch
Net weight	30 g		

Environmental Product Compliance

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

System Parameters

Product family	OMNIMATE Signal - series BL/SL 5.08		
Type of connection	Field connection		
Wire connection method	TOP connection		
Pitch in mm (P)	5.08 mm		
Pitch in inches (P)	0.200 "		
Conductor outlet direction	180°		
Number of poles	10		
L1 in mm	45.72 mm		
L1 in inches	1.800 "		
Number of rows	1		
Pin series quantity	1		
Rated cross-section	2.5 mm ²		
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch		
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged		
Protection degree	IP20		
Volume resistance	≤5 mΩ		
Can be coded	Yes		
Stripping length	13 mm		
Clamping screw	M 2.5		
Screwdriver blade	0.6 x 3.5		
Screwdriver blade standard	DIN 5264		
Plugging cycles	25		
Plugging force/pole, max.	8 N		
Pulling force/pole, max.	7 N		
Tightening torque	Torque type	Wire connection	
	Usage information	Tightening torque	min. 0.4 Nm
			max. 0.5 Nm

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa

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Technical data

Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of plug contact	4...8 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.	0.13 mm^2
Clamping range, max.	2.5 mm^2
Wire connection cross section AWG, min.	AWG 28
Wire connection cross section AWG, max.	AWG 14
Solid, min. H05(07) V-U	0.2 mm^2
Solid, max. H05(07) V-U	2.5 mm^2
Flexible, min. H05(07) V-K	0.2 mm^2
Flexible, max. H05(07) V-K	2.5 mm^2
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm^2 min.	
w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm^2 max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm^2
w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm^2
Plug gauge in accordance with EN 60999 a x b; \varnothing	2.4 mm x 1.5 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
Reference text		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H1.5/12

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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Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	27 A
Rated current, max. number of poles (Tu=20°C)	19 A	Rated current, min. number of poles (Tu=40°C)	24 A
Rated current, max. number of poles (Tu=40°C)	16 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V

BLT 5.08HC/10/180LR SN OR BX

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Technical data

Rated impulse voltage for surge voltage 4 kV
class/ pollution degree II/2

Rated impulse voltage for surge voltage 4 kV
class/ contamination degree III/3

Rated impulse voltage for surge voltage 4 kV
class/ pollution degree III/2

Short-time withstand current resistance 3 x 1s with 100 A

Rated data acc. to CSA

Rated voltage (Use group B / CSA) 300 V

Rated current (Use group B / CSA) 15 A

Wire cross-section, AWG, min. AWG 26

Rated voltage (Use group D / CSA) 300 V

Rated current (Use group D / CSA) 15 A

Wire cross-section, AWG, max. AWG 14

Rated data acc. to UL 1059

Institute (cURus) CURUS

Rated voltage (Use group B / UL 1059) 300 V

Rated current (Use group B / UL 1059) 17 A

Wire cross-section, AWG, min. AWG 26

Reference to approval values Specifications are maximum values, details - see approval certificate.

Certificate No. (cURus) E60693

Rated voltage (Use group D / UL 1059) 300 V

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, max. AWG 14

Packing

Packaging Box

VPE width 136.00 mm

VPE length 351.00 mm

VPE height 39.00 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 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, DIN EN 60512-13-5 / 11.06
	Test	180° turned with coding elements
	Evaluation	passed
	Test	visual examination
	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 0.08 mm ² and conductor cross-section
		Type of conductor stranded 0.08 mm ² and conductor cross-section
		Type of conductor solid 2.5 mm ² and conductor cross-section
		Type of conductor stranded 2.5 mm ² and conductor cross-section
		Type of conductor AWG 26/1 and conductor cross-section
		Type of conductor AWG 26/19 and conductor cross-section

BLT 5.08HC/10/180LR SN OR BX

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Technical data

Test for damage to and accidental loosening of conductors	Evaluation	Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 14/19
	Evaluation	passed	
	Standard	DIN EN 60999-1 section 9.4 / 12.00	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm ²
		Type of conductor and conductor cross-section	stranded 0.5 mm ²
Pull-out test	Evaluation	passed	
	Requirement	0.7 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm ²
		Type of conductor and conductor cross-section	stranded 2.5 mm ²
	Evaluation	Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 14/19
	Evaluation	passed	
	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥5 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 26/19
		Type of conductor and conductor cross-section	solid 0.5 mm ²
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	stranded 0.5 mm ²
		Type of conductor and conductor cross-section	AWG 14/1
	Evaluation	passed	
	Requirement	≥40 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 14/1

