

## PCB terminal block - MKDSP 25/ 8-15,00 GY - 1994762

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PCB terminal block, nominal current: 125 A, nom. voltage: 1000 V, pitch: 15 mm, number of positions: 8, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: gray

The figure shows a 5-pos. version of the product

### Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Quick and convenient testing using integrated test option
- ✓ Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve



### Key Commercial Data

|              |               |
|--------------|---------------|
| Packing unit | 25 pc         |
| GTIN         |               |
| GTIN         | 4017918986735 |

### Technical data

#### Item properties

|                           |                                         |
|---------------------------|-----------------------------------------|
| Brief article description | PCB terminal block                      |
| Range of articles         | MKDSP 25                                |
| Pitch                     | 15 mm                                   |
| Number of positions       | 8                                       |
| Connection method         | Screw connection with tension sleeve    |
| Drive form screw head     | Philipps recess with slotted Torx (H1L) |
| Screw thread              | M5                                      |
| Mounting type             | Wave soldering                          |
| Pin layout                | Linear 2x2 pinning                      |
| Number of levels          | 1                                       |

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## Technical data

### Electrical parameters

|                                  |        |
|----------------------------------|--------|
| Rated current                    | 125 A  |
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2)      | 8 kV   |

### Connection capacity

|                                                                                        |                                            |
|----------------------------------------------------------------------------------------|--------------------------------------------|
| Conductor cross section solid                                                          | 0.5 mm <sup>2</sup> ... 35 mm <sup>2</sup> |
| Conductor cross section flexible                                                       | 0.5 mm <sup>2</sup> ... 35 mm <sup>2</sup> |
| Conductor cross section AWG / kcmil                                                    | 20 ... 2                                   |
| Conductor cross section flexible, with ferrule without plastic sleeve                  | 1 mm <sup>2</sup> ... 35 mm <sup>2</sup>   |
| Conductor cross section, flexible, with ferrule, with plastic sleeve                   | 1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup> |
| 2 conductors with same cross section, solid                                            | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible                                         | 0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve        | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve | 0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> |
| Stripping length                                                                       | 18 mm                                      |
| Torque                                                                                 | 2.5 Nm ... 4.5 Nm                          |

### Material data - contact

|                                          |                                                                                   |
|------------------------------------------|-----------------------------------------------------------------------------------|
| Note                                     | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material                         | Cu alloy                                                                          |
| Surface characteristics                  | Tin-plated                                                                        |
| Metal surface terminal point (top layer) | Tin (5 - 7 µm Sn)                                                                 |
| Metal surface soldering area (top layer) | Tin (5 - 7 µm Sn)                                                                 |

### Material data - housing

|                                                                   |        |
|-------------------------------------------------------------------|--------|
| Insulating material                                               | PA     |
| Insulating material group                                         | I      |
| CTI according to IEC 60112                                        | 600    |
| Flammability rating according to UL 94                            | V0     |
| Glow wire flammability index GWFI according to EN 60695-2-12      | 850    |
| Glow wire ignition temperature GWIT according to EN 60695-2-13    | 775    |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

### Dimensions for the product

|                             |              |
|-----------------------------|--------------|
| Length [ l ]                | 31 mm        |
| Width [ w ]                 | 120 mm       |
| Height [ h ]                | 43.5 mm      |
| Pitch                       | 15 mm        |
| Height (without solder pin) | 39 mm        |
| Solder pin [P]              | 4.5 mm       |
| Pin dimensions              | 1.2 x 1.2 mm |

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## Technical data

### Dimensions for the product

|             |        |
|-------------|--------|
| Dimension a | 105 mm |
|-------------|--------|

### Dimensions for PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.6 mm |
|---------------|--------|

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 25                  |
| Denomination packing units | Pcs.                |
| Outer packaging type       | Carton              |
| Delivery state             | Open clamping space |

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly)          | -5 °C ... 100 °C |
| Ambient temperature (operation)         | -40 °C           |

### Termination and connection method

#### Pull-out test

|                                                          |                                         |
|----------------------------------------------------------|-----------------------------------------|
| Pull-out test                                            | IEC 60998-2-1:1990-04                   |
|                                                          | Test passed                             |
| Conductor cross section / conductor type / tensile force | 0.5 mm <sup>2</sup> / solid / > 30 N    |
|                                                          | 0.5 mm <sup>2</sup> / flexible / > 30 N |
|                                                          | 35 mm <sup>2</sup> / solid / > 190 N    |
|                                                          | 25 mm <sup>2</sup> / flexible / > 135 N |

