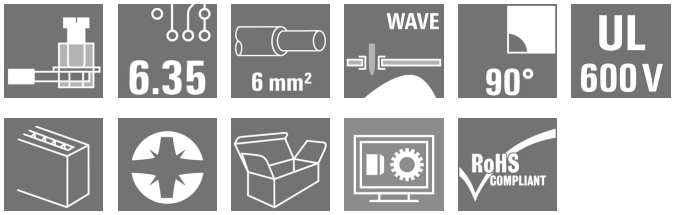
# OMNIMATE Signal - series LL
# LL 6.35/12/90V 5.0SN BK BX

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 1429-0
Fax: +49 5231 14292083
www.weidmueller.com




This PCB terminal,pitch 6.35 mm, with proven clamping yoke connection provides the following features: connections for 1000 V, 32 A, 6 mm² conductor cross-section, and off-set solder pins, 90° conductor outlet direction.

- 0.18 - 6.0 mm² (IEC) / 26 - 10 AWG (UL)
- 1000 V (IEC) / 600 V (UL)
- 32 A (IEC) / 30 A (UL)

## General ordering data

| | |
|---|---|
| Type | LL 6.35/12/90V 5.0SN BK BX |
| Order No. | 1356950000 |
| Version | PCB terminal, 6.35 mm, No. of poles: 12, 90°, Solder pin length (l): 5 mm, tinned, Black, Clamping yoke connection, Clamping range, rated connection, max.: 6 mm², Box |
| GTIN (EAN) | 4050118214819 |
| Qty. | 50 pc(s). |
| Product data | IEC: 1000 V / 32 A / 0.18 - 6 mm²<br>UL: 600 V / 30 A / AWG 26 - AWG 10 |
| Packaging | Box |

# OMNIMATE Signal - series LL
# LL 6.35/12/90V 5.0SN BK BX

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 1429-0
Fax: +49 5231 14292083
www.weidmueller.com

## Technical data

### Dimensions and weights

| | |
|---|---|
| Net weight | 34 g |

### System parameters

| | | | |
|---|---|---|---|
| Product family | OMNIMATE Signal - series LL | Wire connection method | Clamping yoke connection |
| Mounting onto the PCB | THT solder connection | Conductor outlet direction | 90° |
| Pitch in mm (P) | 6.35 mm | Pitch in inches (P) | 0.25 inch |
| No. of poles | 12 | Fitted by customer | No |
| Max. adjacent poles per row | 24 | Solder pin length (l) | 5 mm |
| Solder pin dimensions | 1.0 x 0.6 mm | Solder eyelet hole diameter (D) | 1.3 mm |
| Solder eyelet hole diameter tolerance (D) | + 0,1 mm | Number of solder pins per pole | 1 |
| Screwdriver blade | 0.8 x 4.0, PZ 1 | Screwdriver blade standard | DIN 5264 |
| Tightening torque, min. | 0.5 Nm | Tightening torque, max. | 0.6 Nm |
| Clamping screw | M 3 | Stripping length | 8 mm |
| L1 in mm | 69.85 mm | L1 in inches | 2.75 inch |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20 | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |

### Material data

| | | | |
|---|---|---|---|
| Insulating material | Wemid (PA) | Colour | Black |
| Colour chart (similar) | RAL 9011 | Insulating material group | I |
| CTI | ≥ 600 | Insulation resistance | ≥ $10^8$ Ω |
| UL 94 flammability rating | V-0 | Contact material | Copper alloy |
| Contact surface | tinned | Coating | 4-6 µm SN |
| Tinning type | matt | Layer structure of solder connection | 2-4 µm Ni / 4-6 µm Sn matt |
| Storage temperature, min. | -25 °C | Storage temperature, max. | 55 °C |
| Max. relative humidity during storage | 80 % | Operating temperature, min. | -50 °C |
| Operating temperature, max. | 120 °C | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 120 °C | | |

### Conductors suitable for connection

| | | | |
|---|---|---|---|
| Clamping range, rated connection, min. | 0.18 mm² | Clamping range, rated connection, max. | 6 mm² |
| Wire connection cross section AWG, min. | AWG 26 | Wire connection cross section AWG, max. | AWG 10 |
| Solid, min. H05(07) V-U | 0.18 mm² | Solid, max. H05(07) V-U | 6 mm² |
| Flexible, min. H05(07) V-K | 0.22 mm² | Flexible, max. H05(07) V-K | 4 mm² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.5 mm² | w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm² |
| w. wire end ferrule, DIN 46228 pt 1, min | 0.5 mm² | w. wire end ferrule, DIN 46228 pt 1, max. | 4 mm² |
| Plug gauge acc. to EN 60999 a x b; Ø | 3.6 mm x 3.1 mm; 2.7 mm | | |

