

## BLT 5.08HC/24/180 SN OR BX

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

### Product image



Similar to illustration

Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. 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: 24, 180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box
Order No.	<a href="#">1501760000</a>
Type	BLT 5.08HC/24/180 SN OR BX
GTIN (EAN)	4008190072537
Qty.	12 pc(s).
Product data	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 17 A / AWG 26 - AWG 14
Packaging	Box

Creation date March 24, 2021 3:09:28 AM CET

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**Technical data**
**Dimensions and weights**

Depth	31.8 mm	Depth (inches)	1.252 inch
Height	12.2 mm	Height (inches)	0.48 inch
Net weight	70.2 g	Width	121.92 mm
Width (inches)	4.8 inch		

**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)	0.2 inch		
Conductor outlet direction	180°		
Number of poles	24		
L1 in mm	116.84 mm		
L1 in inches	4.6 inch		
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		
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
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	CuSn	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 <sup>2</sup>
Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 14
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>
Solid, max. H05(07) V-U	2.5 mm <sup>2</sup>

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Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>
Flexible, max. H05(07) V-K	1.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm <sup>2</sup> min.	
w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm <sup>2</sup> max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm <sup>2</sup>
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm ; 2.4 mm


Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	14 mm
		Recommended wire-end ferrule	<a href="#">H0,5/18 OR</a>	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	<a href="#">H1,0/18 GE</a>	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	<a href="#">H1,5/18D SW</a>	
wire end ferrule	Stripping length	nominal	12 mm	
	Recommended wire-end ferrule	<a href="#">H1,5/12</a>		

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.

### 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
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV	Short-time withstand current resistance	3 x 1s with 100 A

### 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)	300 V
Rated current (Use group B / CSA)	15 A	Rated current (Use group D / CSA)	15 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

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## Technical data

### 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)	300 V
Rated current (Use group B / UL 1059)	17 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

### Packing

Packaging	Box	VPE length	70 mm
VPE width	133 mm	VPE height	158 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		
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		
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 0.08 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 0.08 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	solid 2.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	AWG 26/1	
		Type of conductor and conductor cross-section	AWG 26/19	
		Type of conductor and conductor cross-section	AWG 14/1	
		Type of conductor and conductor cross-section	AWG 14/19	
	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 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 <sup>2</sup>
	Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>
Evaluation	passed	
Requirement	0.7 kg	
Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm <sup>2</sup>
	Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>
	Type of conductor and conductor cross-section	AWG 14/1
	Type of conductor and conductor cross-section	AWG 14/19
Evaluation	passed	

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**Technical data**

Pull-out test	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
	Evaluation	passed	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>
	Evaluation	passed	
	Requirement	≥40 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 14/1
		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 <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>
	Evaluation	passed	

**Classifications**

ETIM 6.0	EC002638	ETIM 7.0	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

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**Technical data****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"> <li>• Additional colours on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes.</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



ROHS Conform

UL File Number Search E60693

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">CB Certificate</a> <a href="#">CB Testreport</a> <a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">STEP</a>
Engineering Data	<a href="#">WSCAD</a>

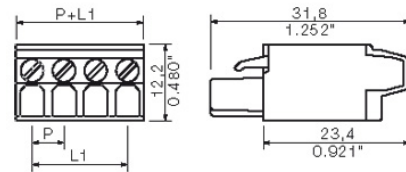
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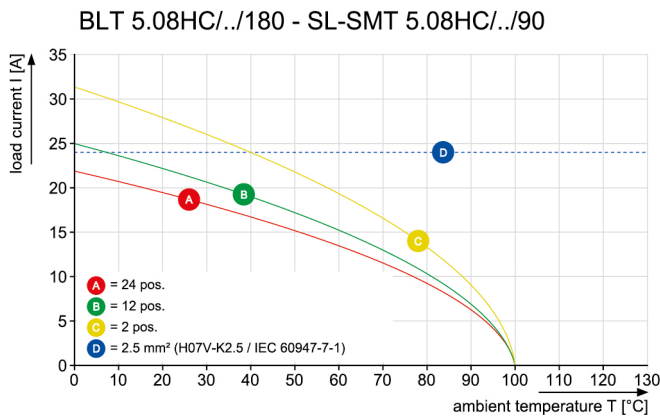
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**Drawings**

