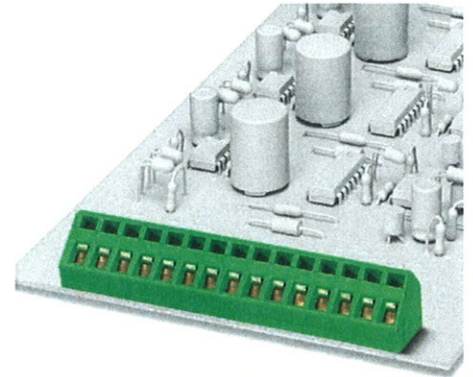


## PCB Spring-Cage Terminal block

Article description	ZFKDS 1,5C-5,0-EX * ZFKDSA 1,5C-6,0-EX *
EC-Type Examination Cert. IECEX-Certificate	PTB 06ATEX1073U IECEX PTB 06.0096U
Marking	Ex e II PTB 06ATEX1073U IECEX PTB 06.0096U
Installation instructions	See page 2
Mounting on	Printed circuit board
Stripping length	7 mm
Operating temperature range	-50 °C ... +110 °C



### Technical data according to EN 60079-7 (increased safety „e“)

Rated insulation voltage	160 V	
Rated voltage	176 V	
Nominal current	16 A	
Max. load current	16 A	

#### Connection capacity

Rated cross-section	2,5 mm <sup>2</sup>	AWG 14
Connectable conductor cross-section	0,2 - 1,5 mm <sup>2</sup> flexible 0,2 - 2,5 mm <sup>2</sup> rigid	AWG 24 - 16 flexible AWG 24 - 14 rigid

#### Insulation material

Description	PA 6.6	
Creep resistance acc. to IEC 60112 / material group	CTI 600 / I	

#### Accessories

	Description	Article no.
Recommended screwdriver	SZF 1 - 0,6 x 3,5	1204517

\* may be followed by color designation

## Important installation assembly instructions – increased safety „e“

The PCB Terminal Blocks are suitable for use in enclosures in atmospheres with flammable gases and combustible dust. For flammable gases these enclosures must satisfy the requirements according to EN 60079-0 and EN 60079-7. For combustible dust these enclosures must satisfy the requirements according to EN 50281-1-1.

When assembling with other certified series and sizes of PCB Terminal Blocks and using belonging accessories, the required creepage distances and clearances have to be observed

The maximum rated voltage is 176 V.

The rated insulation voltage and the rated voltage are determined for an insulation body of material group I (CTI 600). If PCB's with a lower CTI value are used both values according table 1 of IEC 60079-7 shall be aligned.

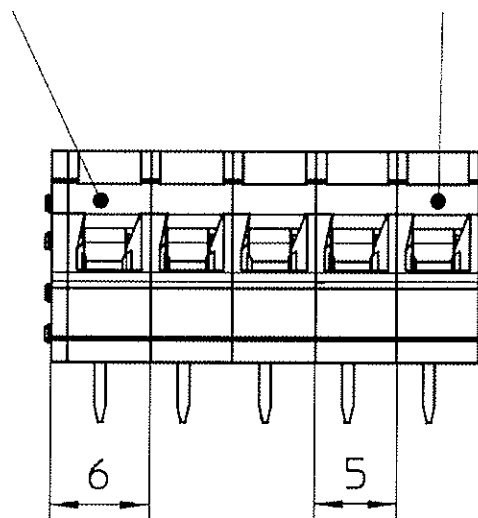
If smaller cross sections as the rated cross section are used, the belonging lower current has to be laid down in the Certificate of the complete apparatus.

The Terminal Blocks may be used, based on the self-heating when used at the above mentioned rated current and at ambient temperatures of - 50°C to +40 °C at the mounting position in electrical apparatus for temperature class T6. When the Terminal Blocks are used in electrical apparatus of temperature classes T1 up to T5, the highest temperature of the insulating material shall not exceed the maximum value of the operating temperature range.

The terminals are mounted on PCBs by two solder pins per pole. In addition, the mechanical stability of the solder connection on the printed circuit board is ensured by fixing, e.g. by bending the solder pins of the terminals aligned in a block.

On the PCB the insulation requirements of the applicable end-product standard have to be observed.

PCB-terminal block ZFKDSA 1,5C-6,0-EX    PCB-terminal block ZFKDS 1,5C-5,0-EX



## Operational instructions – Intrinsic safety “i”

EN 60079-14 Clause 12 describes modular terminal blocks as simple apparatus when used in intrinsically-safe circuits. Testing by a notified body and marking is not required. If terminal blocks be identifiable as part of an intrinsically circuit are marked by a colour, the colour used shall be **light blue**.

Testing for compliance to intrinsically safe requirements including clearance, creepage, and solid insulation distances specified in EN 60079-0 (EN 50014) and EN 60079-11 (EN 50020) have been performed for circuits up to **60 V**.

Compliance with distance requirements of EN 60079-14 Clause 12.2.3 for the connection of separated intrinsically-safe circuit accessories is met. A minimum distance of 50 mm to separate clamping units of intrinsically-safe and non intrinsically-safe circuits is required through the use of a separating plate or similar device.

## Attestation of Conformity

The above mentioned products are in line with the provisions of the below marked directive and their modification directive(s):

94/9/EC ATEX Directive

Compliance with Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2004	prEN 60079-7:200X (IEC 60079-7:2006)
current edition:*)	
IEC 60079-0:2007-10	IEC 60079-7:2006-7
EN 60079-0:2009	EN 60079-7:2007


The conformity with the provisions of the ATEX directive were certified by

Notified Body: PTB Physikalisch-Technische Bundesanstalt  
Adress: Bundesallee 100, D-38116 Braunschweig [Ident.-No.: 0102]  
Certificate: PTB 06ATEX1073 U, 2006-12-15  
(No., Date)

\*)The minor respectively formal changes in the new edition of the mentioned standards do not affect the EHSRs. Consequently the PCB terminal blocks still comply with the relevant requirements of the ATEX Directive 94/9/EC.


Blomberg, 2012-01-06


  
**Oliver Sander**  
Division – Device Connectors  
Approvals & Standardization


  
**Helmut Friedrich**  
Division – Device Connectors  
Senior Vice President

This attestation certifies the conformity with the indicated directive, it does not, however, covenant any characteristics. The instructions for safety and installation have to be observed.

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