ZK4-PE-3P PI-Spring Terminal Blocks
Ground with 3 connections

Improve the safety of your installation in the event of a short-circuit thanks to our screwless rail contact:
- Rail contact non operator dependent,
- Performances above the requirements of the IEC 60947-7-2 terminal block standard,
- Secured snap on or off the rail,
- Profile aligned with ZK4-3P.

Ordering Details

<table>
<thead>
<tr>
<th>Color</th>
<th>Type</th>
<th>Order Code</th>
<th>EAN Code</th>
<th>Pack (pce)</th>
<th>Weight (1 pce)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green-Yellow</td>
<td>ZK4-PE-3P</td>
<td>1SNK706151R0000</td>
<td>3472597061516</td>
<td>20</td>
<td>15.70</td>
</tr>
</tbody>
</table>

Declarations and Certificates

![Symbols of various certifications]
### Declarations and Certificates

<table>
<thead>
<tr>
<th>Certification</th>
<th>1SND225105U10*</th>
<th>1SND162017A02*</th>
<th>1SND230535F02*</th>
<th>1SND162012A02*</th>
<th>1SND162012A02*</th>
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</thead>
<tbody>
<tr>
<td>CE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB</td>
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<tr>
<td>RoHS</td>
<td></td>
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<tr>
<td>USR CNR</td>
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<td>CSA</td>
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<tr>
<td>EAC Ex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATEX</td>
<td>1SND162009A17*</td>
<td>1SND162010A17*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USR CNR Haz Loc</td>
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<tr>
<td>BV</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DNV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Explosive Atmosphere: ATEX Classification

<table>
<thead>
<tr>
<th>Group Category</th>
<th>Protection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM2 II 2 GD Ex eb I/IIC/IIIC</td>
<td>Ex e: increased security</td>
</tr>
</tbody>
</table>

In the presence of explosive dust atmosphere, terminal blocks are to be installed in certified enclosure II 2D

### General Information

The following information must be strictly adhered to in order to guarantee the terminal block electrical, mechanical and environmental performance.

<table>
<thead>
<tr>
<th>Protection</th>
<th>IEC 60947-1</th>
<th>IP20</th>
<th>NEMA f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>TH 35-7.5, TH 35-15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wire stripping length</td>
<td>12.5 mm</td>
<td>0.492 in</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating tool</th>
<th>Screw clamp</th>
<th>Screw rail contact (Maximum value)</th>
<th>Disconnect device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat screwdriver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5 mm</td>
<td>0.138 in</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Material Specifications

- **Insulating material**: Polyamide
- **CTI**: 600 V
- **Flammability**: UL94 V0, NF F 16101 I2F2
- **Needle flame test**: C 60615-11-5 Compliant

### Connecting capacity per clamp

<table>
<thead>
<tr>
<th>Connector Type</th>
<th>Norme</th>
<th>Value</th>
<th>PI Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rigid - Solid / Stranded conductor</td>
<td>IEC60947-7-2</td>
<td>0.5 ... 6 mm²</td>
<td>UL1059</td>
</tr>
<tr>
<td>1 Flexible conductor</td>
<td>IEC60947-7-2</td>
<td>0.5 ... 4 mm²</td>
<td></td>
</tr>
<tr>
<td>1 Flexible conductor with non insulated ferrule</td>
<td>Manufacturer data</td>
<td>Manufacturer data</td>
<td></td>
</tr>
<tr>
<td>1 Flexible conductor with insulated ferrule</td>
<td>Manufacturer data</td>
<td>Manufacturer data</td>
<td></td>
</tr>
<tr>
<td>Gauge</td>
<td>2.9 mm Dia.</td>
<td>IEC 60947-1</td>
<td></td>
</tr>
<tr>
<td>Ferrule maximum outer diameter or conductor insulation maximum outer diameter</td>
<td>Manufacturer data</td>
<td>5.35 mm</td>
<td>0.187 in</td>
</tr>
</tbody>
</table>

The “Connecting capacity with ferrule” data is guaranteed with ABB crimping tool PS-3 (crimping capacity up to 10 mm²).
### Multi Connecting capacity per clamp

<table>
<thead>
<tr>
<th>Type of Conductor</th>
<th>Norme</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Rigid - Solid / Stranded conductors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Flexible conductors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Flexible conductors with twin ferrule</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Don’t mix **solid and flexible** conductors in the same clamp.