**Dimensional drawing**



**Graph**

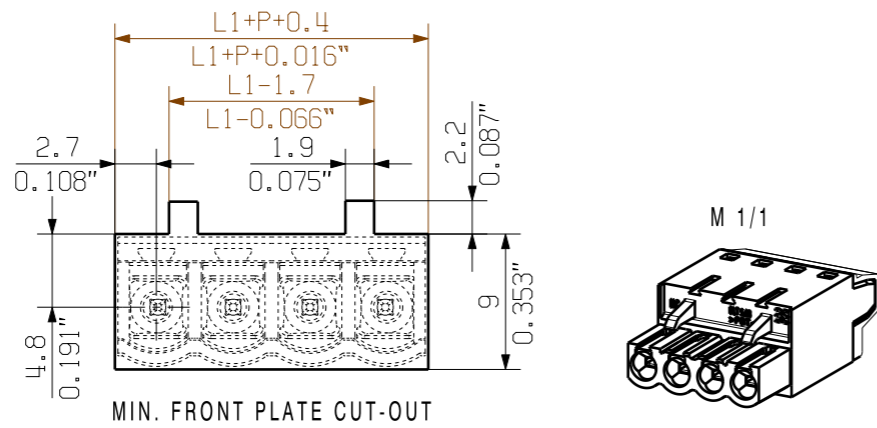


MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE  
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

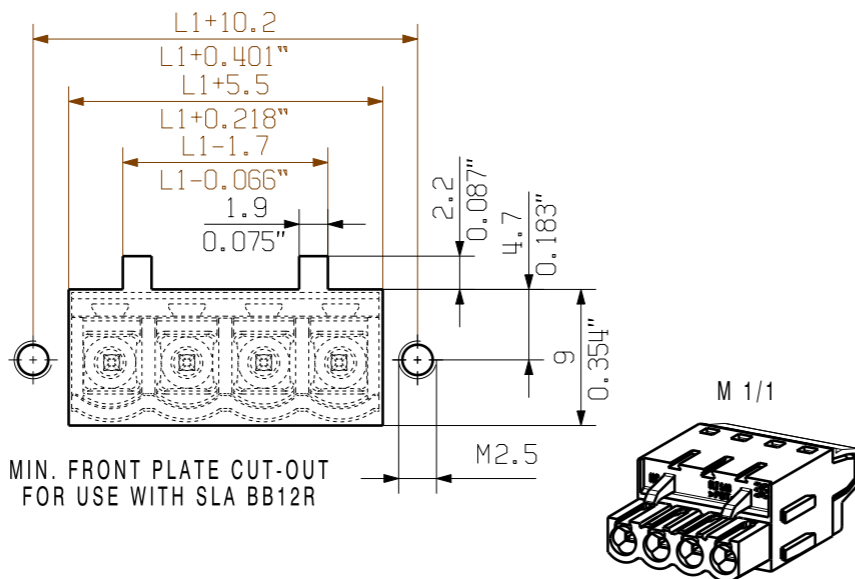
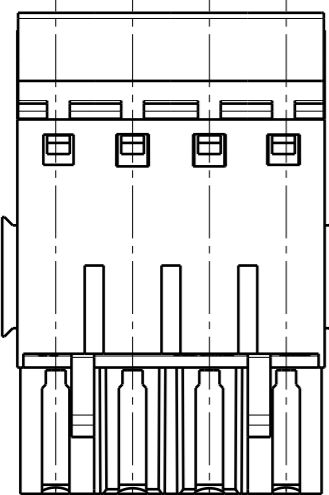
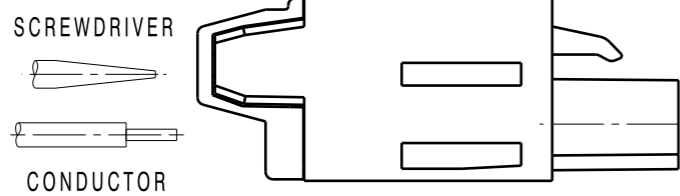
DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING



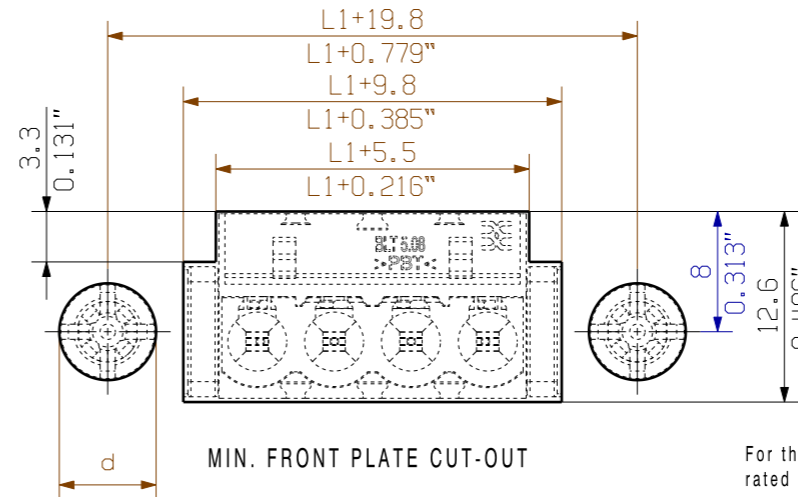
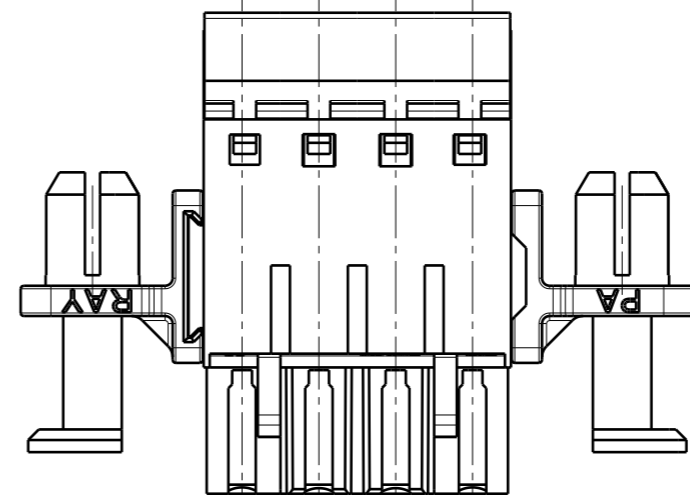
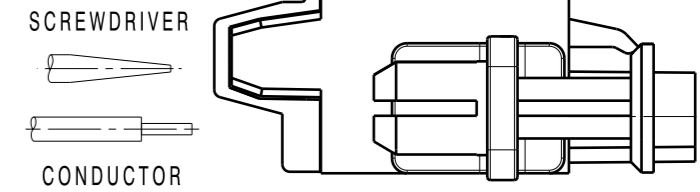
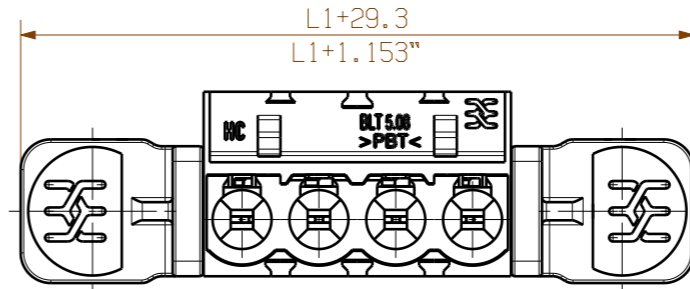
SHOWN: BLT 5.08HC/04/180



SHOWN: BLT 5.08HC/04/180B



SHOWN: BLT 5.08HC/04/180DF



0.5-0.8	0.019-0.031	6.3	0.248
1.00	0.039	6.4	0.252
1.5	0.059	6.5	0.256
2.00	0.079	6.7	0.264
WANDDICKE WALL THICKNESS [mm]	WANDDICKE WALL THICKNESS [inch]	d [mm]	d [inch]

P=5.08 RASTER  
PITCH

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 to 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 electrical, mechanical, thermal and corrosive stress will be satisfied.

24	106.84	4.600
23	111.76	4.400
22	106.68	4.200
21	101.60	4.000
20	96.52	3.800
19	91.44	3.600
18	86.36	3.400
17	81.28	3.200
16	76.20	3.000
15	71.12	2.800
14	66.04	2.600
13	60.96	2.400
12	55.88	2.200
11	50.80	2.000
10	45.72	1.800
9	40.64	1.600
8	35.56	1.400
7	30.48	1.200
6	25.40	1.000
5	20.32	0.800
4	15.24	0.600
3	10.16	0.400
2	5.08	0.200
n POLES	L1 [mm]	L1 [inch]

GENERAL TOLERANCE:  
DIN ISO 2768-m



70664/4  
24.09.13 HERTEL\_S 01  
MODIFICATION

**Weidmüller**

CAT.NO.:

**C 16018 41**

DRAWING NO. SHEET 01 OF 01 SHEETS ISSUE NO.



DATE NAME

DRAWN 11.06.2003 KNOTH\_G

RESPONSIBLE HERTEL\_S

CHECKED 24.09.2013 HERTEL\_S

APPROVED HECKERT\_M

**BLT5.08HC/.../180 ...**  
BUCHSENSTECKER  
FEMALE PLUG

PRODUCT FILE: BLT 5.08

7143

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

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESER DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINER INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET. ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER-, ODER GESCHMACKSMUSTERENTRAGUNG VORBEHALTEN. THE REPRODUCTION, DISTRIBUTION AND UTILIZATION OF THIS DOCUMENT AS WELL AS THE COMMUNICATION OF ITS CONTENTS TO OTHERS WITHOUT EXPLICIT AUTHORIZATION IS PROHIBITED. OFFENDERS WILL BE HELD LIABLE FOR THE PAYMENT OF DAMAGES. WEIDMUELLER EXCLUSIVELY RESERVES THE RIGHT TO FILE FOR PATENTS, UTILITY MODELS OR DESIGNS. © WEIDMUELLER INTERFACE GmbH & Co.KG

