

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

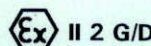
- (2) Components intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) EC-Type Examination Certificate number: **KEMA 97ATEX1798 U**
- (4) Components: **Series Terminal Blocks Type SAK 2.5, SAK 4, SAK 6N, SAK 10, SAK 16 and SAK 35.**
Protective Conductor Series Terminal Blocks Type EK 2,5N, EK 4, EK 10 and EK 35.
- (5) Manufacturer: **Weidmüller Interface GmbH & Co.**
- (6) Address: **Klingenbergstraße 16, 32758 Detmold, 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. 71798.

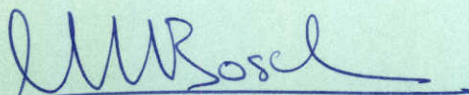
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014 : 1992 + prA1 EN 50019 : 1994 prEN 50281-1-1 : 1997

- (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, 14 August 1997
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

(13)

(14)

to EC-Type Examination Certificate KEMA 97ATEX1798 U

(15) **Description**

Series Terminal Blocks Type SAK 2.5, SAK 4, SAK 6N, SAK 10, SAK 16 and SAK 35 and Protective Conductor Series Terminal Blocks Type EK 2,5N, EK 4, EK 10 and EK 35 for the connection of copper conductors in enclosures in type of protection increased safety "e", insulating parts made of Wemid or PA 66, with accessories (cover sheet, separation plate, cross-connector, end-support and identification material), for fixing on mounting rail TS 32.

Operating temperature range -50 °C ... +80 °C for terminal blocks with insulating parts of PA 66 and -50 °C ... +100 °C for terminal blocks with insulating parts made of Wemid.

Electrical data

Series Terminal Blocks

Type	SAK 2,5	SAK 4	SAK 6N
Max. rated voltage	550 V	550 V	550 V
Max. rated voltage with cross connectors (jumping over)	550 V (175 V)	550 V (175 V)	175 V (175 V)
Rated current	21 A	28 A	36 A
Rated cross section	2,5 mm ²	4 mm ²	6 mm ²
Max. conductor cross section (rigid) mm ² (AWG)	4 (12)	6 (10)	10 (8)
Min. conductor cross section (rigid, flexible) mm ² (AWG)	0,5 (20)	0,5 (20)	0,5 (20)
Type	SAK 10	SAK 16	SAK 35*)
Max. rated voltage	550 V	750 V	550 V
Max. rated voltage with cross connectors (jumping over)	550 V (175 V)	550 V (175 V)	175 V (175 V)
Rated current	50 A	66 A	109 A*)
Rated cross section	10 mm ²	16 mm ²	35 mm ²
Max. conductor cross section (rigid) mm ² (AWG)	16 (6)	16 (6)	50 (2)
Min. conductor cross section (rigid, flexible) mm ² (AWG).....	1,5 (14)	2,5 (12)	6 (6)

*) Max. current with cross connector 99 A

Protective Conductor Series Terminal Blocks

Type	EK 2,5N	EK 4
Rated cross section	2,5 mm ²	4 mm ²
Max. conductor cross section (rigid) mm ² (AWG)	4 (12)	6 (10)
Min. conductor cross section (rigid, flexible) mm ² (AWG)	0,5 (20)	0,5 (20)
Type	EK 10	EK 35
Rated cross section	10 mm ²	35 mm ²
Max. conductor cross section (rigid) mm ² (AWG)	16 (6)	50 (2)
Min. conductor cross section (rigid, flexible) mm ² (AWG)	1,5 (14)	6 (6)

Mounting instructions

The series terminal blocks are suitable for use in enclosures in atmospheres with combustible gases and combustible dust. For combustible 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 prEN 50281-1-1.

At ambient temperatures from -50 °C up to +40 °C and based on the self-heating, if used at the above mentioned rated current, the series terminal blocks may be used in electrical apparatus, e.g. junction and connection boxes, for temperature class T6.

If mounted in apparatus of temperature classes T1 up to T5, the highest temperature of the insulating material Wemid shall not exceed the value of 100 °C and the insulating material PA 66 shall not exceed the value of 80 °C.

Regarding the use of cover sheets, separating plates and end supports the instructions of the manufacturer must be followed.

In combination with other terminal blocks series and sizes and if other accessories are used the applicable creepage distances and clearances shall be met.

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

According to EN 50019, Clause 7.1.b in combination with Clause 6.1, a dielectric strength test has to be carried out.

Test documentation

	<u>signed</u>
1. Description (10 pages)	23.07.1997
2. Drawing No. 422359 Rev. 1)	
422361 Rev. 2)	
415307 Rev. 6)	
405487 Rev.14)	
403346 Rev. 6)	
402981 Rev. 3)	
424194 Rev. 1)	
424196 Rev. 1)	
415308 Rev. 5)	
303342 Rev.23)	23.07.1997
403343 Rev. 7)	
402977 Rev. 3)	
405620 Rev. 9)	
424740)	
415309 Rev. 5)	
402978 Rev. 3)	
404005 Rev.10)	
403957 Rev. 8)	
405446 Rev. 3)	

Test documentation (continued)

Drawing No. 401215 Rev. 5)
 404038 Rev. 7)
 419991)
 304006 Rev.13)
 304015 Rev.13)
 405445)
 402980 Rev. 3)
 403990 Rev. 9)
 417367)
 426932)
 303922 Rev. 3)
 402724 Rev. 3)
 407237 Rev. 6)
 405655 Rev. 3)
 407238 Rev. 5)
 404666 Rev. 3)
 407239 Rev. 7)
 404667 Rev.11)
 404086 Rev. 5)
 404668 Rev.10)
 414626 Rev. 7)
 404520 Rev. 6)
 324135 (3 sheets))

signed

23.07.1997

3. Samples

(16) **Report**

No. 71798

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

For types SAK 2.5 and SAK 4 it shall be assured that the terminal screws of the unwired clamping positions are completely tightened.