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Technical data

	Type of conductor and conductor cross-section	AWG 14/19
Evaluation	passed	
Requirement	≥50 N	
Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm ²
	Type of conductor and conductor cross-section	stranded 2.5 mm ²
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	<ul style="list-style-type: none"> 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 Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes. 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

Classifications

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

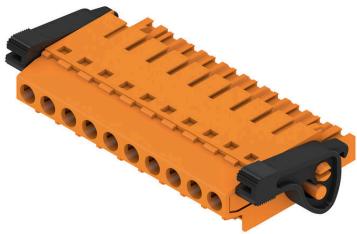
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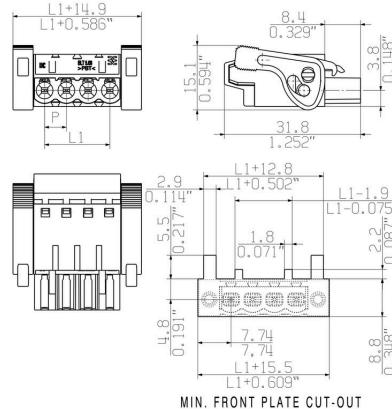
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Drawings

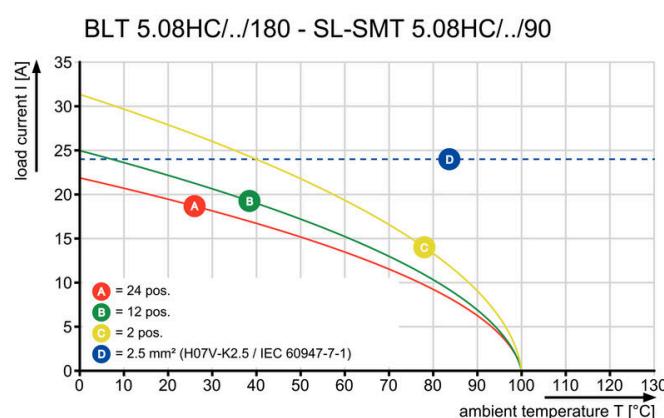
Product image



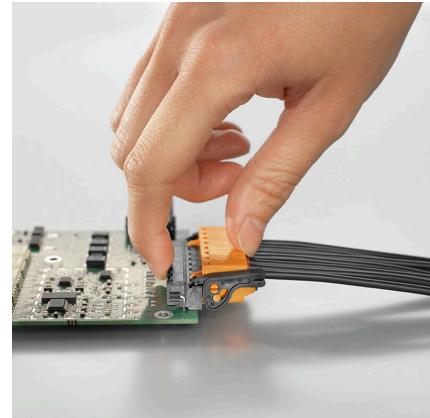
Dimensional drawing



Graph

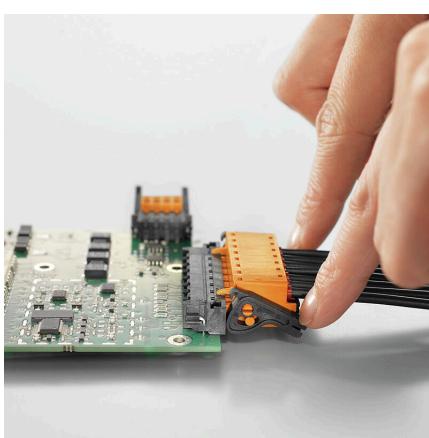


Product benefits



Self-locking Immediately on plugging in

Product benefits



Gentle unlocking Low mechanical stress

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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	BLZ/SL KO BK BX	Version
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4008190087142	of poles: 1
Qty.	50 ST	
Type	BLZ/SL KO OR BX	Version
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4008190048396	of poles: 1
Qty.	100 ST	

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

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	BLAT ZE04 OR BX	Version
Order No.	1577980000	PCB plug-in connector, Accessories, Strain relief, orange, Number of
GTIN (EAN)	4008190078249	poles: 4
Qty.	50 ST	
Type	BLAT ZE08 OR BX	Version
Order No.	1578010000	PCB plug-in connector, Accessories, Strain relief, orange, Number of
GTIN (EAN)	4008190003753	poles: 8
Qty.	50 ST	

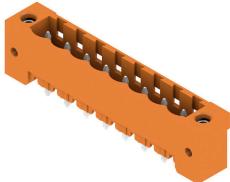
BLT 5.08HC/10/180LR SN OR BX

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Counterpart

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SL 5.08HC/180F

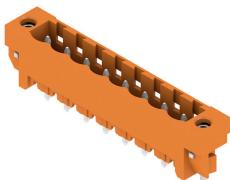


Pin headers in glass-fibre-reinforced plastic with straight wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

