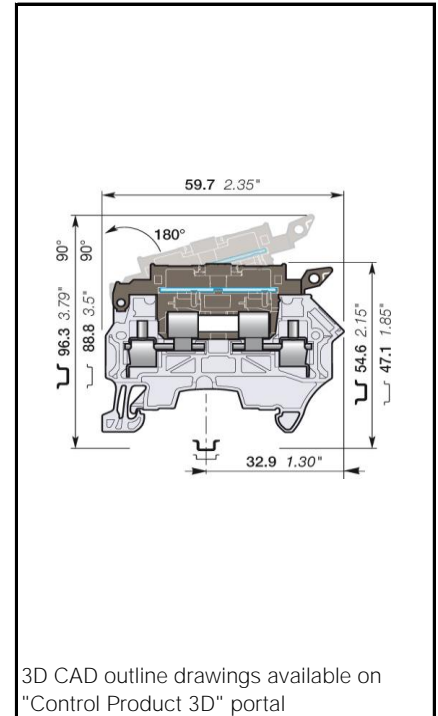
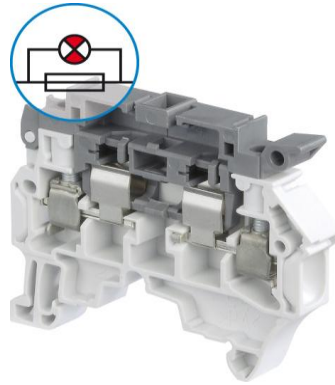


ZS4-SF1-R Screw Clamp Terminal Blocks

- Protect your circuit with 5x25 and 5x20 fuse terminal blocks (fuse not supplied with the terminal blocks),
- Compliant with IEC 60947-7-3 standard,
- Quickly identify the defective circuit thanks to the blown fuse indicator (with leakage current < 0.5 mA).



| | | |
|-----------------------|--|-------------------|
| | | 4 mm ² |
| | | 10 AWG |
| 8 mm 0.315 in Spacing | | |










Ordering Details

| Color | Type | Order Code | EAN Code | Pack ^(ing) | Weight (1 pce) g |
|-----------------|------------|-----------------|---------------|-----------------------|------------------|
| Grey, Dark Grey | ZS4-SF1-R1 | 1SNK508412R0000 | 3472595084128 | 50 | 13.30 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Declarations and Certificates





| | | | | | | | | |
|----|----|------|---------|--|--------|--|--|--|
| | | | | | | | | |
| CE | CB | RoHS | USR CNR | | Gost R | | | |
| | | | | | | | | |
| | BV | Rina | DNV | | | | | |

Declarations and Certificates

| | | |
|---|---------|-----------------|
|  | CE | 1SND225098C1004 |
|  | CB | 1SND161030A0202 |
|  | RoHS | 1SND230491F0205 |
|  | USR CNR | 1SND161040A0204 |
|  | CSA | 1SND161070A0203 |
|  | GOST R | 1SND161005A1103 |
|  | BV | 1SND161073A0201 |
|  | RINA | 1SND161088A0200 |
|  | DNV | 1SND161087A0200 |

General Information

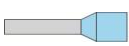
The following information must be strictly adhered to in order to guarantee the terminal block electrical, mechanical and environmental performance.

| | | | | | | | |
|-----------------------|---|------------------------|-----------------------------|---------------------------------------|--|-------------------|--|
| Protection | IEC 60947-1 | IP20 | NEMA250 | | | | |
| Rail |  | TH 35-7.5, TH 35-15 | | | | | |
| Wire stripping length |  | 11 mm | 0.433 in | | | | |
| | | Screw clamp | | Screw rail contact (Maximum value) | | Disconnect device | |
| Operating tool |  | Flat screwdriver | | | | | |
| | | 3.5 mm | 0.138 in | | | | |
| Torque |  | 0.6 N.m ± 0.1 N.m | 5.31 lb.in ± 0.885 lb.in | | | | |

Material Specifications

| | |
|---------------------|---|
| Insulating material | Polyamide |
| CTI | 600 V |
| Flammability | UL94 V0 |
| | Grey and Dark grey color only NF F 16101 I2F2 |
| | Other colours and colours combination |
| | Needle flame test C 60615-11-5 Compliant |

Connecting capacity per clamp

| | | Screw clamp | | | |
|---|---|------------------------|-------------------|--------|----------|
| 1 Rigid - Solid / Stranded conductor | Norme | IEC60947-7-3 | UL1059 | | |
| | Value | 0.2-4 mm ² | 24-10 AWG | | |
| 1 Flexible conductor | Norme | IEC60947-7-3 | | | |
| | Value | 0.22-4 mm ² | | | |
| 1 Flexible conductor with non insulated ferrule | Norme | Manufacturer data | Manufacturer data | | |
| | Value | 0.22-4 mm ² | 24-12 AWG | | |
| 1 Flexible conductor with insulated ferrule | Norme | Manufacturer data | Manufacturer data | | |
| | Value | 0.22-4 mm ² | 24-12 AWG | | |
| Gauge | | A3-B3 | 3 mm | | |
| | | IEC 60947-1 | 0.118 in | | |
| Ferrule maximum outer diameter or conductor insulation maximum outer diameter |  | ∅ Max. | Manufacturer data | 5.5 mm | 0.216 in |