# OMNIMATE Signal - series LL
# LL 6.35/12/90V 5.0SN BK BX

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 1429-0
Fax: +49 5231 14292083
www.weidmueller.com

## Technical data

### Rated data acc. to IEC

| | | | |
|---|---|---|---|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. no. of poles (Ta = 20°C) | 32 A |
| Rated current, max. no. of poles (Ta = 20°C) | 32 A | Rated current, min. no. of poles (Ta = 40°C) | 32 A |
| Rated current, max. no. of poles (Ta = 40°C) | 32 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 | 800 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 8 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 | Short-time withstand current resistance | 3 x 1s with 120 A |

### Rated data acc. to CSA

| | | | |
|---|---|---|---|
| Institute (CSA) | | Certificate No. (CSA) | 200039-1202191 |
| Rated voltage (Use group B) | 600 V | Rated voltage (Use group C) | 600 V |
| Rated voltage (use group D) | 600 V | Rated current (use group B) | 30 A |
| Rated current (use group C) | 30 A | Rated current (use group D) | 5 A |
| Wire cross-section, AWG, min. | AWG 26 | Wire cross-section, AWG, max. | AWG 10 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

### Rated data acc. to UL 1059

| | | | |
|---|---|---|---|
| Institute (cURus) | | Certificate No. (cURus) | E60693 |
| Rated voltage (use group B) | 600 V | Rated voltage (use group C) | 600 V |
| Rated voltage (use group D) | 600 V | Rated current (use group B) | 30 A |
| Rated current (use group C) | 30 A | Rated current (use group D) | 5 A |
| Wire cross-section, AWG, min. | AWG 26 | Wire cross-section, AWG, max. | AWG 10 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

### Classifications

| | | | |
|---|---|---|---|
| ETIM 3.0 | EC001284 | ETIM 4.0 | EC002643 |
| ETIM 5.0 | EC002643 | ETIM 6.0 | EC002643 |
| eClass 6.2 | 27-26-11-01 | eClass 7.1 | 27-44-04-01 |
| eClass 8.1 | 27-44-04-01 | eClass 9.0 | 27-44-04-01 |
| eClass 9.1 | 27-44-04-01 | | |

# OMNIMATE Signal - series LL
# LL 6.35/12/90V 5.0SN BK BX

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 1429-0
Fax: +49 5231 14292083
www.weidmueller.com

## Technical data

### Notes

| | |
|---|---|
| Notes | • Additional colours on request<br>• Rated current related to rated cross-section & min. No. of poles.<br>• Wire end ferrule without plastic collar to DIN 46228/1<br>• Wire end ferrule with plastic collar to DIN 46228/4<br>• P on drawing = pitch<br>• 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. |
| IPC conformity | The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request. |

### Approvals

| | |
|---|---|
| Approvals | |
| ROHS | Conform |

### Downloads

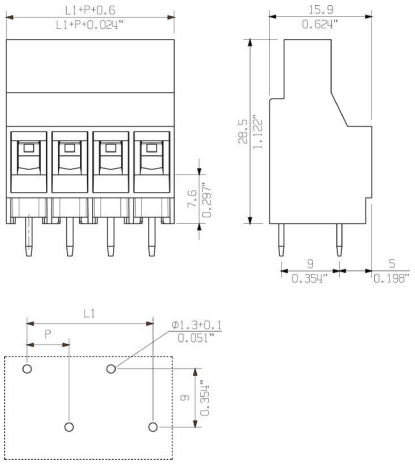
| | |
|---|---|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Brochure/Catalogue | FL DRIVES EN<br>MB DEVICE MANUF. EN<br>FL DRIVES DE<br>CAT 2 PORTFOLIOGUIDE EN<br>FL APPL_INVERTER EN<br>FL_BASE_STATION_EN<br>FL ELEVATOR EN<br>FL POWER SUPPLY EN<br>FL 72H SAMPLE SER EN<br>PO OMNIMATE EN |
| Engineering Data | EPLAN, WSCAD |
| Motion controllers white paper | Download Whitepaper |
| White Paper UL 600 V | Download Whitepaper |

# OMNIMATE Signal - series LL
# LL 6.35/12/90V 5.0SN BK BX

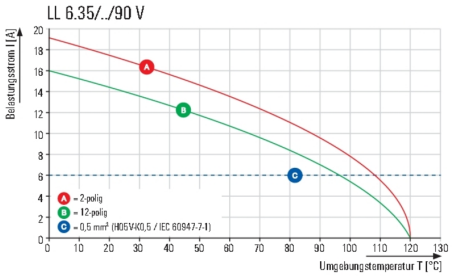
**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 1429-0
Fax: +49 5231 14292083
www.weidmueller.com

