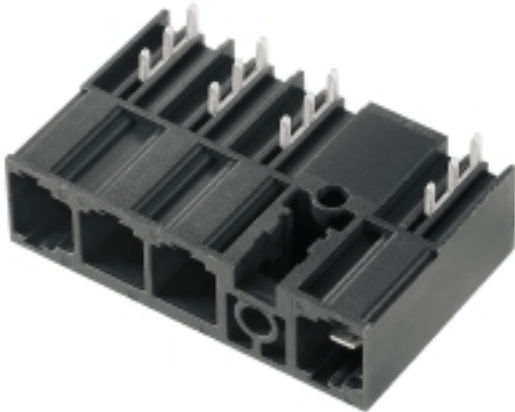


**OMNIMATE Power - series BU/SU 10.16HP  
SU 10.16HP/04/270MF4 3.5AG BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

**Product image**

Similar to illustration

Single-row, high-performance male header for side-by-side mounting without sacrificing any poles or with patented flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional fastening in the flange. 3.5 mm pin length is optimised for wave soldering, plug-in direction 270° to solder pins.

**General ordering data**

Type	SU 10.16HP/04/270MF4 3.5AG BK BX
Order No.	<a href="#">2580880000</a>
Version	PCB plug-in connector, male header, THT solder connection, 10.16 mm, Number of poles: 4, 270°, Solder pin length (l): 3.5 mm, black, Box
GTIN (EAN)	4050118589498
Qty.	36 pc(s).
Product data	IEC: 1000 V / 78.3 A UL: 300 V / 60 A
Packaging	Box

Creation date May 2, 2020 2:56:47 AM CEST

**OMNIMATE Power - series BU/SU 10.16HP  
SU 10.16HP/04/270MF4 3.5AG BK BX**

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

Net weight	17.8 g
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**System specifications**

Product family	OMNIMATE Power - series BU/SU 10.16HP	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	10.16 mm
Pitch in inches (P)	0.4 inch	Outgoing elbow	270°
Number of poles	4	Solder pin length (l)	3.5 mm
Solder pin length tolerance	+0.1 / -0.3 mm	Solder pin dimensions	1.2 x 1.1 mm
Solder pin dimensions = d tolerance	+0.1 / -0.1 mm	L1 in mm	30.48 mm
L1 in inches	1.2 inch	Pin series quantity	2
Plugging cycles	≤ 50		

**Material data**

Colour	black	Colour chart (similar)	RAL 9011
Insulation strength	≥ 10 <sup>8</sup> Ω	GWFI	960 °C
Storage temperature, min.	-25 °C	Storage temperature, max.	50 °C
Max. relative humidity during storage	70 %	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

**Rated data acc. to IEC**

Rated current, min. number of poles (Tu=20°C)	78.3 A	Rated current, max. number of poles (Tu=20°C)	67.9 A
Rated current, min. number of poles (Tu=40°C)	70.6 A	Rated current, max. number of poles (Tu=40°C)	61.3 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	690 V	Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV
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
Clearance, min.	8.9 mm	Creepage distance, min.	10.5 mm

**Rated data acc. to CSA**

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	300 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	60 A
Rated current (Use group C / CSA)	60 A	Rated current (Use group D / CSA)	5 A

**Rated data acc. to UL 1059**

Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	300 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	60 A
Rated current (Use group C / UL 1059)	60 A	Rated current (Use group D / UL 1059)	5 A
Clearance distance, min.	8.9 mm	Creepage distance, min.	10.5 mm

**Packing**

Packaging	Box	VPE length	350 mm
VPE width	135 mm	VPE height	47 mm

Creation date May 2, 2020 2:56:47 AM CEST

**OMNIMATE Power - series BU/SU 10.16HP  
SU 10.16HP/04/270MF4 3.5AG BK BX**

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**Technical data**
**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02		

**Notes**

Notes	<ul style="list-style-type: none"> <li>• Additional colours on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</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>• For all applications with flange we recommend to fix the pin header with the help of the soldering flange or a self-tapping screw on the board.</li> </ul>
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.

