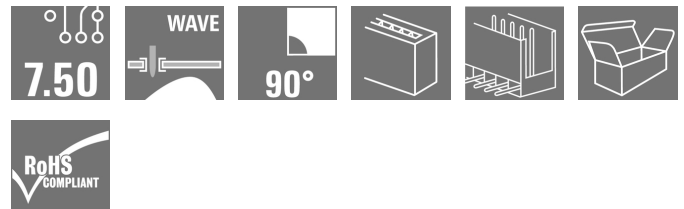


OMNIMATE Signal - series BL/SL 7.50 SL 7.50/08/90 3.2SN OR BX

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

Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Type	SL 7.50/08/90 3.2SN OR BX
Order No.	1628420000
Version	PCB plug-in connector, male header, open side, THT solder connection, 7.50 mm, Number of poles: 8, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4008 190201227
Qty.	50 pc(s).
Product data	IEC: 800 V / 18.5 A UL: 300 V / 15 A
Packaging	Box

Creation date May 3, 2020 7:45:17 PM CEST

OMNIMATE Signal - series BL/SL 7.50
SL 7.50/08/90 3.2SN OR BX

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 Klingenbergstraße 26
 D-32758 Detmold
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Technical data
Dimensions and weights

Height	11.7 mm	Height (inches)	0.461 inch
Height of lowest version	8.5 mm	Depth	12 mm
Depth (inches)	0.472 inch	Net weight	3.45 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 7.50	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	7.5 mm
Pitch in inches (P)	0.295 inch	Outgoing elbow	90°
Number of poles	8	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Tolerance of solder pin position	± 0.1 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
L1 in mm	52.5 mm	L1 in inches	2.067 inch
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch, plugged	Volume resistance	4.50 mΩ
Can be coded	Yes		

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	CuSn	Contact surface	tinned
Storage temperature, min.	-25 °C	Storage temperature, max.	50 °C
Max. relative humidity during storage	70 %	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

Rated data acc. to IEC


tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	18.5 A
Rated current, max. number of poles (Tu=20°C)	17 A	Rated current, min. number of poles (Tu=40°C)	16 A
Rated current, max. number of poles (Tu=40°C)	14.5 A	Rated voltage for surge voltage class / pollution degree II/2	800 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	500 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	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 120 A

**OMNIMATE Signal - series BL/SL 7.50
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Technical data

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

Rated data acc. to UL 1059

Institute (UR)				Certificate No. (UR)	
				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)	15 A	Rated current (Use group D / UL 1059)	10 A		
Reference to approval values	Specifications are maximum values, details - see approval certificate.				

Packing

Packaging	Box	VPE length	69 mm
VPE width	76 mm	VPE height	149 mm

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	UNSPSC	30-21-18-10

Notes

Notes	<ul style="list-style-type: none"> • Additional colours on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • Rated voltage for 7.62 mm pitch: $U/2 = 1000 \text{ V} / 6 \text{ kV}$ • 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.
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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.
----------------	--

Data sheet**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/08/90 3.2SN OR 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

Technical data**Approvals**

Approvals



ROHS

Conform

DownloadsApproval/Certificate/Document of
Conformity[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)
[MB DEVICE MANUF. EN](#)
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[FL APPL LED LIGHTING EN](#)
[FLIndustr.CONTROLS EN](#)
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[FL APPL INVERTER EN](#)
[FL_BASE_STATION EN](#)
[FL ELEVATOR EN](#)
[FL POWER SUPPLY EN](#)
[FL 72H SAMPLE SER EN](#)
[PO OMNIMATE EN](#)

Engineering Data

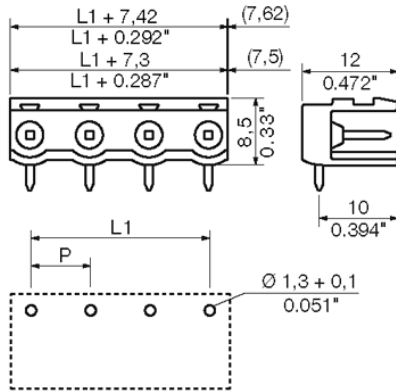
[SL.zip](#)

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Weidmüller Interface GmbH & Co. KG
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Drawings