General ordering data

Type	SL 5.08HC/10/180F 3.2SN...	Version
Order No.	1148720000	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248931309	5.08 mm, Number of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box
Qty.	30 ST	
Type	SL 5.08HC/10/180F 3.2SN...	Version
Order No.	1147380000	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248931408	5.08 mm, Number of poles: 10, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Qty.	30 ST	

SL 5.08HC/180LF



Pin headers in glass-fibre-reinforced plastic with straight wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

General ordering data

Type	SL 5.08HC/10/180LF 3.2S...	Version
Order No.	1149490000	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248932696	connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length
Qty.	30 ST	(l): 3.2 mm, tinned, black, Box
Type	SL 5.08HC/10/180LF 3.2S...	Version
Order No.	1148150000	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248931842	connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length
Qty.	30 ST	(l): 3.2 mm, tinned, orange, Box

BLT 5.08HC/10/180LR SN OR BX

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Counterpart

SL 5.08HC/90F



Pin headers made from glass-fibre-reinforced plastic with 90° wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

General ordering data

Type	SL 5.08HC/10/90F 3.2SN ...	Version
Order No.	1150180000	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248936328	5.08 mm, Number of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
Qty.	30 ST	
Type	SL 5.08HC/10/90F 3.2SN ...	Version
Order No.	1148880000	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248935840	5.08 mm, Number of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Qty.	30 ST	

SL 5.08HC/90LF



Pin headers made from glass-fibre-reinforced plastic with 90° wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

General ordering data

Type	SL 5.08HC/10/90LF 3.2SN...	Version
Order No.	1150430000	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248937042	connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, black, Box
Type	SL 5.08HC/10/90LF 3.2SN...	Version
Order No.	1149640000	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248936366	connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, orange, Box

BLT 5.08HC/10/180LR SN OR BX

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Counterpart

SL-SMT 5.08/180F Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.08HC/10/180F 3...	Version
Order No.	1820780000	PCB plug-in connector, male header, Flange, THT/THR solder
GTIN (EAN)	4032248317646	connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length
Qty.	30 ST	(I): 3.2 mm, tinned, black, Box

SL-SMT 5.08/180LF Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.08HC/10/180LF ...	Version
Order No.	1776442001	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248159321	connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length
Qty.	30 ST	(I): 1.5 mm, tinned, black, Box
Type	SL-SMT 5.08HC/10/180LF ...	Version
Order No.	1838520000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248348589	connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length
Qty.	30 ST	(I): 3.2 mm, tinned, black, Box

SL-SMT 5.08HC/90F Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

BLT 5.08HC/10/180LR SN OR BX

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Counterpart

General ordering data

Type	SL-SMT 5.08HC/10/90F 3...	Version
Order No.	1837710000	PCB plug-in connector, male header, Flange, THT/THR solder
GTIN (EAN)	4032248347520	connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, black, Box

SL-SMT 5.08HC/90LF Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.08HC/10/90LF 1...	Version
Order No.	1775312001	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248157297	connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (l):
Qty.	30 ST	1.5 mm, tinned, black, Box
Type	SL-SMT 5.08HC/10/90LF 3...	Version
Order No.	1780490000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248165810	connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (l):
Qty.	30 ST	3.2 mm, tinned, black, Box

SLDV-THR 5.08/180F



High-temperature resistant, double level, laterally offset, male connector with flange or solder flange. 1.5 mm solder pin is suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Type	SLDV-THR 5.08/20/180F 1...	Version
Order No.	1828970000	PCB plug-in connector, male header, Flange, THT/THR solder
GTIN (EAN)	4032248335664	connection, 5.08 mm, Number of poles: 20, 180°, Solder pin length
Qty.	16 ST	(l): 1.5 mm, tinned, black, Box
Type	SLDV-THR 5.08/20/180F 3...	Version
Order No.	1828850000	PCB plug-in connector, male header, Flange, THT/THR solder
GTIN (EAN)	4032248335541	connection, 5.08 mm, Number of poles: 20, 180°, Solder pin length
Qty.	16 ST	(l): 3.2 mm, tinned, black, Box

BLT 5.08HC/10/180LR SN OR BX

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Counterpart

SLDV-THR 5.08/180FLF



High-temperature resistant, double level, laterally offset, male connector with flange or solder flange. 1.5 mm solder pin is suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Type	SLDV-THR 5.08/20/180FLF...	Version
Order No.	1829090000	PCB plug-in connector, male header, Flange / Solder flange, THT/THR
GTIN (EAN)	4032248335787	solder connection, 5.08 mm, Number of poles: 20, 180°, Solder pin
Qty.	16 ST	length (l): 3.2 mm, tinned, black, Box