**Downloads**

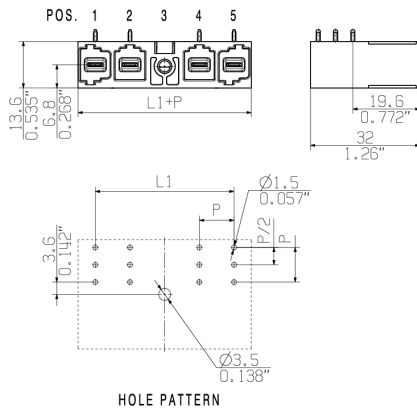
White paper power electronics connected correctly	<a href="#">Download Whitepaper</a>
White paper UL 600 V	<a href="#">Download Whitepaper</a>

## OMNIMATE Power - series BU/SU 10.16HP SU 10.16HP/04/270MF4 3.5AG BK BX

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# Drawings

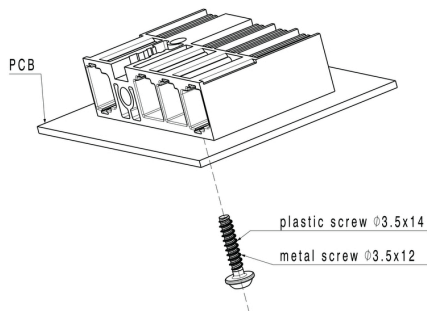
### Dimensional drawing



### Graph

6	M(S)F6	o	o	o	o	o	X	o
6	M(S)F5	o	o	o	o	o	X	o
6	M(S)F4	o	o	o	X	o	o	o
6	M(S)F3	o	o	X	o	o	o	o
6	M(S)F2	o	X	o	o	o	o	o
5	M(S)F5	o	o	o	o	X	o	
5	M(S)F4	o	o	o	X	o	o	
5	M(S)F3	o	o	X	o	o	o	
5	M(S)F2	o	X	o	o	o	o	
4	M(S)F4	o	o	o	X	o		
4	M(S)F3	o	o	X	o	o		
4	M(S)F2	o	X	o	o	o		
3	M(S)F3	o	o	X	o			
3	M(S)F2	o	X	o	o			
2	M(S)F2	o	X	o				
No of poles	X = middle flange position	1	2	3	4	5	6	7

### Example of use



**OMNIMATE Power - series BU/SU 10.16HP  
SU 10.16HP/04/270MF4 3.5AG BK BX**

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**Mating connector (conditionally pluggable)**
**BUF 10.16IT 180MF AG**


Device connectivity | OMNIMATE® Power BUF 10.16 PUSH IN PCB connector, 16mm<sup>2</sup>, with wire-ready function

- PUSH IN technology with settable wire-ready contact point simplifies the connection of stranded wires without wire-end ferrules and wires with particularly rigid insulation
- Direct and tool-free connection of solid wires and wires with crimped wire-end ferrules for fast and safe wiring
- Single-hand operation of the plug-in connector and automatic connection thanks to the middle flange with snap-on mechanism and optionally with additional screw fastening

**General ordering data**

Type	BUF 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">2592540000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118603712	180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	24 pc(s).			
Type	BUF 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">2493220000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118503005	180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	20 pc(s).			

**BUZ 10.16IT/180MF**


180° female plug with 10.16 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SU 10.16 IT with leading contact.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth.

The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Also optionally available without middle flange interlock.

**General ordering data**

Type	BUZ 10.16IT/04/180MSF4 ...	Version	Product data	Packaging
Order No.	<a href="#">1270550000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118058765	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 60 A / AWG 22 - AWG 4	
Qty.	18 pc(s).			

**OMNIMATE Power - series BU/SU 10.16HP  
SU 10.16HP/04/270MF4 3.5AG BK BX**

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**Mating connector (conditionally pluggable)**
**BUF 10.16IT 180MSF AG**


Device connectivity | OMNIMATE® Power BUF 10.16  
PUSH IN PCB connector, 16mm<sup>2</sup>, with wire-ready  
function

- PUSH IN technology with settable wire-ready contact point simplifies the connection of stranded wires without wire-end ferrules and wires with particularly rigid insulation
- Direct and tool-free connection of solid wires and wires with crimped wire-end ferrules for fast and safe wiring
- Single-hand operation of the plug-in connector and automatic connection thanks to the middle flange with snap-on mechanism and optionally with additional screw fastening

**General ordering data**

Type	BUF 10.16IT/04/180MSF4 ...	Version	Product data	Packaging
Order No.	<a href="#">2493280000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118503067	180°, PUSH IN with actuator, Clamping range, max.: 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	24 pc(s).			
Type	BUF 10.16IT/04/180MSF4 ...	Version	Product data	Packaging
Order No.	<a href="#">2592570000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118603668	180°, PUSH IN with actuator, Clamping range, max.: 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	24 pc(s).			
Type	BUF 10.16IT/04/180MSF4 ...	Version	Product data	Packaging
Order No.	<a href="#">2493290000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118503074	180°, PUSH IN with actuator, Clamping range, max.: 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	20 pc(s).			

