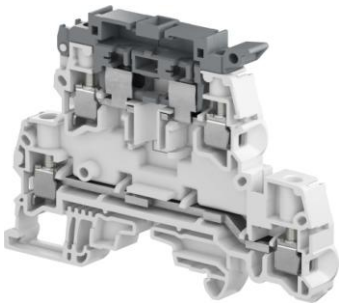
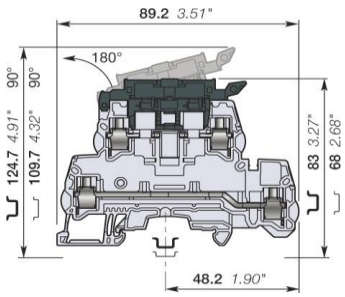
ZS4-D2-SF1 Screw Clamp Terminal Blocks
Double deck with 1 fuse circuit and 1 feed-through circuit

- Save space: connect one complete circuit on a single block featuring fuse and feed-through for the return circuit,
- Protect your circuit with either 5X20 or 5X25 fuse (fuse not supplied with the terminal blocks),
- High performances product: compliant with IEC 60947-7-3 standard and jumper channel for the feed-through circuit.





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

4 mm²	
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-D2-SF1	1SNK508425R0000	3472595084258	50	27.5

Declarations and Certificates

CE	CB	RoHS	USR			Gost R			
		BV							

Power and productivity for a better world™

Declarations and Certificates

CE	CE	1SND225098C10*
CB	CB	1SND161102A02*
RoHS	RoHs	1SND230491F02*
USR	USR	1SND161041A02*
CSA	CSA	1SND161070A02*
Gost R	GOST R	1SND161005A11*
BV	BV	1SND161073A02*

General Information

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

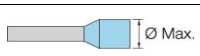
Protection	IEC 60947-1	IP20	*NEMA250*					
Rail		TH 35-7.5, TH 35-15						
Wire stripping length		11 mm	*0.433 in*					

		Screw clamp		Screw rail contact (Maximum value)		Disconnect device		
Operating tool		Flat screwdriver						
		3.5 mm	*0.138 in*					
Torque		0.6 N.m	*5.31 lb.in*					
		± 0.1 N.m	*± 0.885 lb.in*					

Material Specifications

Insulating material		Polyamide
CTI		600 V
Flammability	UL94	V0
	NF F 16101	I2F2
	Needle flame test IEC 60615-11-5	Compliant

Connecting capacity per clamp

		Screw clamp			
1 Rigid - Solid / Stranded conductor	Norme	IEC60947-7-3	UL1059		
	Value	0.2 ... 6 mm²	24 ... 10 AWG		
1 Flexible conductor	Norme	IEC60947-7-3			
	Value	0.22 ... 4 mm²			
1 Flexible conductor with non insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 4 mm²	24 ... 12 AWG		
1 Flexible conductor with insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 4 mm²	24 ... 12 AWG		
Gauge		A3-B3	3 mm		
		IEC 60947-1			
Ferrule maximum outer diameter or conductor insulation maximum outer diameter			Manufacturer data	5.5 mm	

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

Multi Connecting capacity per clamp

2 Rigid - Solid / Stranded conductors	Norme	IEC60947-7-3	UL1059		
	Value	0.2 ... 1.5 mm²	24 ... 16 AWG		
2 Flexible conductors	Norme	IEC60947-7-3			
	Value	0.2 ... 1.5 mm²			
2 Flexible conductors with twin ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	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 (crimping capacity up to 10 mm²)

Cross section

Rated cross section	IEC60947-7-3	4 mm²	UL1059	10 AWG
Maximum Cross section	Manufacturer data	4 mm²	Manufacturer data	*10 AWG*

Electrical characteristics

Current

Rated current			IEC60947-7-3	6.3 A	
	Field and factory wiring Cat.2		UL 1059	12 A	
	Factory wiring Cat.1		UL 1059		
			CSA-C-22.2 n°158	12 A	
Maximum Exe current			IEC/EN 60079-7		
Rated short-time withstand current 1 s (Icw)			IEC60947-7-3	480 A	
Short-time withstand current		0.5 s	Manufacturer data		
		5 s	Manufacturer data		
		10 s	Manufacturer data		
		30 s	Manufacturer data		
		1 min	Manufacturer data		
Rated short-circuit withstand current			CSA-C-22.2 n°158		
Max. current (45° temperature increase) / Max. cross section (mm²)			Manufacturer data	6.3 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:				
	Suitable conductor wire range			
	Maximum voltage			
	Fuse class / Max. amp. Rating		J	
			T	
			RK1	
			RK5	
			G	
			CC	