Dimensional drawing



**OMNIMATE Signal - series BL/SL 7.50
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Mating connector (conditionally pluggable)
BLZ 7.50/270B


Female plugs with clamping-yoke screw for wire connection with 270° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/08/270B SN OR ...	Version	Product data	Packaging
Order No.	1702510000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 8,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908997	270°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	30 pc(s).	Box		

BLZ 7.50/90B


Female plugs with clamping-yoke screw for wire connection with 90° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/08/90B SN OR BX	Version	Product data	Packaging
Order No.	1702070000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 8,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908546	90°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	30 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/08/90 3.2SN OR 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

Mating connector (conditionally pluggable)

BLZ 7.50/180B



Female plugs with clamping-yoke screw wire-connect system. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/08/180B SN OR ...	Version	Product data	Packaging
Order No.	1628200000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 8,	IEC: 800 V / 18.5 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190201005	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	40 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/08/90 3.2SN OR BX**

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

Mating connector (fully pluggable)
BLZ 7.50/270


Female plugs with clamping-yoke screw for wire connection with 270° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/08/270 SN OR BX	Version	Product data	Packaging
Order No.	1702290000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 8,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908775	270°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	30 pc(s).	Box		

BLZ 7.50/180


Female plugs with clamping-yoke screw wire-connect system. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/08/180 SN OR BX	Version	Product data	Packaging
Order No.	1627980000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 8,	IEC: 800 V / 18.5 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190200787	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	40 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/08/90 3.2SN OR 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

Mating connector (fully pluggable)

BLZ 7.50/90



Female plugs with clamping-yoke screw for wire connection with 90° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/08/90 SN OR BX	Version	Product data	Packaging
Order No.	1701850000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 8,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908430	90°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	30 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/08/90 3.2SN OR BX**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 www.weidmueller.com

Accessories**LED Light guides****Effective: the link between LED and front panel.**

Floodlight indicators allow users to monitor the switching states without requiring a special design: optical plastic directs the light from standard LEDs around a bend into the connectors or through the front plate.

The fibre-optic elements are simply clipped behind the relevant 90° bend male connectors (90° outlet direction). Versions with different incoming light beam heights achieve maximum light efficiency for LEDs with different designs or heights.

The advantages compared to conventional solutions:

- No additional LED circuit board required behind the front panel
- No "long-legged" LEDs with separate mounting required
- Bent fibre-optic cable line for maximum light efficiency
- Uncomplicated front plate bore holes due to circular shape of outgoing light beam
- Easy to maintain correct clearance and creepage distance
- Can be partitioned for smaller pole numbers

The result: simplified manufacturing process, reduced costs and simplified design

General ordering data

Type	SL FLA 3.8/1	Version	Product data	Packaging
Order No.	1580110000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190050740	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 2,3/1	Version	Product data	Packaging
Order No.	1636670000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409975	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 2,3/24	Version	Product data	Packaging
Order No.	1636680000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409968	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 3.8/24	Version	Product data	
Order No.	1595860000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190140892	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 9.0/24	Version	Product data	
Order No.	1595870000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190079796	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 9.0/1	Version	Product data	Packaging
Order No.	1580120000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190031909	Number of poles: 1		
Qty.	100 pc(s).			

Data sheet

OMNIMATE Signal - series BL/SL 7.50 SL 7.50/08/90 3.2SN OR 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

Accessories

Type	SL FLA 1.5/1	Version	Product data	Packaging
Order No.	1580100000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190152475	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 1.5/24	Version	Product data	
Order No.	1595850000	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190092573	Number of poles: 1		
Qty.	10 pc(s).			

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

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Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 Germany
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Accessories

Additional accessories



No task is too small when creating the perfect solution.

Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but useful details:

- Test plugs - ensure reliable pick-up from diagnostic sockets
- Cross-connectors - ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements - divide a large number of male connectors into several separate socket connector channels
- Locks and clips - optional vibration-resistant clip-on connection or mounting for male and female connectors

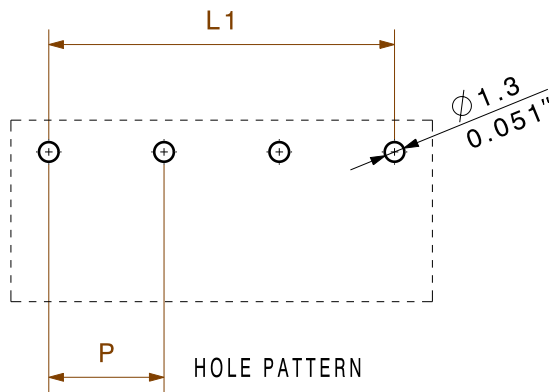
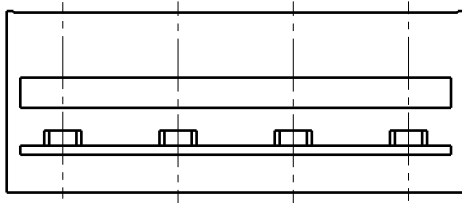
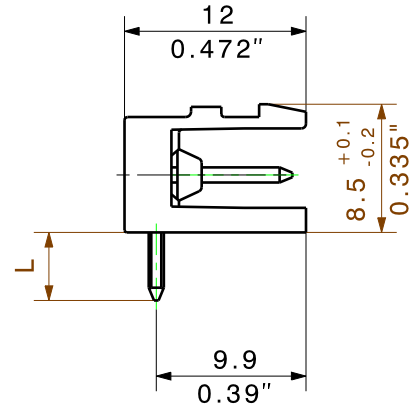
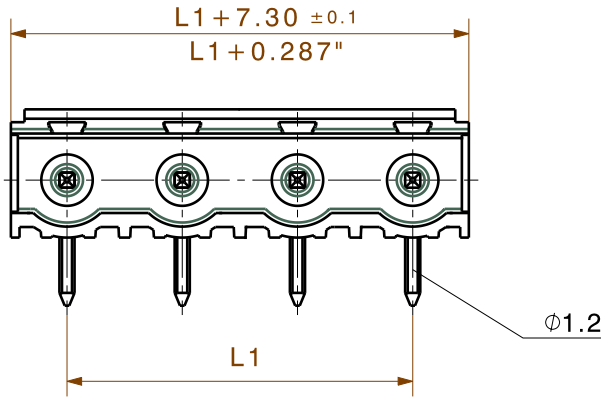
In tandem with the manufacturing process and application - more accessories = smaller workload

General ordering data

Type	SL AT SW	Version	Product data	Packaging
Order No.	1770240000	PCB plug-in connector, Accessories, Spacer, black, Number of poles: 1		Box
GTIN (EAN)	4032248117710			
Qty.	100 pc(s).			
Type	SL AT OR	Version	Product data	Packaging
Order No.	1598300000	PCB plug-in connector, Accessories, Spacer, orange, Number of poles: 1		Box
GTIN (EAN)	4008190189266			
Qty.	100 pc(s).			

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

DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING



For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / 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 EN 61984 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.

P = PITCH
 SHOWN: SL7.50/04/90

12	82,50	3,248
11	75,00	2,953
10	67,50	2,657
9	60,00	2,362
8	52,50	2,067
7	45,00	1,772
6	37,50	1,476
5	30,00	1,181
4	22,50	0,886
3	15,00	0,591
2	7,50	0,295
n	L1 [mm]	L1 [inch]

STIFTLÄNGE L PIN LENGTH L	TOLERANZ TOLERANCE
3,2	0,1
	-0,3
4,5	0,1
	-0,3

	METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05	57768/0 28.03.11 HOHLBEIN_K MODIFICATION	CAT.NO.:	3 21325 07
	DRAWN: 15.10.2003 RESPONSIBLE: HERTEL_S CHECKED: 29.03.2011 APPROVED: HECKERT_M	DATE: 15.10.2003 NAME: HERTEL_S	NAME: HECKERT_M	DRAWING NO.: 3 21325 07 SHEET 01 OF 02 SHEETS
SCALE: 5:1 SUPERSEDES:	DATE: 15.10.2003 NAME: HERTEL_S	NAME: HECKERT_M	SL 7.50/.../90... STIFTLISTE PIN HEADER	
PRODUCT FILE: BLZ/SL 7.50	PRODUCT FILE: BLZ/SL 7.50		7152	

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 WEIDMUELLER INTERFACE GmbH & Co.KG

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

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.