**OMNIMATE Power - series BU/SU 10.16HP  
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**Mating connector (fully pluggable)****BUF 10.16IT 180MF AG**

Device connectivity | OMNIMATE® Power BUF 10.16  
PUSH IN PCB connector, 16mm<sup>2</sup>, with wire-ready  
function

- PUSH IN technology with settable wire-ready contact point simplifies the connection of stranded wires without wire-end ferrules and wires with particularly rigid insulation
- Direct and tool-free connection of solid wires and wires with crimped wire-end ferrules for fast and safe wiring
- Single-hand operation of the plug-in connector and automatic connection thanks to the middle flange with snap-on mechanism and optionally with additional screw fastening

**General ordering data**

Type	BUF 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">2467370000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118481747	180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	24 pc(s).			
Type	BUF 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">2592540000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118603712	180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	24 pc(s).			
Type	BUF 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">2544950000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118555011	180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	24 pc(s).			
Type	BUF 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">2493220000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118503005	180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	20 pc(s).			
Type	BUF 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">2485010000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118495607	180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	24 pc(s).			

**OMNIMATE Power - series BU/SU 10.16HP  
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**Mating connector (fully pluggable)**
**BUZ 10.16IT/180MF**


180° female plug with 10.16 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SU 10.16 IT with leading contact.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth.

The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Also optionally available without middle flange interlock.

**General ordering data**

Type	BUZ 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">1156640000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4032248943616	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup> , BoxUL: 600 V / 60 A / AWG 22 - AWG 4		
Qty.	18 pc(s).			
Type	BUZ 10.16IT/04/180MSF4 ...	Version	Product data	Packaging
Order No.	<a href="#">1270550000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118058765	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup> , BoxUL: 600 V / 60 A / AWG 22 - AWG 4		
Qty.	18 pc(s).			
Type	BUZ 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">1254960000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118047738	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup> , BoxUL: 600 V / 60 A / AWG 22 - AWG 4		
Qty.	18 pc(s).			
Type	BUZ 10.16IT/04/180MF4 R ...	Version	Product data	Packaging
Order No.	<a href="#">1286510000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4050118077209	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup> , BoxUL: 600 V / 60 A / AWG 22 - AWG 4		
Qty.	20 pc(s).			



**OMNIMATE Power - series BU/SU 10.16HP  
SU 10.16HP/04/270MF4 3.5AG BK BX**

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**Mating connector (fully pluggable)**
**BUZ 10.16IT/180MF SH**

**OMNIMATE Power for IT networks – scalable to 50 kVA**
**Tailor-made solutions for special requirements**

More standard-compliance means fewer compromises: OMNIMATE Power for IT networks has integrated features incorporated as standard across the range. This makes the design-in and approvals process simpler and makes them safer and more reliable in operation. Results for the application and advantages for the user: unlimited use in 400-V IT systems and touch safety according to IEC 61800-5-1 (+ 5.5 mm). The self-snapping one-handed safety flange enables intuitive and safe usage. Operational reliability is guaranteed by the automatic interlock feature during the plug-in process. In conclusion: You need no additional device covering. The application-oriented design means that no compromises are necessary during the approval process. Including pre-assembled pluggable shield connection for large area shielding in your application.

**General ordering data**

Type	BUZ 10.16IT/04/180MF4SH ...	Version	Product data
Order No.	<a href="#">2627370000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>
GTIN (EAN)	4050118631258	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup>	UL: 600 V / 60 A / AWG 22 - AWG 4
Qty.	20 pc(s).		
Type	BUZ 10.16IT/04/180MF4SH ...	Version	Product data
Order No.	<a href="#">2627420000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>
GTIN (EAN)	4050118631302	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup>	UL: 600 V / 60 A / AWG 22 - AWG 4
Qty.	20 pc(s).		
Type	BUZ 10.16IT/04/180MF4SH ...	Version	Product data
Order No.	<a href="#">2627470000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>
GTIN (EAN)	4050118631357	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup>	UL: 600 V / 60 A / AWG 22 - AWG 4
Qty.	20 pc(s).		

**OMNIMATE Power - series BU/SU 10.16HP  
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**Mating connector (fully pluggable)**
**BUZ 10.16HP/180MF**


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 connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, protection against incorrect wiring and 4-point silver contact.

**General ordering data**

Type	BUZ 10.16IT/04/180MF4 A ...	Version	Product data	Packaging
Order No.	<a href="#">1081840000</a>	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4,	IEC: 1000 V / 78.3 A / 0.2 - 16 mm <sup>2</sup>	Box
GTIN (EAN)	4032248844715	180°, Clamping yoke connection, Clamping range, max. : 16 mm <sup>2</sup> ,	BoxUL: 600 V / 60 A / AWG 22 - AWG 4	
Qty.	18 pc(s).			

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.