



ZS4-S-R1 Screw Clamp Terminal Block

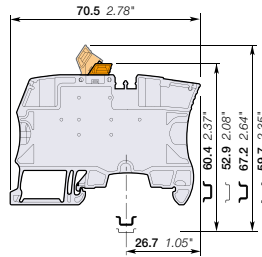
Disconnect



4 mm²
10 AWG

6 mm 0.236 in Spacing

Features and Benefits



- Simplify the alternated distribution thanks to the two jumper channels aligned with ZS4 feed-through terminal blocks,
- Ease your disconnect operations with the disconnect blade operated by hand or with a screwdriver.

3D CAD outline drawings available on "Control Product 3D" portal

| Ordering Details | Type | Order Code | EAN Code | Pack ^(ing) | Weight g (1 pce) |
|------------------|--------------------------------------|--------------------|---------------|-----------------------|------------------|
| Grey | <input type="checkbox"/> ZS4-S-R1 | 1SNK 506 310 R0000 | 3472595063109 | 50 | 13.20 |
| Blue | <input type="checkbox"/> ZS4-S-R1-BL | 1SNK 506 320 R0000 | 3472595063208 | 50 | 13.20 |
| Orange | <input type="checkbox"/> ZS4-S-R1-OR | 1SNK 506 330 R0000 | 3472595063307 | 50 | 13.20 |

| Declarations and Certificates | Document Part Number |
|-------------------------------|---|
| CE | UE Directive 1SND 225 099 C1001 |
| RoHS | RoHS 1SND 230 491 F0203 |
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General Information

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

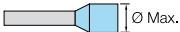
| | | | | | |
|---|--|--------------------|-----------------------------|---------------------------------------|---------------|
| Protection | | IP 20 | NEMA 1 | | |
| Rail | | DIN3-TH35 | | | |
| Wire stripping length | | 10.5 mm | 0.413 in | | |
| | | Screw clamp | | Screw rail contact (Maximum value) | |
| Operating tool | | Flat screwdriver | | | |
| | | 3.5 mm | 0.138 in | | |
| Torque | | 0.6 Nm ± 0.1 Nm | 5.31 lb.in ± 0.885 lb.in | ± 0.1 Nm | ± 0.885 lb.in |
| Mechanical endurance of disconnect system | | | | | |



Material Specifications

| | | |
|---------------------|----------------------------------|------------------|
| Insulating material | | Polyamide |
| IRC | | 600 V |
| Flammability | UL94 | V0 |
| | NF F 16 101 | I2F2 |
| | Needle flame test IEC 60695-11-5 | Compliant |

Connecting capacity per clamp

| | | | | |
|--------------------------------------|---|------------------------------|--|-----------|
| 1 Rigid conductor | | 0.2-4 mm² | | 24-10 AWG |
| 1 Flexible conductor without ferrule | | 0.22-4 mm² | | 24-10 AWG |
| 1 Flexible conductor with ferrule | | 0.22-4 mm² | | 24-12 AWG |
| Ferrule maximum outer diameter |  | 5.5 mm | | 0.216 in |

Multi Connecting capacity per clamp

| | | | | |
|---|--|--------------------------------|--|-----------|
| 2 Rigid conductors | | 0.2-1 mm² | | 24-18 AWG |
| 2 Flexible conductors without ferrule | | 0.22-1 mm² | | 24-18 AWG |
| 2 Flexible conductors with twin ferrule | | 0.22-1.5 mm² | | 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

Cross section

| | | | | |
|-----------------------|--|-------------------------|-------------------|--------|
| Rated cross section | | 4 mm² | | 10 AWG |
| Maximum Cross section | Manufacturer data | 4 mm² | Manufacturer data | 10 AWG |
| Gauge | A3-B3 / 3 mm / 0.118 in / IEC 60947-7-1 | | | |

Electrical characteristics

Current

| | | | |
|---|--------------------------------|-------------------|---------------------------------|
| Rated current | | IEC 60947-7-1 | 26 A |
| | Field and factory wiring Cat.2 | UL 1059 | 26 A |
| | Factory wiring Cat.1 | UL 1059 | 26 A |
| | | CSA-C-22.2 n° 158 | |
| Rated short-time withstand current 1 s (I _{cw}) | | | 480 A |
| Short-time withstand current | 0.5 s | Manufacturer data | |
| | 5 s | Manufacturer data | |
| | 10 s | Manufacturer data | |
| | 30 s | Manufacturer data | |
| | 1 mn | Manufacturer data | |
| Rated short circuit withstand | | CSA-C-22.2 n° 158 | |
| Max. current (45° temperature increase) / Max. cross section (mm ²) | | Manufacturer data | 26 A 4 mm² |
| Maximum short circuit current (1s) | | Manufacturer data | 480 A |

Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR UL 1059

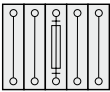
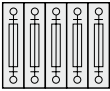
With the following configurations:

| | |
|-------------------------------|--|
| Maximum voltage | |
| Suitable conductor wire range | |
| Fuse rating | |
| Fuse designation | |
| Fuse manufacturer name | |
| Fuse type | |
| Short circuit current | |

| Voltage | | | |
|---------------------------------|-------------------|--|---------------|
| Rated voltage | IEC 60947-1 | | 400 V |
| Rated voltage | UL 1059 | | 150 V |
| Use Group | UL 1059 | | C |
| Rated voltage | CSA-C-22.2 n° 158 | | 150 V |
| Rated voltage Ex e | IEC/EN 60079-11 | | |
| Rated impulse withstand voltage | | | 6000 V |
| Dielectric test voltage | | | 1890 V |
| Pollution degree | IEC 60947-1 | | 3 |
| Overvoltage category | IEC 60947-1 | | III |

| Dissipated power | | | |
|---|-----|--|--------------|
| Maximum dissipated power at rated current | IEC | | 0.8 W |

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

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

| Temperature range | | | | |
|-----------------------------|------------|-----------------------------|--------------------|-------------------|
| Ambient temperature min/max | Storage | | -55 +110 °C | <i>-67 +230 F</i> |
| | Installing | | -5 +40 °C | <i>-23 +104 F</i> |
| | Service | IEC 60068-2-1 EN 60079-7 | -55 +110 °C | <i>-67 +230 F</i> |

Current Derating curve for continuous service temperature

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 | |
| | | Number of cycles | 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 dm³ | |
| 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 | | |

Vibrations

| | | | | | | |
|--|------------|--|---------------------------|--|--|--|
| Vibrations | Conditions | IEC 60068-2-6 | Compliant | | | |
| | | Frequency range | 10-55 Hz | | | |
| | | Number of cycles | 10 | | | |
| | | Amplitude | | | | |
| | | Acceleration | 10 m/s² | | | |
| Random vibrations and climatic sequence | Conditions | IEC 60068-2-64 | | | | |
| | | 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-S-R1 Terminal Block Accessories Compatibility

| Description | Type | Order Code | Pack ^(ing) pieces | Weight g (1 pce) | Technical Datasheet PDF |
|---------------------------------|----------------|---------------------------|---------------------------------|---------------------|----------------------------|
| 1 End Stops | BAM3 | 1SNK 900 001 R0000 | 50 | 13.80 | 1SNK 160 026 D0201 |
| 2 Jumper Bars | JB6-2 | 1SNK 906 302 R0000 | 50 | 1.30 | 1SNK 160 029 D0201 |
| | JB6-3 | 1SNK 906 303 R0000 | 50 | 2.10 | 1SNK 160 029 D0201 |
| | JB6-4 | 1SNK 906 304 R0000 | 50 | 2.90 | 1SNK 160 029 D0201 |
| | JB6-5 | 1SNK 906 305 R0000 | 50 | 3.60 | 1SNK 160 029 D0201 |
| | JB6-10 | 1SNK 906 310 R0000 | 20 | 7.40 | 1SNK 160 029 D0201 |
| 3 Test Adapters | TP2 | 1SNK 900 203 R0000 | 20 | 1.73 | 1SNK 160 036 D0201 |
| | TP4 | 1SNK 900 205 R0000 | 20 | 2.42 | 1SNK 160 036 D0201 |
| 4 Test Connectors | TC5-R1 | 1SNK 900 201 R0000 | 10 | 5.23 | 1SNK 160 042 D0201 |
| 5 Spacers | ES-TC6 | 1SNK 900 105 R0000 | 10 | 0.80 | 1SNK 160 042 D0201 |
| 6 Tools | PS-3 | 1SNK 900 650 R0000 | 1 | 380.00 | 1SNK 160 024 D0201 |
| 7 Terminal Block Markers | MC612 | 1SNK 150 000 R0000 | 22 | 0.06 | 1SNK 160 006 D0201 |
| | PROCAP6 | 1SNK 900 612 R0000 | 20 | 0.79 | 1SNK 160 013 D0201 |
| | UMH | 1SNK 900 611 R0000 | 10 | 0.20 | 1SNK 160 001 D0201 |
| | SAT6 | 1SNK 900 615 R0000 | 5 | 6.00 | 1SNK 160 013 D0201 |