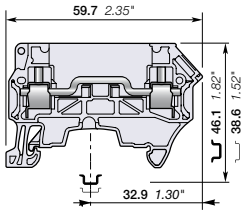
ZS4-R1 Screw Clamp Terminal Block
Feed-through

4 mm²
10 AWG

8 mm *0.315 in* Spacing



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

Features and Benefits

Simplify the alternated feed-through and fuse circuits operations:

- With the same profile as the ZS4-SF1, the wiring of the alternated feed-through and fuse circuits is easier.

Ordering Details		Type	Order Code	EAN Code	Pack[ing]	Weight g (1 pce)
Grey	☐	**ZS4-R1**	**1SNK 508 013 R0000**	**3472595080137**	**50**	**11.00**

Declarations and Certificates	Document Part Number
CE — **UE Directive**	**1SND 225 081 C1006**
CB — **Third Party Certificate**	**1SND 161 031 A0200**
RoHS — **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		**11 mm**	*0.433 in*			

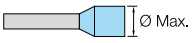
		Screw clamp		Screw rail contact (Maximum value)		
Operating tool		**Flat screwdriver**				
		3.5 mm	*0.138 in*			
Torque		**0.6 Nm** ± **0.1 Nm**	*5.31 lb.in* ± *0.885 lb.in*	± **0.1 Nm**	± *0.885 lb.in*	
Mechanical endurance of disconnect system						

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		**2.5 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	**24 A**
	Field and factory wiring Cat.2	UL 1059	**26 A**
	Factory wiring Cat.1	UL 1059	
		CSA-C-22.2 n° 158	**26 A**
Rated short-time withstand current 1 s (Icw)			**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 (mm²)		Manufacturer data	**28 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	

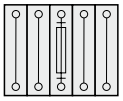
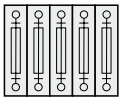
Voltage

Rated voltage	IEC 60947-1	**800 V**
Rated voltage	UL 1059	**300 V**
Use Group	UL 1059	**C**
Rated voltage	CSA-C-22.2 n° 158	**300 V**
Rated voltage Ex e	IEC/EN 60079-11	
Rated impulse withstand voltage		**8000 V**
Dielectric test voltage		**2200 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**

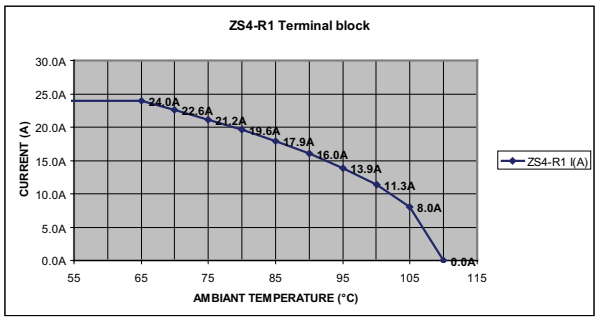
Rated power dissipation at an ambient temperature of 23 °C - IEC 60947-7-3

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

Temperature range

Ambient temperature min/max	Storage		**-55 +110 °C**	*-67 +230 F*
	Installing		**-5 +40 °C**	*-23 +104 F*
	Service	IEC 60068-2-1	**-55 +110 °C**	*-67 +230 F*
		EN 60079-7	**-55 +85 °C**	

Current Derating curve for continuous service temperature



Environmental Characteristics

Additional climatic tests

Dry heat		IEC 60068-2-2	**Compliant**	
	Conditions	Temperature	**+100 °C**	
		Duration of test	**96 h**	
Cyclic damp heat		IEC 60068-2-30	**Compliant**	
	Conditions	Temperature	**+55 °C**	
		Number of cycles	**2**	
Cold		IEC 60068-2-1	**Compliant**	
	Conditions	Temperature	**-40 °C**	
		Duration of test	**96 h**	
Z/ABDM climatic sequence		IEC 60068-2-61	**Compliant**	
	Conditions	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		IEC 60068-2-11	**Compliant**	
	Conditions	Duration of test	**96 h**	
		Concentration	**5 %**	
SO2		ISO 6988	**Compliant**	
	Conditions	Duration of test	**48 h**	
		Concentration	**0.2 dm³**	
Sulfur dioxide		IEC 60068-2-42		
	Conditions	Duration of test		
Hydrogen sulfur		IEC 60068-2-43		
	Conditions	Duration of test		
Flowing mixed gas corrosion test		IEC 60068-2-60		
	Conditions	Number of the test method		
		Duration of test		

Vibrations

Vibrations		IEC 60068-2-6	**Compliant**	
	Conditions	Frequency range	**10-55 Hz**	
		Number of cycles	**10**	
		Amplitude		
		Acceleration	**10 m/s²**	
Ramdom vibrations and climatic sequence		IEC 60068-2-64		
	Conditions	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-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	End Sections	**ES4-SF**	**1SNK 508 960 R0000**	20	1.82	**1SNK 160 019 D0201**
3	Protecting Covers	**CO**	**1SNK 900 604 R0000**	1	300.00	**1SNK 160 020 D0201**
4	Tools	**PS-3**	**1SNK 900 650 R0000**	1	380.00	**1SNK 160 024 D0201**
5	Terminal Block Markers	**MC812**	**1SNK 160 000 R0000**	22	0.09	**1SNK 160 009 D0201**
		UMH	**1SNK 900 611 R0000**	10	0.20	**1SNK 160 001 D0201**
		PROCAP8	**1SNK 900 613 R0000**	20	1.00	**1SNK 160 013 D0201**
		SAT8	**1SNK 900 616 R0000**	5	6.00	**1SNK 160 013 D0201**