Voltage

Rated voltage	IEC 60947-1	800 V
Rated voltage	UL 1059	300 V
Use Group	UL 1059	B, C, D
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	2000 V
Pollution degree	IEC 60947-1	3
Overvoltage category	IEC 60947-1	III

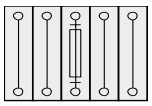
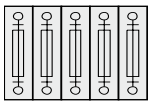
Temperature range

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*

Dissipated power

Maximum dissipated power at rated current	IEC 60947-1	
Maximum dissipated power at maximum Exe current	IEC 60079-7	

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		IEC 60068-2 2	Compliant
	Conditions	Temperature	110 °C
		Duration of test	96 h
Cyclic damp heat		IEC 60068-2 30	Compliant
	Conditions	Temperature	55 °C
		Relative humidity	95 %
		Number of cycles (1 cycle = 24h)	2
Cold		IEC 60068-2 1	Compliant
	Conditions	Temperature	-55 °C
		Duration of test	96 h
Damp heat steady state		IEC 60068-2-78	Compliant
	Conditions	Temperature	40 °C
		Relative humidity	93 %
		Duration of test	96 h

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 dm^3
Flowing mixed gas corrosion test		IEC 60068-2 60	Compliant
	Conditions	Number of the test method	3
		Duration of test	21 j

Vibrations and shocks

Sinusoidal vibrations		IEC 60068-2-6	Compliant
	Conditions	Frequency range	5 ... 100 Hz
		Number of cycles	1
		Acceleration	7 m/s²
Functional random vibrations		IEC 61373	
Category 1 Class B 3 axes	Conditions	Duration of test	
		Frequency range	
		Acceleration	
Long life testing at increased random vibrations		IEC 61373	
Category 1 Class B 3 axes	Conditions	Duration of test	
		Frequency range	
		Acceleration	
Shock		IEC 61373	
Category 1 Class B 3 axes	Conditions	Duration of test	
		Acceleration	

ZS4-D2-SF1 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)	
1	End Stops	BAZH1	1SNK900102R0000	20	23.90	
2	End Sections	ES4-D2-SF1	1SNK508911R0000	20	5	
3	Jumper Bars	JB8-2	1SNK908302R0000	50	2.70	
		JB8-3	1SNK908303R0000	50	4.10	
		JB8-4	1SNK908304R0000	50	5.60	
		JB8-5	1SNK908305R0000	40	7.00	
		JB8-10	1SNK908310R0000	20	14.20	
4	Lateral Jumper Bars	PC81-10	1SNA173523R1100	10	5.00	
5	Test Adapters	TP2	1SNK900203R0000	20	1.73	
		TP4	1SNK900205R0000	20	2.41	
6	Test Connectors	TC5	1SNK900200R0000	10	5.23	
		TC5-R1	1SNK900201R0000	10	5.23	
7	Spacers	ES-TC8	1SNK900104R0000	10	1.35	
8	Mounting Rails	PR3.G2	1SNA164800R0300	2		
		PR4	1SNA168500R1200	2	915.00	
		PR5	1SNA168700R2200	2		
		PR30	1SNA173220R0500	2	328.00	
		PR3.Z2	1SNA174300R1700	2		
		PR50	1SNA178529R0400	2	1 288.00	
9	Tools	PS-3	1SNK900650R0000	1	380.00	
10	Terminal Block Markers	MC512	1SNK140000R0000	22	9.00	
		MC512-YL	1SNK140004R0000	22	9.00	
		MC512PA	1SNK149999R0000	20	10.00	
		MC612	1SNK150000R0000	22	10.00	
		MC612-YL	1SNK150004R0000	22	10.00	
		MC612PA	1SNK159999R0000	20	11.00	
		MC812	1SNK160000R0000	22	10.00	
		MC812-YL	1SNK160004R0000	22	10.00	
		MC812PA	1SNK169999R0000	20	14.00	
		UMH	1SNK900611R0000	10	0.20	
		PROCAP8	1SNK900613R0000	20	1.00	
		SAT8	1SNK900616R0000	5	6.00	
		SAT	1SNK900623R0000	5	6.00	

Contact us

ABB France
Low Voltage Products Division
Export Department
10, rue Ampère Z.I. - B.P. 114
F-69685 Chassieu cedex / France
Tel. +33 (0)4 7222 1722
Fax +33 (0)4 7222 1935

1SNK162035D0201 - PDF

Power and productivity
for a better world™