



translation

original language: German

(1) **EC-TYPE EXAMINATION CERTIFICATE**

- (2) Components intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) EC-Type Examination Certificate number: **KEMA 00ATEX2053 U**
- (4) Components: **Printed Circuit Single Terminal Blocks Types FRONT 2,5-H/...-EX and FRONT 2,5-V/...-EX.**
- (5) Manufacturer: **Phoenix Contact GmbH & Co.**
- (6) Address: **Flachmarktstraße 8 - 28, 32825 Blomberg, Germany**
- (7) These components and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) KEMA, notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that these components have been found to comply with the Essential Health and Safety Requirements relating to the design and construction of components intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. 2003852.

- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014 : 1997 + A1 + A2 + prA3
EN 50019 : 1994 + prA1 + prA2
EN 50281-1-1 : 1998

- (10) The sign "U" placed after the certificate number indicates that this certificate describes components and must not be mistaken for a certificate intended for an equipment or protective system. This EC-Type Examination Certificate may be used as a basis for certification of an equipment or protective system.
- (11) This EC-Type Examination Certificate relates only to the design and construction of the specified components. If applicable, further requirements of this Directive apply to the manufacture and supply of these components.
- (12) The marking of the components shall include the following:

 II 2 G D EEx e II

Arnhem, 23 August 2000
by order of the Board of Directors of N.V. KEMA

C.M. Boschloo
Certification Manager

◊ This Certificate may only be reproduced in its entirety and without any change



SCHEDULE

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(14)

to EC-Type Examination Certificate KEMA 00ATEX2053 U

(15) **Description**

Printed Circuit Single Terminal Blocks Types FRONT 2,5-H/...-EX and FRONT 2,5-V/...-EX, with accessories (pitch spacer blocks type RZ 2,5-FRONT 2,5..-EX and insulating parts made of PA 6.6) for the connection of copper conductors to electronic modules in enclosures in type of explosion protection increased safety "e". The fixing on printed circuit boards is through double pin soldering.

Operating temperature range -40 °C ... +80 °C.

Electrical data

Max. rated voltage	175 V
Max. rated voltage with one pitch spacer block	275 V
Max. rated voltage with two pitch spacer blocks	420 V
Rated current (at rated conductor cross section)	21 A
Rated conductor cross section mm ² (AWG)	2,5 (14)
Max. conductor cross section mm ² (AWG)	2,5 (14)
Min. conductor cross section mm ² (AWG)	0,2 (24)

Mounting instructions

The Printed Circuit Single Terminal Blocks are suitable for use on printed circuit boards in enclosures in atmospheres with flammable gases and combustible dust. For flammable gases these enclosures must satisfy the requirements according to EN 50014 and EN 50019. For combustible dust these enclosures must satisfy the requirements according to EN 50281-1-1.

The Printed Circuit Single Terminal Blocks may be used, based on the self-heating when used at the above mentioned rated current and at ambient temperatures of -40 °C to +40 °C at the mounting position in electrical apparatus, for temperature class T6. When the Printed Circuit Single 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.

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

Routine test

Routine dielectric strength tests according to EN 50019, Clause 7.1.b in combination with Clause 6.1, are to be carried out.

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SCHEDULE

(14)

to EC-Type Examination Certificate KEMA 00ATEX2053 U

(16) **Report**

KEMA No. 2003852

(17) **Special conditions for safe use**

None

(18) **Essential Health and Safety Requirements**

Essential health and safety requirements not covered by standards listed at (9)	
Clause	Subject
1.0.6.b) + d)	Instructions

These essential health and safety requirements are examined and positively judged. The results are laid down in the report listed at (16).

(19) **Test documentation**

signed

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|--------------------------|---|------------|
| 1. Description (4 pages) |) | |
| |) | 23.05.2000 |
| 2. Drawing No. 00262089 |) | |
| 00208352 rev. 5 |) | |
| |) | 18.08.2000 |
| 00267849 |) | |
| 3. Samples | | |