### Mechanical tests according to standard

|                    |                          |
|--------------------|--------------------------|
| Test specification | IEC 60998-2-1 (in parts) |
|--------------------|--------------------------|

### Electrical tests

|                                  |        |
|----------------------------------|--------|
| Rated current                    | 125 A  |
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2)      | 8 kV   |

### Air clearances and creepage distances

|                                  |        |
|----------------------------------|--------|
| Insulating material group        | I      |
| Voltage                          | 1000 V |
| Rated insulation voltage (III/3) | 1000 V |
| Rated insulation voltage (III/2) | 1000 V |
| Rated insulation voltage (II/2)  | 1000 V |
| Rated surge voltage (III/3)      | 8 kV   |
| Rated surge voltage (III/2)      | 8 kV   |
| Rated surge voltage (II/2)       | 8 kV   |

### Current carrying capacity / derating curves

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## Technical data

### Current carrying capacity / derating curves

|               |                          |
|---------------|--------------------------|
| Specification | IEC 60998-2-1 (in parts) |
|---------------|--------------------------|

### Vibration test

|                                                                                                           |                                                               |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Resistance to ageing, to humidity conditions, to ingress of solid objects and to harmful ingress of water | Test passed IEC 60998-2-1:1990-04 168 h/100°C 48 h/30 °C/92 % |
| Test result                                                                                               | Test passed                                                   |
| Test specification                                                                                        | IEC 60998-2-1:1990-04                                         |
| Dry heat                                                                                                  | 168 h/100°C                                                   |
| Humid heat                                                                                                | 48 h/30 °C/92 %                                               |

### Resistance to ageing, humidity and penetration of solids

|                    |                       |
|--------------------|-----------------------|
| Test result        | Test passed           |
| Test specification | IEC 60998-2-1:1990-04 |
| Dry heat           | 168 h/100°C           |
| Humid heat         | 48 h/30 °C/92 %       |

### Standards and Regulations

|                                  |        |
|----------------------------------|--------|
| Connection in acc. with standard | EN-VDE |
|                                  | CUL    |

### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Approvals

### Approvals

#### Approvals

IECEE CB Scheme / SEV / VDE Zeichengenehmigung / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|                    |                     |                                                           |         |
|--------------------|---------------------|-----------------------------------------------------------|---------|
| IECEE CB Scheme    | <b>CB</b><br>scheme | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | CH-8225 |
| Nominal voltage UN | 1000 V              |                                                           |         |
| Nominal current IN | 125 A               |                                                           |         |
| mm²/AWG/kcmil      | 35                  |                                                           |         |

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### Approvals

|                    |                                                                                   |                                                                                                                                                     |            |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| SEV                |  | <a href="https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html">https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html</a> | IK-3542-M1 |
| Nominal voltage UN |                                                                                   | 1000 V                                                                                                                                              |            |
| Nominal current IN |                                                                                   | 125 A                                                                                                                                               |            |
| mm²/AWG/kcmil      |                                                                                   | 35                                                                                                                                                  |            |

|                        |                                                                                   |                                                                                                                                                                                                           |          |
|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| VDE Zeichengenehmigung |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40041859 |
| Nominal voltage UN     |                                                                                   | 1000 V                                                                                                                                                                                                    |          |
| Nominal current IN     |                                                                                   | 125 A                                                                                                                                                                                                     |          |
| mm²/AWG/kcmil          |                                                                                   | 0.5-35                                                                                                                                                                                                    |          |

|     |                                                                                     |         |
|-----|-------------------------------------------------------------------------------------|---------|
| EAC |  | B.01742 |
|-----|-------------------------------------------------------------------------------------|---------|

|                    |                                                                                     |                                                                                                                                                       |                 |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| cULus Recognized   |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E60425-19770427 |
|                    |                                                                                     | B                                                                                                                                                     | C               |
| Nominal voltage UN |                                                                                     | 600 V                                                                                                                                                 | 600 V           |
| Nominal current IN |                                                                                     | 115 A                                                                                                                                                 | 115 A           |
| mm²/AWG/kcmil      |                                                                                     | 20-2                                                                                                                                                  | 20-2            |

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