Don’t mix **solid or flexible** conductors of different sizes in the same clamp.

The “Connecting capacity with ferrule” data is guaranteed with ABB crimping tool PS-3 (crimping capacity up to 10 mm²).

### Cross section

<table>
<thead>
<tr>
<th>Rated cross section</th>
<th>IEC60947-7-2 4 mm²</th>
<th>UL1059 10 AWG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum cross section</td>
<td>Manufacturer data 6 mm²</td>
<td>Manufacturer data 10 AWG</td>
</tr>
</tbody>
</table>

### Electrical characteristics

#### Current

<table>
<thead>
<tr>
<th>Rated current</th>
<th>IEC60947-7-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field and factory wiring Cat.2</td>
<td>UL 1059</td>
</tr>
<tr>
<td>Factory wiring Cat.1</td>
<td>UL 1059</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Exe current</th>
<th>IEC/EN 60079-7</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Rated short-time withstand current 1 s (Icw)</th>
<th>IEC60947-7-2 480 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-time withstand current</td>
<td></td>
</tr>
<tr>
<td>0.5 s</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>5 s</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>10 s</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>30 s</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>1 min</td>
<td>Manufacturer data</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated short-circuit withstand current</th>
<th>UL 1059 636 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. current (45° temperature increase) / Max. cross section (mm²)</td>
<td>Manufacturer data 6 mm²</td>
</tr>
<tr>
<td>Maximum short circuit current (1s)</td>
<td>Manufacturer data 480 A</td>
</tr>
</tbody>
</table>

### Short Circuit Current Rating (SCCR) SA UL 1059 supplement

<table>
<thead>
<tr>
<th>SCCR</th>
<th>UL 1059</th>
</tr>
</thead>
<tbody>
<tr>
<td>With the following configurations:</td>
<td></td>
</tr>
<tr>
<td>Suitable conductor wire range</td>
<td></td>
</tr>
<tr>
<td>Maximum voltage</td>
<td></td>
</tr>
<tr>
<td>Fuse class / Max. amp. Rating</td>
<td>J</td>
</tr>
<tr>
<td></td>
<td>T</td>
</tr>
<tr>
<td></td>
<td>RK1</td>
</tr>
<tr>
<td></td>
<td>RK5</td>
</tr>
<tr>
<td></td>
<td>G</td>
</tr>
<tr>
<td></td>
<td>CC</td>
</tr>
</tbody>
</table>

### Voltage

<table>
<thead>
<tr>
<th>Rated voltage</th>
<th>IEC 60947-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>UL 1059</td>
</tr>
<tr>
<td>Use Group</td>
<td>B, C, D</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>CSA-C22.2 n158</td>
</tr>
<tr>
<td>Rated voltage Ex e</td>
<td>IEC/EN 60079-7</td>
</tr>
<tr>
<td>Rated impulse withstand voltage</td>
<td>IEC 60947-1 8000 V</td>
</tr>
<tr>
<td>Dielectric test voltage</td>
<td>IEC 60947-1 2200 V</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>IEC 60947-1 3</td>
</tr>
<tr>
<td>Overvoltage category</td>
<td>IEC 60947-1 III</td>
</tr>
</tbody>
</table>

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### Temperature range

<table>
<thead>
<tr>
<th>State</th>
<th>Ambient temperature min/max</th>
<th>Storage</th>
<th>Installing</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>-55 ... +110 °C</td>
<td>-5 ... +40 °C</td>
<td>-55 ... +110 °C</td>
</tr>
</tbody>
</table>

### Dissipated power

<table>
<thead>
<tr>
<th>Description</th>
<th>IEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum dissipated power at rated current</td>
<td>IEC 60947-1</td>
</tr>
<tr>
<td>Maximum dissipated power at maximum Exe current</td>
<td>IEC 60079-7</td>
</tr>
</tbody>
</table>

