



## ZS4-S-R2 Screw Clamp Terminal Block

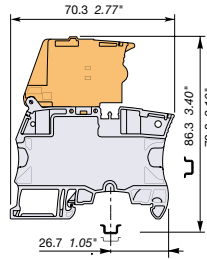
### Disconnect



**4 mm<sup>2</sup>**  
**10 AWG**

**6 mm 0.236 in Spacing**

#### Features and Benefits



Simplify the disconnect operations for the disconnect terminal blocks installed next to fuse terminal blocks ZS4-SF:

- With the same profile as ZS4-SF, the ZS4-S-R2 disconnect lever is easily operated by hand and the wiring of the alternated disconnect and fuse circuits is easier.

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

Ordering Details	Type	Order Code	EAN Code	Pack <sup>(fmg)</sup>	Weight g (1 pce)
Grey-Orange	ZS4-S-R2	1SNK 506 414 R0000	3472595064144	50	21.60
Declarations and Certificates		Document Part Number			
	UE Directive	1SND 225 099 C1001			
	RoHS	1SND 230 491 F0203			

### General Information

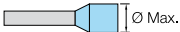
The following information must be strictly adhered to in order to guarantee the terminal block electrical, mechanical and environmental performance.

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		<b>Polyamide</b>
IRC		<b>600 V</b>
Flammability	UL94	<b>V0</b>
	<b>NF F 16 101</b>	<b>I2F2</b>
	Needle flame test IEC 60695-11-5	<b>Compliant</b>

## Connecting capacity per clamp

1 Rigid conductor		<b>0.2-4 mm<sup>2</sup></b>		24-10 AWG
1 Flexible conductor without ferrule		<b>0.22-4 mm<sup>2</sup></b>		24-10 AWG
1 Flexible conductor with ferrule		<b>0.22-4 mm<sup>2</sup></b>		24-12 AWG
Ferrule maximum outer diameter		<b>5.5 mm</b>		0.216 in

## Multi Connecting capacity per clamp

2 Rigid conductors		<b>0.2-1 mm<sup>2</sup></b>		24-18 AWG
2 Flexible conductors without ferrule		<b>0.22-1 mm<sup>2</sup></b>		24-18 AWG
2 Flexible conductors with twin ferrule		<b>0.22-1.5 mm<sup>2</sup></b>		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		<b>4 mm<sup>2</sup></b>		10 AWG
Maximum Cross section	<b>Manufacturer data</b>	<b>4 mm<sup>2</sup></b>	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	<b>22 A</b>
	Field and factory wiring Cat.2	UL 1059	<b>22 A</b>
	Factory wiring Cat.1	UL 1059	
		CSA-C-22.2 n° 158	
Rated short-time withstand current 1 s (I <sub>cw</sub> )			<b>480 A</b>
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 <sup>2</sup> )		Manufacturer data	<b>22 A 4 mm<sup>2</sup></b>
Maximum short circuit current (1s)		Manufacturer data	<b>480 A</b>

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

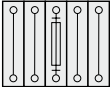
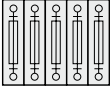
SCCR UL 1059

With the following configurations:

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

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

<b>Dissipated power</b>			
Maximum dissipated power at rated current	IEC		

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

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

Current Derating curve for continuous service temperature

## Environmental Characteristics

### Additional climatic tests

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

### Corrosion

Salt mist	Conditions	IEC 60068-2-11	<b>Compliant</b>	
		Duration of test	<b>96 h</b>	
		Concentration	<b>5 %</b>	
SO <sub>2</sub>	Conditions	ISO 6988	<b>Compliant</b>	
		Duration of test	<b>48 h</b>	
		Concentration	<b>0.2 dm<sup>3</sup></b>	
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	<b>Compliant</b>			
		Frequency range	<b>10-55 Hz</b>			
		Number of cycles	<b>10</b>			
		Amplitude				
		Acceleration	<b>10 m/s<sup>2</sup></b>			
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-R2 Terminal Block Accessories Compatibility**

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