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

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Multi Connecting capacity per clamp

| | | | | |
|---|-------|--------------------------|-------------------|--|
| 2 Rigid - Solid / Stranded conductors | Norme | IEC60947-7-3 | UL1059 | |
| | Value | 0.2-1.5 mm ² | 24-16 AWG | |
| 2 Flexible conductors | Norme | IEC60947-7-3 | | |
| | Value | 0.2-1.5 mm ² | | |
| 2 Flexible conductors with twin ferrule | Norme | Manufacturer data | Manufacturer data | |
| | Value | 0.22-1.5 mm ² | 24-16 AWG | |

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

| | | | | |
|-----------------------|-------------------|-------------------|-------------------|--------|
| Rated cross section | IEC60947-7-3 | 4 mm ² | UL1059 | 10 AWG |
| Maximum Cross section | Manufacturer data | 4 mm ² | Manufacturer data | 10 AWG |

Electrical characteristics

Current

| | | | |
|---|--------------------------------|-------------------|---------------------------|
| Rated current | | IEC60947-7-3 | 6.3 A |
| | Field and factory wiring Cat.2 | UL 1059 | 10 A |
| | Factory wiring Cat.1 | UL 1059 | 10 A |
| | | CSA-C-22.2 n°158 | 6.3 A |
| Rated short-time withstand current 1 s (I _{cw}) | | IEC60947-7-3 | |
| Short-time withstand current | | Manufacturer data | |
| | | Manufacturer data | |
| | | Manufacturer data | |
| | | Manufacturer data | |
| | | Manufacturer data | |
| Rated short-circuit withstand current | | CSA-C-22.2 n°158 | |
| Max. current (45° temperature increase) / Max. cross section (mm ²) | | Manufacturer data | 6.3 A 4 mm ² |
| Maximum short circuit current (1s) | | Manufacturer data | |

Short Circuit Current Rating (SCCR) SA UL 1059 supplement

| | | |
|------------------------------------|-------------------------------|---------|
| SCCR | | UL 1059 |
| With the following configurations: | | |
| | Suitable conductor wire range | |
| | Maximum voltage | |
| | Fuse type / Fuse rating | J |
| | | T |
| | | RK1 |
| | | RK5 |
| | | G |
| | | CC |

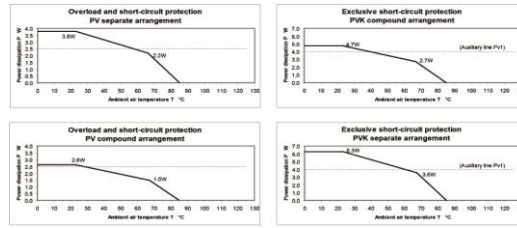
Voltage

| | | |
|---------------------------------|------------------|--------|
| Rated voltage | IEC 60947-1 | 250 V |
| Rated voltage | UL 1059 | 300 V |
| Use Group | UL 1059 | B,C |
| Rated voltage | CSA-C-22.2 n°158 | 300 V |
| Rated voltage Ex e | IEC/ EN 60079-7 | |
| Rated impulse withstand voltage | IEC 60947-1 | 8000 V |
| Dielectric test voltage | IEC 60947-1 | 2200 V |
| Pollution degree | IEC 60947-1 | 3 |
| Overvoltage category | IEC 60947-1 | III |

Temperature range

| | | | |
|-----------------------------|------------|-------------|-------------|
| Ambient temperature min/max | Storage | -55 +110 °C | -67 +230 °F |
| | Installing | -5 +40 °C | -23 +104 °F |
| | Service | -55 +110 °C | -67 +230 °F |

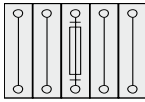
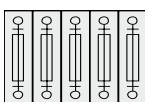
Current Derating curve for continuous service temperature



Dissipated power

| | |
|---|-------------|
| Maximum dissipated power at rated current | IEC 60947-1 |
|---|-------------|

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

| | | |
|---|---|-----|
| Separate arrangement / Overload and short-circuit protection |  1 fuse and 4 feed-through blocks | 2.5 |
| Separate arrangement / Exclusive short-circuit protection | | 4 |
| Compound arrangement / Overload and short-circuit protection |  5 fuse blocks | 1.6 |
| Compound arrangement / Exclusive short-circuit protection | | 4 |

Environmental Characteristics

Additional climatic tests

| | | | |
|--------------------------|------------|---|---------------|
| Dry heat | Conditions | IEC 60068-2 2 | Compliant |
| | | Temperature | +100 °C |
| | | Duration of test | 96 h |
| Cyclic damp heat | Conditions | IEC 60068-2 30 | Compliant |
| | | Temperature | +55 °C |
| | | Duration of test | 2 |
| Cold | Conditions | IEC 60068-2 1 | Compliant |
| | | Temperature | -40 °C |
| | | Duration of test | 96 h |
| Z/ABDM climatic sequence | Conditions | IEC 60068-2 61 | Compliant |
| | | Dry heat Duration of test / Temperature | 16 h +85 °C |
| | | Cyclic damp heat Number of cycles / Temperature | 1 +55 °C |
| | | Cold Duration of test / Temperature | 2 h -25 °C |
| | | | |