### Rated power dissipation at an ambient temperature of 23 °C - IEC 60947-7-3

<table>
<thead>
<tr>
<th>Arrangement / Protection</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate arrangement / Overload and short-circuit protection</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Separate arrangement / Exclusive short-circuit protection</td>
<td>1 fuse and 4 feed-through blocks</td>
</tr>
<tr>
<td>Compound arrangement / Overload and short-circuit protection</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Compound arrangement / Exclusive short-circuit protection</td>
<td>5 fuse blocks</td>
</tr>
</tbody>
</table>

### Environmental Characteristics

#### Additional climatic tests

<table>
<thead>
<tr>
<th>Test Type</th>
<th>IEC</th>
<th>Conditions</th>
<th>Duration of test</th>
<th>Temperature</th>
<th>Relative humidity</th>
<th>Number of cycles (1 cycle = 24 h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry heat</td>
<td></td>
<td></td>
<td></td>
<td>110 °C</td>
<td></td>
<td>96 h</td>
</tr>
<tr>
<td>Cyclic damp heat</td>
<td>IEC 60068-2 30</td>
<td>Compliant</td>
<td></td>
<td>55 °C</td>
<td>95 %</td>
<td>2</td>
</tr>
<tr>
<td>Cold</td>
<td>IEC 60068-2 2</td>
<td>Compliant</td>
<td></td>
<td>55 °C</td>
<td></td>
<td>96 h</td>
</tr>
<tr>
<td>Damp heat steady state</td>
<td>IEC 60068-2-78</td>
<td>Compliant</td>
<td></td>
<td>40 °C</td>
<td>93 %</td>
<td>96 h</td>
</tr>
</tbody>
</table>

**Corrosion**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>IEC</th>
<th>Conditions</th>
<th>Duration of test</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt mist</td>
<td></td>
<td></td>
<td></td>
<td>1000 h</td>
</tr>
<tr>
<td>SO2</td>
<td>ISO 6988</td>
<td>Compliant</td>
<td></td>
<td>48 h</td>
</tr>
<tr>
<td>Flowing mixed gas corrosion test</td>
<td>IEC 60068-2 60</td>
<td>Compliant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Vibrations and shocks

Sinusoidal vibrations
Conditions
Frequency range 5 ... 100 Hz
Number of cycles 1
Acceleration 7 m/s²

Functional random vibrations
Category 1 Class B 3 axes
Conditions
Duration of test 20 mn
Frequency range 5 ... 150 Hz
Acceleration 1 m/s²

Long life testing at increased random vibrations
Category 1 Class B 3 axes
Conditions
Duration of test 20 mn
Frequency range 5 ... 150 Hz
Acceleration 1 m/s²

Shock
Category 1 Class B 3 axes
Conditions
Duration of test 30 ms
Frequency range 5 ... 150 Hz
Acceleration 5.7 m/s²

ZK4-PE-3P Terminal Block Accessories Compatibility
Some accessories may modify the terminal block's rating. See complete information in the accessories catalog page.

