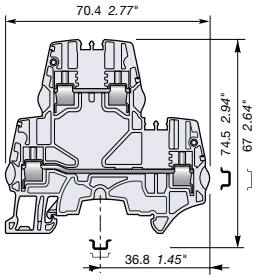
ZS4-D2 Screw Clamp Terminal Block
Double deck

4 mm²
12 AWG

5.2 mm *0.205 in* Spacing



Features and Benefits

Save space:

- High wiring density on two decks,
- Connection of conductors up to 4 mm² (CB certified) *12 AWG* in just 5.2 mm *0.205 in* spacing.

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

Ordering Details		Type	Order Code	EAN Code	Pack[ing]	Weight g (1 pce)
Grey		**ZS4-D2**	**1SNK 505 210 R0000**	**3472595052103**	**50**	**15.25**
Blue		**ZS4-D2-BL**	**1SNK 505 220 R0000**	**3472595052202**	**50**	**15.25**
Orange		**ZS4-D2-OR**	**1SNK 505 230 R0000**	**3472595052301**	**50**	**15.25**

Declarations and Certificates		Document Part Number
CE	**UE Directive**	**1SND 225 081 C1006**
CB	**Third Party Certificate**	**1SND 161 023 A0200**
RoHS	**RoHS**	**1SND 230 491 F0203**
Atex Declaration	**Atex Declaration**	**1SND 225 085 C1003**

Explosive Atmosphere: ATEX Classification	
Group Category	Protection Method
IM 2 II 2GD *	Ex e: increased security
* 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.

Protection		**IP 20**	*NEMA 1*				
Rail		**DIN3-TH35**					
Wire stripping length		**10 mm**	*0.394 in*				

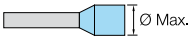
		Screw clamp		Screw rail contact (Maximum value)			
Operating tool		**Flat screwdriver**					
		**3.5 mm**	*0.138 in*				
Torque		**0.6 Nm** **± 0.1 Nm**	*5.31 lb.in* *± 0.885 lb.in*	**± 0.1 Nm**	*± 0.885 lb.in*		
Mechanical endurance of disconnect system							

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**		*24-12 AWG*
1 Flexible conductor with ferrule		**0.22-4 mm²**		*24-12 AWG*

Ferrule maximum outer diameter		**4.7 mm**	*0.185 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**		*22-16 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**		*12 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

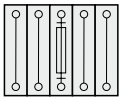
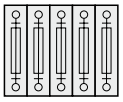
Current

Rated current		IEC 60947-7-1	**29 A**
	Field and factory wiring Cat.2	UL 1059	**20 A**
	Factory wiring Cat.1	UL 1059	
		CSA-C-22.2 n° 158	**20 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	**29 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	

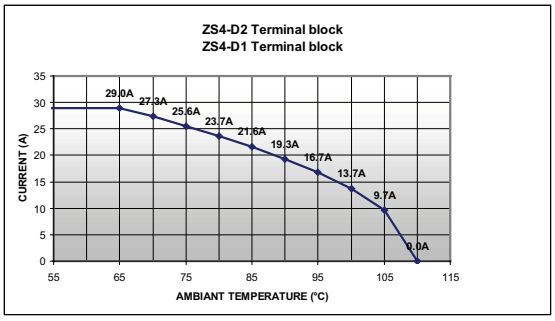
Voltage		
Rated voltage	IEC 60947-1	**800 V**
Rated voltage	UL 1059	**300 V**
Use Group	UL 1059	**C**
Rated voltage	CSA-C-22.2 n° 158	**300 V**
Rated voltage Ex e	IEC/EN 60079-11	**400 V**
Rated impulse withstand voltage		**8000 V**
Dielectric test voltage		**2000 V**
Pollution degree	IEC 60947-1	**3**
Overvoltage category	IEC 60947-1	**III**

Dissipated power		
Maximum dissipated power at rated current	IEC	**1.9 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-D2 Terminal Block Accessories Compatibility

	Description	Type	Order Code	Pack[ing] pieces	Weight g (1 pce)	Technical Datasheet PDF
1	End Stops	**BAZH1**	**1SNK 900 102 R0000**	20	23.90	**1SNK 160 026 D0201**
2	End Sections	**ES4-D2**	**1SNK 505 960 R0000**	20	4.10	**1SNK 160 022 D0201**
3	Jumper Bars	**JB5-2**	**1SNK 905 302 R0000**	50	1.30	**1SNK 160 027 D0201**
		JB5-3	**1SNK 905 303 R0000**	50	2.00	**1SNK 160 027 D0201**
		JB5-4	**1SNK 905 304 R0000**	50	2.70	**1SNK 160 027 D0201**
		JB5-5	**1SNK 905 305 R0000**	50	3.50	**1SNK 160 027 D0201**
		JB5-10	**1SNK 905 310 R0000**	30	7.10	**1SNK 160 027 D0201**
4	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**
5	Test Connectors	**TC5**	**1SNK 900 200 R0000**	10	5.23	**1SNK 160 042 D0201**
		TC5-R1	**1SNK 900 201 R0000**	10	5.23	**1SNK 160 042 D0201**
6	Shield Connectors	**SHB**	**1SNK 900 602 R0000**	20	4.90	**1SNK 160 025 D0201**
7	Tools	**PS-3**	**1SNK 900 650 R0000**	1	380.00	**1SNK 160 024 D0201**
8	Terminal Block Markers	**MC512**	**1SNK 140 000 R0000**	22	0.06	**1SNK 160 003 D0201**
		PROCAP5	**1SNK 900 609 R0000**	20	0.70	**1SNK 160 013 D0201**
		UMH	**1SNK 900 611 R0000**	10	0.20	**1SNK 160 001 D0201**
		SAT5	**1SNK 900 614 R0000**	5	6.00	**1SNK 160 013 D0201**