Corrosion

| | | | |
|----------------------------------|------------|---------------------------|---------------------|
| Salt mist | Conditions | IEC 60068-2 11 | Compliant |
| | | Duration of test | 96 h |
| | | Concentration | 5 % |
| SO ₂ | Conditions | ISO 6988 | Compliant |
| | | Duration of test | 48 h |
| | | Concentration | 0.2 dm ³ |
| Sulfur dioxide | Conditions | IEC 60068-2 42 | |
| Hydrogen sulfur | Conditions | IEC 60068-2 43 | |
| Flowing mixed gas corrosion test | Conditions | IEC 60068-2 60 | |
| | | Number of the test method | |
| | | Duration of test | |

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Vibrations

| | | | |
|---|----------------------------------|---|---------------------|
| Sinusoidal vibrations | Conditions | IEC 60068-2-6 | Compliant |
| | | Frequency range | 10-55 Hz |
| | | Number of cycles | 10 |
| | | Amplitude | |
| | | Acceleration | 10 m/s ² |
| Random vibrations and climatic sequence | Conditions | IEC 60068-2-4 | |
| | | Duration of test | |
| | | Frequency range | |
| | | Acceleration | |
| | | Climatic cycles | |
| | | Step 1-> Temperature / Duration of test | |
| | | Step 2-> Temperature / Duration of test | |
| | Temperature variation per minute | | |

ZS4-SF1-R Terminal Block Accessories Compatibility

Some accessories may modify the terminal block's rating. See complete information in the accessories catalog page.

| Description | Type | Order Code | Pack ^(ing) pieces | Weight g (1 pce) | Accessories catalogue page number |
|---------------------------|----------|-----------------|---------------------------------|---------------------|--------------------------------------|
| 1 End Stops | BAM3 | 1SNK900001R0000 | 50 | 13.80 | 1SNK160026S0201 |
| | BAZ1 | 1SNK900002R0000 | 20 | 5.30 | 1SNK160002S0201 |
| 2 End Sections | ES4-SF | 1SNK508960R0000 | 20 | 1.82 | 1SNK160022S0201 |
| 3 Lateral Jumper Bars | PC81-10 | 1SNA173523R1100 | 10 | 5.00 | |
| 4 Fuses | FU520 | 1SNA008288R1500 | 10 | | |
| | FU520 | 1SNA008289R1600 | 10 | | |
| | FU520 | 1SNA008290R1300 | 10 | | |
| | FU520 | 1SNA008291R0000 | 10 | | |
| | FU520 | 1SNA008292R0100 | 10 | | |
| | FU525 | 1SNA167546R2200 | 10 | | |
| | FU525 | 1SNA167547R2300 | 10 | | |
| | FU525 | 1SNA167548R0400 | 10 | | |
| | FU525 | 1SNA167549R0500 | 10 | | |
| | FU525 | 1SNA167550R0200 | 10 | | |
| 5 Assembly Rods | TGA8 | 1SNA168672R1100 | 10 | 1.00 | |
| | TGA8 | 1SNA168673R1200 | 10 | | |
| | TGA8 | 1SNA168674R1300 | 10 | | |
| 6 Protecting Cover Kits | KCO | 1SNK900624R0000 | 1 | 47.80 | 1SNK160045S0201 |
| 7 Protecting Covers | CO | 1SNK900604R0000 | 1 | 300.00 | 1SNK160045S0201 |
| 8 Mounting Rails | PR3.G2 | 1SNA164800R0300 | 2 | | 1SNK160040S0201 |
| | PR4 | 1SNA168500R1200 | 2 | 915.00 | 1SNK160041S0201 |
| | PR5 | 1SNA168700R2200 | 2 | | 1SNK160041S0201 |
| | PR30 | 1SNA173220R0500 | 2 | 328.00 | 1SNK160017S0201 |
| | PR3.Z2 | 1SNA174300R1700 | 2 | | 1SNK160017S0201 |
| 9 Spring Retaining Rings | ANT | 1SNA168675R1400 | 10 | | |
| 10 Tools | PS-3 | 1SNK900650R0000 | 1 | 380.00 | 1SNK160028S0201 |
| 11 Terminal Block Markers | MC812 | 1SNK160000R0000 | 22 | 10.00 | 1SNK160009S0201 |
| | MC812-YL | 1SNK160004R0000 | 22 | 10.00 | 1SNK160009S0201 |
| | MC812PA | 1SNK169999R0000 | 20 | 14.00 | 1SNK160009S0201 |
| | UMH | 1SNK900611R0000 | 10 | 0.20 | 1SNK160001S0201 |
| | PROCAP8 | 1SNK900613R0000 | 20 | 1.00 | 1SNK160013S0201 |
| | SAT8 | 1SNK900616R0000 | 5 | 6.00 | 1SNK160013S0201 |
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