## Drawings

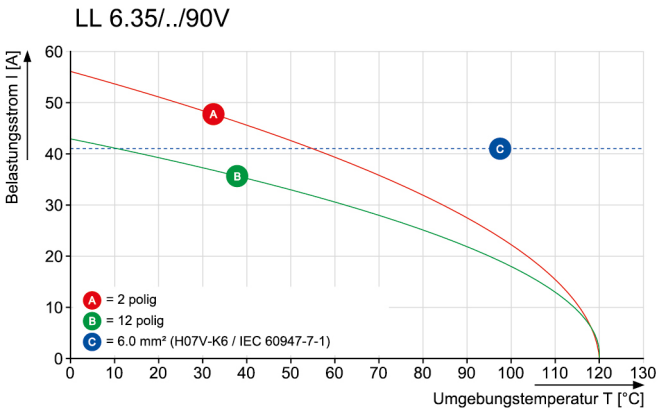
### Dimensional drawing




### Graph




### Graph

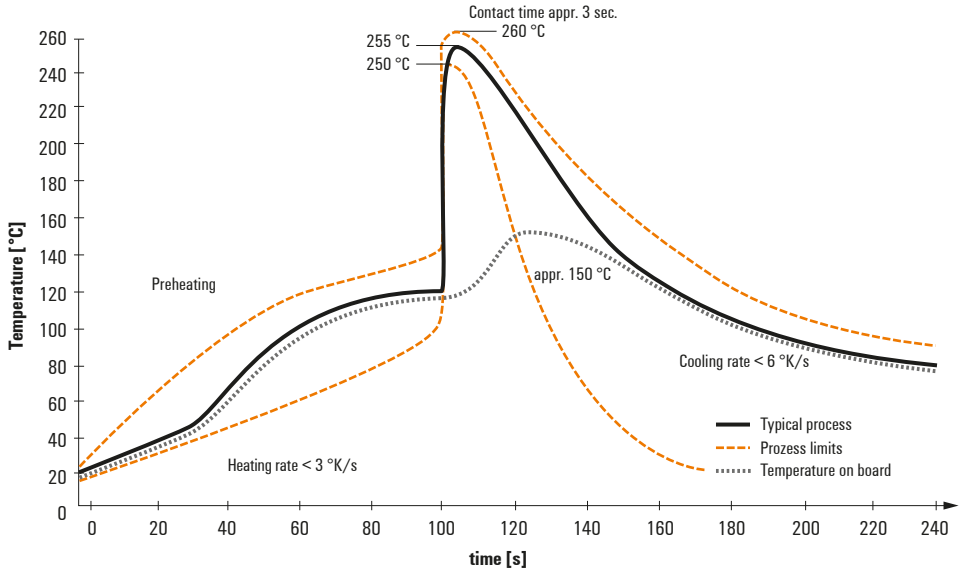


# Wave Solder Profile

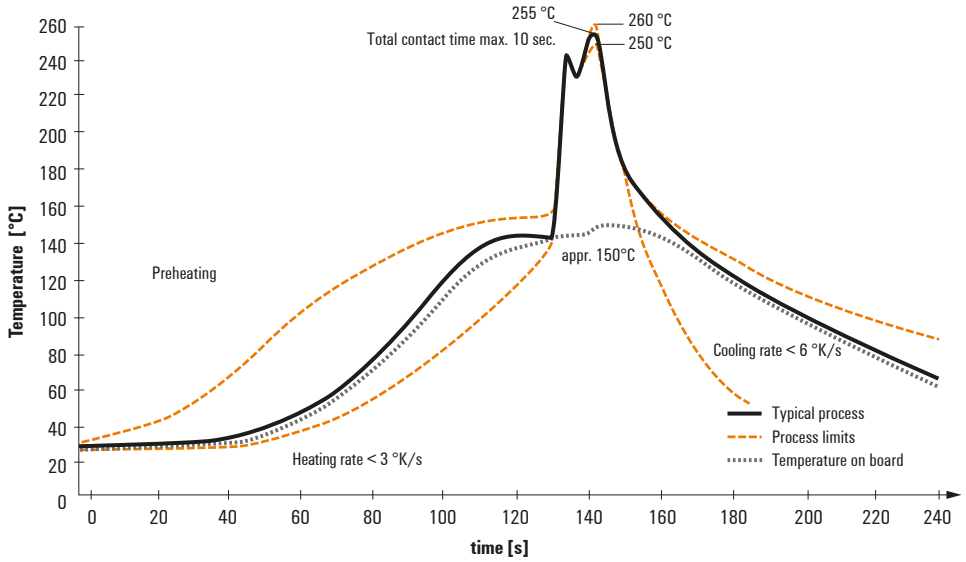
## Recommended wave solderding profiles

**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.