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Order Code</th>
<th>Pack/ing pieces</th>
<th>Weight g (1 pce)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Terminal Block Markers</td>
<td>MG-CPM 13</td>
<td>1SNB041791R0612</td>
<td>1880</td>
<td>0.273</td>
</tr>
<tr>
<td></td>
<td>MC512</td>
<td>1SNK140000R0000</td>
<td>22</td>
<td>9.00</td>
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<tr>
<td></td>
<td>MC512-YL</td>
<td>1SNK140004R0000</td>
<td>22</td>
<td>9.00</td>
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<tr>
<td></td>
<td>MC512PA</td>
<td>1SNK149999R0000</td>
<td>20</td>
<td>10.00</td>
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<tr>
<td></td>
<td>MC612</td>
<td>1SNK150000R0000</td>
<td>22</td>
<td>10.00</td>
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<tr>
<td></td>
<td>MC612-YL</td>
<td>1SNK150004R0000</td>
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<td>10.00</td>
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<tr>
<td></td>
<td>MC612PA</td>
<td>1SNK159999R0000</td>
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<td>11.00</td>
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<tr>
<td></td>
<td>PROCAP5</td>
<td>1SNK900609R0000</td>
<td>20</td>
<td>0.70</td>
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<tr>
<td></td>
<td>UMH</td>
<td>1SNK900611R0000</td>
<td>10</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>PROCAP6</td>
<td>1SNK900612R0000</td>
<td>20</td>
<td>0.80</td>
</tr>
<tr>
<td></td>
<td>SAT6</td>
<td>1SNK900615R0000</td>
<td>5</td>
<td>6.00</td>
</tr>
<tr>
<td>2 Mounting Rails</td>
<td>PR3.G2</td>
<td>1SNK169480R0300</td>
<td>2</td>
<td>718.00</td>
</tr>
<tr>
<td></td>
<td>PR4</td>
<td>1SNK168500R1200</td>
<td>2</td>
<td>915.00</td>
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<tr>
<td></td>
<td>PR5</td>
<td>1SNK168700R2200</td>
<td>2</td>
<td>700</td>
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<td></td>
<td>PR30</td>
<td>1SNK173220R0500</td>
<td>2</td>
<td>328.00</td>
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<tr>
<td></td>
<td>PR3.Z2</td>
<td>1SNK174300R1700</td>
<td>2</td>
<td>718.00</td>
</tr>
<tr>
<td></td>
<td>PR50</td>
<td>1SNK178529R0400</td>
<td>2</td>
<td>1288.00</td>
</tr>
<tr>
<td>3 End Sections</td>
<td>EK2.5-3P</td>
<td>1SNK705911R0000</td>
<td>20</td>
<td>2.40</td>
</tr>
<tr>
<td>4 End Stops</td>
<td>BAZ4</td>
<td>1SNK900002R0000</td>
<td>50</td>
<td>14.00</td>
</tr>
<tr>
<td></td>
<td>BAZ1</td>
<td>1SNK900002R0000</td>
<td>50</td>
<td>5.30</td>
</tr>
<tr>
<td></td>
<td>BAZH1</td>
<td>1SNK900102R0000</td>
<td>20</td>
<td>24.00</td>
</tr>
<tr>
<td>5 Circuit Separators</td>
<td>CS-R3</td>
<td>1SNK900107R0000</td>
<td>20</td>
<td>6.40</td>
</tr>
<tr>
<td>6 Test Connectors</td>
<td>TC5-R1</td>
<td>1SNK900201R0000</td>
<td>10</td>
<td>5.20</td>
</tr>
<tr>
<td>7 Test Adapters</td>
<td>TP2</td>
<td>1SNK900203R0000</td>
<td>20</td>
<td>1.70</td>
</tr>
<tr>
<td></td>
<td>TP4</td>
<td>1SNK900205R0000</td>
<td>20</td>
<td>2.40</td>
</tr>
<tr>
<td>8 Cross Spacing Jumpers</td>
<td>JB85-3</td>
<td>1SNK900603R0000</td>
<td>10</td>
<td>2.80</td>
</tr>
<tr>
<td>9 Tools</td>
<td>PS3</td>
<td>1SNK900650R0000</td>
<td>1</td>
<td>380.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1SNK900659R0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Jumper Bars</td>
<td>JB6-2</td>
<td>1SNK906302R0000</td>
<td>50</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td>JB6-3</td>
<td>1SNK906303R0000</td>
<td>50</td>
<td>2.10</td>
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<tr>
<td></td>
<td>JB6-4</td>
<td>1SNK906304R0000</td>
<td>50</td>
<td>2.90</td>
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<tr>
<td></td>
<td>JB6-5</td>
<td>1SNK906305R0000</td>
<td>50</td>
<td>3.60</td>
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<tr>
<td></td>
<td>JB6-10</td>
<td>1SNK906310R0000</td>
<td>20</td>
<td>7.40</td>
</tr>
<tr>
<td></td>
<td>JB6-50</td>
<td>1SNK906350R0000</td>
<td>10</td>
<td>38.10</td>
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<tr>
<td>11 Spacers</td>
<td>ES-TC6</td>
<td>1SNK900105R0000</td>
<td>10</td>
<td>0.80</td>
</tr>
</tbody>
</table>

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Fax +33 (0)4 7222 1935

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