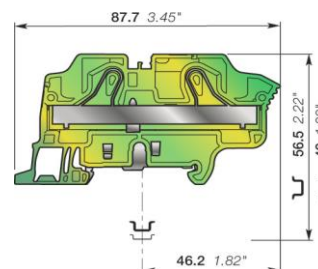


ZK16-PE PI-Spring Terminal Blocks

Ground

Improve the safety of your installation in the event of a short-circuit thanks to our screwless rail contact:

- Rail contact non operator dependent,
- Performances above the requirements of the IEC 60947-7-2 terminal block standard,
- Secured snap on or off the rail,
- Profile aligned with ZK16.



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

		16 mm²
		4 AWG
12 mm 0.472 in Spacing		

Ordering Details

Color	Type	Order Code	EAN Code	Pack ^(mg)	Weight (1 pce) g
Green-Yellow	ZK16-PE	1SNK712150R0000	3472597121500	20	47.00

Declarations and Certificates

CE	CB	RoHS	UL US USR CNR		EAC Ex	ATEX	IECEx	
						ATEX Declaration		
	Haz Loc	BV		DNV				

Declarations and Certificates

	CE	1SND225105U10*
	CB	1SND162018A02*
	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/IC/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		15 mm	0.591 in					
		Screw clamp		Screw rail contact (Maximum value)		Disconnect device		
Operating tool		Flat screwdriver						
		4 mm	0.157 in					

Material Specifications

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

Connecting capacity per clamp

		PI Spring			
1 Rigid - Solid / Stranded conductor	Norme	IEC60947-7-2	UL1059		
	Value	0.5 ... 25 mm²	20 ... 4 AWG		
1 Flexible conductor	Norme	IEC60947-7-2			
	Value	0.5 ... 16 mm²			
1 Flexible conductor with non insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.5 ... 16 mm²	20 ... 6 AWG		
1 Flexible conductor with insulated ferrule	Norme	Manufacturer data	Manufacturer data		
	Value	0.5 ... 16 mm²	20 ... 6 AWG		
Gauge		A7 & 6.3 mm Dia.			
		IEC 60947-1			
Ferrule maximum outer diameter or conductor insulation maximum outer diameter		Manufacturer data	10.5 mm	0.187 in	

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

As part of its on-going product improvement, ABB reserves the right to modify the characteristics or the products described in this document. The information given is not contractual. For further details please contact the ABB company marketing these products in your country.

Multi Connecting capacity per clamp

2 Rigid - Solid / Stranded conductors	Norme				
	Value				
2 Flexible conductors	Norme				
	Value				
2 Flexible conductors with twin ferrule	Norme				
	Value				

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	IEC60947-7-2	16 mm ²	UL1059	4 AWG
Maximum Cross section	Manufacturer data	25 mm ²	Manufacturer data	4 AWG

Electrical characteristics

Current

Rated current	IEC60947-7-2		
	Field and factory wiring Cat.2		UL 1059
	Factory wiring Cat.1		UL 1059
			CSA-C-22.2 n°158
Maximum Exe current	IEC/EN 60079-7		
Rated short-time withstand current 1 s (I _{cw})	IEC60947-7-2		1920 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		2544 A
Max. current (45° temperature increase) / Max. cross section (mm ²)	Manufacturer data		25 mm ²
Maximum short circuit current (1s)	Manufacturer data		1920 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	
Rated voltage	UL 1059	
Use Group	UL 1059	B, C, D
Rated voltage	CSA-C-22.2 n°158	
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

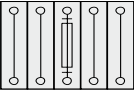
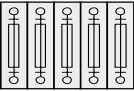
Temperature range

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

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	
Separate arrangement / Exclusive short-circuit protection		
Compound arrangement / Overload and short-circuit protection	 5 fuse blocks	
Compound arrangement / Exclusive short-circuit protection		

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 %
SO ₂		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

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Vibrations and shocks

Sinusoidal vibrations	Conditions	IEC 60068-2-6	Compliant
		Frequency range	5 ... 100 Hz
		Number of cycles	1
		Acceleration	7 m/s ²
Functional random vibrations Category 1 Class B 3 axes	Conditions	IEC 61373	Compliant
		Duration of test	20 mn
		Frequency range	5 ... 150 Hz
		Acceleration	1 m/s ²
Long life testing at increased random vibrations Category 1 Class B 3 axes	Conditions	IEC 61373	Compliant
		Duration of test	5 h
		Frequency range	5 ... 150 Hz
		Acceleration	5,7 m/s ²
Shock Category 1 Class B 3 axes	Conditions	IEC 61373	Compliant
		Duration of test	30 ms
		Acceleration	5 G

ZK16-PE 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 ^(eng) pieces	Weight g (1 pce)	
1 Terminal Block Markers	MG-CPM 13	1SNB041791R0612	1680	0.273	
	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	0.70	
	UMH	1SNK900611R0000	10	0.20	
	PROCAP6	1SNK900612R0000	20	0.80	
	PROCAP8	1SNK900613R0000	20	1.00	
2 Mounting Rails	SAT6	1SNK900615R0000	5	6.00	
	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	EK10	1SNK710910R0000	20	3.30	
4 End Stops	BAM4	1SNK900001R0000	50	14.00	
	BAZ1	1SNK900002R0000	50	5.30	
	BAZH1	1SNK900102R0000	20	24.00	
5 Circuit Separators	CS-R3	1SNK900107R0000	20	6.40	
6 Test Connectors	TC5-R1	1SNK900201R0000	10	5.20	
7 Test Adapters	TP2	1SNK900203R0000	20	1.70	
	TP4	1SNK900205R0000	20	2.40	
8 Tools	PS-3	1SNK900650R0000	1	380.00	
		1SNK900659R0000			
9 Jumper Bars	JB12-2	1SNK912302R0000	50	4.90	
	JB12-3	1SNK912303R0000	50	7.60	
	JB12-5	1SNK912305R0000	20	12.90	

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Contact us

ABB France
Electrification Products Division
PG Connection
3, rue Jean Perrin
F-69687 Chassieu cedex / France
Tel. +33 (0)4 7222 1722
Fax +33 (0)4 7222 1935

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