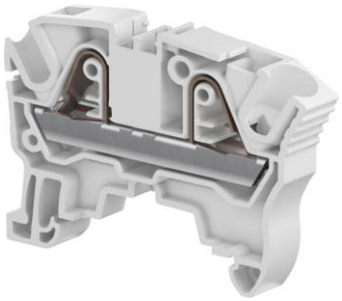
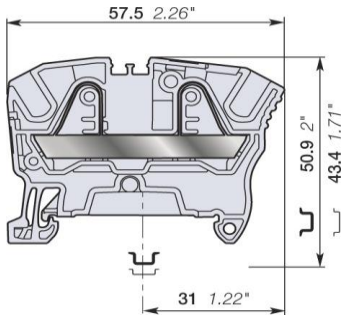
ZK6 PI-Spring Terminal Blocks
Feed-through

Combine high performance with compact dimensions:
- 1000 V 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

	PI-Spring Terminal Blocks	6 mm²
		8 AWG
8 mm	*0.315 in*	Spacing

Ordering Details

Color	Type	Order Code	EAN Code	Pack(ing)	Weight (1 pce) g
Grey	ZK6	1SNK708010R0000	3472597080104	50	11.8
Blue	ZK6-BL	1SNK708020R0000	3472597080203	50	11.8
Orange	ZK6-OR	1SNK708030R0000	3472597080302	50	11.8

Declarations and Certificates

CE	CB	RoHS	USR CNR			Gost R	ATEX	IECEx	

		BV				ATEX Declaration

Power and productivity for a better world™

Declarations and Certificates

CE	CE	1SND225150C10*
CB	CB	1SND162016A02*
RoHS	RoHs	1SND230535F02*
USR CNR	USR CNR	1SND162012A02*
	CSA	1SND162014A02*
Gost R	GOST R	1SND161005A11*
ATEX	ATEX	1SND162009A17*
IECEx	IECEx	1SND162010A17*
BV	BV	1SND162013A02*
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.

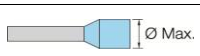
Protection	IEC 60947-1	IP20	*NEMA250*					
Rail		TH 35-7.5, TH 35-15						
Wire stripping length		12.5 mm	*0.492 in*					

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

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	0.5 ... 10 mm²	24 ... 8 AWG		
1 Flexible conductor	Norme	IEC60947-7-1			
	Value	0.5 ... 6 mm²			
1 Flexible conductor with non insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.5 ... 6 mm²	24 ... 10 AWG		
1 Flexible conductor with insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.5 ... 6 mm²	24 ... 10 AWG		
Gauge			3.9 mm		
		IEC 60947-1			
Ferrule maximum outer diameter or conductor insulation maximum outer diameter			Manufacturer data	7.3 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				
	Value				
2 Flexible conductors	Norme				
	Value				
2 Flexible conductors with twin ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.5 ... 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	IEC60947-7-1	6 mm²	UL1059	8 AWG
Maximum Cross section	Manufacturer data	10 mm²	Manufacturer data	*8 AWG*

Electrical characteristics

Current

Rated current			IEC60947-7-1	41 A	
	Field and factory wiring Cat.2		UL 1059	50 A	
	Factory wiring Cat.1		UL 1059		
			CSA-C-22.2 n°158	50 A	
Maximum Exe current			IEC/EN 60079-7	37 A	
Rated short-time withstand current 1 s (Icw)			IEC60947-7-1	720 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	56 A	10 mm²
Maximum short circuit current (1s)			Manufacturer data	720 A	

Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR			UL 1059	100 kA
With the following configurations:				
	Suitable conductor wire range			10 ... 8 AWG
	Maximum voltage			600 V
	Fuse class / Max. amp. Rating		J	250 A
			T	250 A
			RK1	200 A
			RK5	100 A
			G	60 A
			CC	30 A

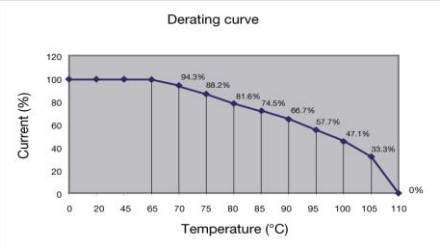
Voltage

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	630 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*

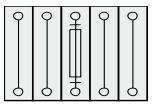
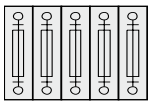
Current Derating curve for continuous service temperature



Dissipated power

Maximum dissipated power at rated current	IEC 60947-1	1.3 W
Maximum dissipated power at maximum Exe current	IEC 60079-7	1.2 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 dm³
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

ZK6 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	BAM3	1SNK900001R0000	50	13.80	
		BAZ1	1SNK900002R0000	20	5.30	
		BAZH1	1SNK900102R0000	20	23.90	
2	End Sections	EK2.5	1SNK705910R0000	20	1.8	
3	Jumper Bars	JB6-2	1SNK906302R0000	50	1.30	
		JB6-3	1SNK906303R0000	50	2.10	
		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	Cross Spacing Jumpers	JB85-3	1SNK900603R0000	10	2.80	
5	Circuit Separators	CS-R2	1SNK900106R0000	20	3.8	
		CS-R3	1SNK900107R0000	20	6.4	
6	Test Adapters	TP2	1SNK900203R0000	20	1.73	
		TP4	1SNK900205R0000	20	2.41	
7	Test Connectors	TC5-R1	1SNK900201R0000	10	5.23	
8	Spacers	ES-TC8	1SNK900104R0000	10	1.35	
9	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	
10	Tools	PS-3	1SNK900650R0000	1	380.00	
11	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	
		PROCAP5	1SNK900609R0000	20	0.69	
		UMH	1SNK900611R0000	10	0.20	
		PROCAP6	1SNK900612R0000	20	0.78	
		PROCAP8	1SNK900613R0000	20	1.00	
		SAT8	1SNK900616R0000	5	6.00	

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