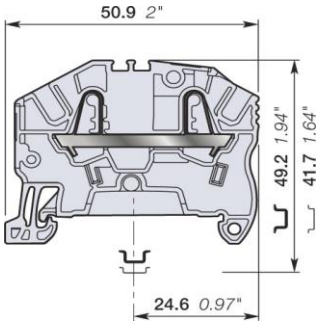
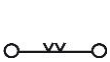
ZK2.5 PI-Spring Terminal Blocks
Feed-through

Combine high performance with compact dimensions:
- 1000 V AC / DC IEC 600 V UL,
- Opt for the best marking visibility thanks to the up-front, flat marker zone, which lets you mark up to eight digits or increase the font size.



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



2.5 mm²
12 AWG

5.2 mm *0.205 in* **Spacing**

Ordering Details

Color	Type	Order Code	EAN Code	Pack[ing]	Weight (1 pce) g
Grey	ZK2.5	1SNK705010R0000	3472597050107	50	5.50
Blue	ZK2.5-BL	1SNK705020R0000	3472597050206	50	5.50
Orange	ZK2.5-OR	1SNK705030R0000	3472597050305	50	5.50
Yellow	ZK2.5-YL	1SNK705060R0000	3472597050602	50	5.50
Green	ZK2.5-GN	1SNK705061R0000	3472597050619	50	5.50
Red	ZK2.5-RD	1SNK705062R0000	3472597050626	50	5.50
White	ZK2.5-WH	1SNK705065R0000	3472597050657	50	5.50
Black	ZK2.5-BK	1SNK705066R0000	3472597050664	50	5.50

Declarations and Certificates

CE	CB	RoHS	USR CNR			EAC Ex	ATEX	IECEx	

	Haz Loc	BV		DNV		ATEX Declaration

Power and productivity for a better world™

Declarations and Certificates

	CE	1SND225104U10*
	CB	1SND162016A02*
RoHS	RoHS	1SND230535F02*
	USR CNR	1SND162012A02*
		1SND162012A02*
	CSA	1SND162014A02*
	EAC Ex	
	ATEX	1SND162009A17*
	IECEx	1SND162010A17*
	USR CNR Haz Loc	1SND162024A02*
	BV	1SND162013A02*
	DNV	1SND162023A02*
Atex Declaration	Atex Declaration	1SND225085C10*

Explosive Atmosphere: ATEX Classification

Group Category	Protection Method
IM2 II 2 GD Ex eb I/IIC/IIIC	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.

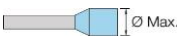
Protection	IEC 60947-1	IP20		*NEMA 1*				
Rail		TH 35-7.5, TH 35-15						
Wire stripping length		11 mm	*0.433 in*					

		Screw clamp		Screw rail contact (Maximum value)		Disconnect device		
Operating tool		Flat screwdriver						
		3.5 mm	*0.138 in*					

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

		PI Spring			
1 Rigid - Solid / Stranded conductor	Norme	IEC60947-7-1	UL1059		
	Value	0.2 ... 4 mm²	26 ... 12 AWG		
1 Flexible conductor	Norme	IEC60947-7-1			
	Value	0.22 ... 2.5 mm²			
1 Flexible conductor with non insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 2.5 mm²	26 ... 14 AWG		
1 Flexible conductor with insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 2.5 mm²	26 ... 14 AWG		
Gauge		A2 / 2.3 mm Dia.			
		IEC 60947-1			
Ferrule maximum outer diameter or conductor insulation maximum outer diameter			Manufacturer data	4.65 mm	0.187 in

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				
	Value				
2 Flexible conductors	Norme				
	Value				
2 Flexible conductors with twin ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.22 ... 0.5 mm²	26 ... 20 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	IEC60947-7-1	2.5 mm²	UL1059	12 AWG
Maximum Cross section	Manufacturer data	4 mm²	Manufacturer data	*12 AWG*

Electrical characteristics

Current

Rated current			IEC60947-7-1	24 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
Maximum Exe current			IEC/EN 60079-7	21 A
Rated short-time withstand current 1 s (Icw)			IEC60947-7-1	300 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			UL 1059	396 A
Max. current (45° temperature increase) / Max. cross section (mm²)			Manufacturer data	30 A / 4 mm²
Maximum short circuit current (1s)			Manufacturer data	300 A

Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR			UL 1059	100 kA
With the following configurations:				
	Suitable conductor wire range			14 ... 12 AWG
	Maximum voltage			600 V
	Fuse class / Max. amp. Rating		J	110 A
			T	110 A
			RK1	100 A
			RK5	30 A
			G	60 A
			CC	30 A

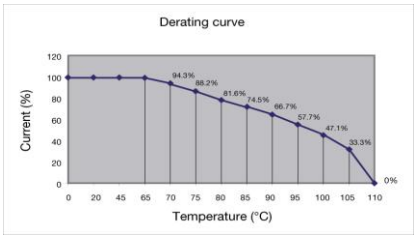
Voltage

Rated voltage	IEC 60947-1	1000 V
Rated voltage	UL 1059	600 V
Use Group	UL 1059	B, C, D
Rated voltage	CSA-C-22.2 n°158	600 V
Rated voltage Ex e	IEC/ EN 60079-7	693 V
Rated impulse withstand voltage	IEC 60947-1	8000 V
Dielectric test voltage	IEC 60947-1	2200 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*

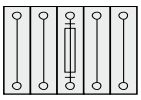
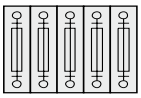
Current Derating curve for continuous service temperature



Dissipated power

Maximum dissipated power at rated current	IEC 60947-1	0.8 W
Maximum dissipated power at maximum Exe current	IEC 60079-7	0,7 W

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

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

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	1000 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	Compliant
Category 1 Class B 3 axes	Conditions	Duration of test	20 mn
		Frequency range	5 ... 150 Hz
		Acceleration	1 m/s²
Long life testing at increased random vibrations		IEC 61373	Compliant
Category 1 Class B 3 axes	Conditions	Duration of test	5 h
		Frequency range	5 ... 150 Hz
		Acceleration	5,7 m/s²
Shock		IEC 61373	Compliant
Category 1 Class B 3 axes	Conditions	Duration of test	30 ms
		Acceleration	5 G

ZK2.5 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	Terminal Block Markers	**MG-CPM 13**	**1SNB041790R0512**	1960	0.236	
		MC512	**1SNK140000R0000**	22	9.00	
		MC512-YL	**1SNK140004R0000**	22	9.00	
		MC512PA	**1SNK149999R0000**	20	10.00	
		PROCAP5	**1SNK900609R0000**	20	0.70	
		UMH	**1SNK900611R0000**	10	0.20	
		SAT5	**1SNK900614R0000**	5	6.00	
2	Mounting Rails	**PR3.G2**	**1SNA164800R0300**	2	718.00	
		PR4	**1SNA168500R1200**	2	915.00	
		PR5	**1SNA168700R2200**	2	700	
		PR30	**1SNA173220R0500**	2	328.00	
		PR3.Z2	**1SNA174300R1700**	2	718.00	
		PR50	**1SNA178529R0400**	2	1288.00	
3	End Sections	**EK2.5**	**1SNK705910R0000**	20	1.80	
4	End Stops	**BAM4**	**1SNK900001R0000**	50	14.00	
		BAZ1	**1SNK900002R0000**	50	5.30	
		BAZH1	**1SNK900102R0000**	20	24.00	
5	Circuit Separators	**CS-R1**	**1SNK900103R0000**	20	5.20	
		CS-R2	**1SNK900106R0000**	20	3.80	
		CS-R3	**1SNK900107R0000**	20	6.40	
6	Test Connectors	**TC5**	**1SNK900200R0000**	10	5.20	
		TC5-R1	**1SNK900201R0000**	10	5.20	
7	Test Adapters	**TP2**	**1SNK900203R0000**	20	1.70	
		TP4	**1SNK900205R0000**	20	2.40	
8	Component Plugs	**PG5-R2**	**1SNK900403R0000**	20	8.00	
9	Shield Connectors	**SHBP**	**1SNK900601R0000**	20	4.10	
10	Cross Spacing Jumpers	**JB85-3**	**1SNK900603R0000**	10	2.80	
11	Tools	**PS-3**	**1SNK900650R0000**	1	380.00	
			1SNK900659R0000			
12	Jumper Bars	**JB5-2**	**1SNK905302R0000**	50	1.30	
		JB5-3	**1SNK905303R0000**	50	2.00	
		JB5-4	**1SNK905304R0000**	50	2.70	
		JB5-5	**1SNK905305R0000**	50	3.50	
		JB5-10	**1SNK905310R0000**	30	7.10	
		JB5-50	**1SNK905350R0000**	10	36.00	

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