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

The components satisfy the relevant regulations of the standards stated in (9).

translation

original language: German

AMENDMENT 1

to EC-Type Examination Certificate KEMA 97ATEX1798 U

Manufacturer: **Weidmüller Interface GmbH & Co.**Address: **Klingenbergstraße 16, 32758 Detmold, Germany****Description**

In future the Series Terminal Blocks Type SAK 2.5, SAK 4, SAK 6N, SAK 10, SAK 16 and SAK 35 may also be constructed in accordance with the documentation stated below.

The modification concerns the use of the insulating material type KrG.

The operating temperature range for the SAK ... Terminal Blocks with KrG insulating material is -50 °C ... +130 °C.

Connecting temperature range: -10 °C ... +80 °C.

All other data remain unchanged.

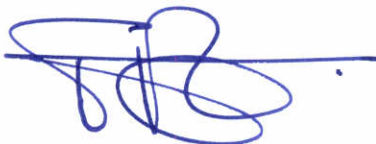
Test documentationsigned

1. Drawing Nos. 404617, rev. 16)	
422411, rev. 7)	
404501, rev. 4)	04.07.2001
404473, rev. 9)	
402631, rev. 8)	
403421, rev. 8)	

2. Samples

Arnhem, 8. August 2001

by order of the Board of Directors of N.V. KEMA

T. Pijpker
Certification ManagerCode:  II 2 G EEx e II[2011675]
Page 1/1

translation

AMENDMENT 2

original language: German

to EC-Type Examination Certificate KEMA 97ATEX1798 U

Manufacturer: **Weidmüller Interface GmbH & Co.**Address: **Klingenbergstraße 16, 32758 Detmold, Germany****Description**

The Terminal blocks SAK 2.5, SAK 4, SAK 6N, SAK10, SAK16 and SAK 35 may also be constructed with the insulating material type KrS.

The operating temperature range for the SAK... Terminal Blocks with KrS insulating material is -50 °C ... +130 °C.

Connecting temperature range: -10 °C ... +80 °C

All other data remain unchanged.

Test documentation

		<u>dated</u>
1. Drawing No.	404617, rev. 16	29.01.2002
	404447, rev. 9	
	404476, rev. 8	
	404473, rev. 9	
	402631, rev. 8	
	403171, rev. 9	

Arnhem, 22 March 2002
KEMA Quality B.V.



T. Pijpker
Certification Manager

[2018279]

Page 1/1

to EC-Type Examination Certificate KEMA 97ATEX1798 U

Manufacturer: **Weidmüller Interface GmbH & Co**

Address: **Klingenbergstrasse 16, 32758 Detmold, Germany**

Description

The routine dielectric strength tests according to EN 50019, clause 7.1.b may also be conducted using the method as laid down in document no. A_10_07.

All electrical data and mounting instructions remain unchanged.

Report

KEMA No. 2020770.

Arnhem, 19 September 2002
KEMA Quality B.V.



L.M.J. Vries
Certification Manager

to EC-Type Examination Certificate KEMA 97ATEX1798 U

Manufacturer: **Weidmüller Interface GmbH & Co**

Address: **Klingenbergstrasse 16, 32758 Detmold, Germany**

Description

The Terminal Blocks series SAK ... is extended with types SAK 2,5/35, SAK 4/35, SAK 6/35, SAK 10/35, SAK 16/35 and SAK 35/35, for fixing on mounting rails TS 35.

Electrical data

Type	<u>SAK 2,5/35</u>	<u>SAK 4/35</u>	<u>SAK 6/35</u>
Max. rated voltage with			
- fixing on mounting rail TS 35	550 V	550 V	550 V
- with bridging	550 V	550 V	550 V
- cross connector (TS 35)	175 V	175 V	175 V
Rated current	21 A	28 A	36 A
Rated cross section mm ²	2,5	4	6
max. cross section (single-core) mm ² (AWG)	4 (12)	6 (10)	10 (8)
min. cross section (single-core, multi-strand) mm ² (AWG)	0,5 (20)	0,5 (20)	0,5 (20)
Type	<u>SAK 10/35</u>	<u>SAK 16/35</u>	<u>SAK 35/35</u>
Max. rated voltage with			
- fixing on mounting rail TS 35	550 V	750 V	550 V
- with bridging	550 V	550 V	550 V
- cross connector (TS 35)	175 V	175 V	175 V
Rated current	50 A	66 A	109 A*)
Rated cross section mm ²	10	16	35
max. cross section (single-core) mm ² (AWG)	16 (6)	16 (6)	50 (2)
min. cross section (single-core, multi-strand) mm ² (AWG)	1,5 (16)	2,5 (12)	6 (10)

*) maximum current with bridging 99 A

Report

KEMA No. 2078256.

All other data remain unchanged.

to EC-Type Examination Certificate KEMA 97ATEX1798 U

Manufacturer: **Weidmüller Interface GmbH & Co.**

Address: **Klingenbergstraße 16, 32758 Detmold, Germany**

Description

The Terminal Blocks series SAK ... is extended with types SAK 2,5 EN, SAK 4 EN, SAK 6 EN, SAK 10 EN, SAK 16 EN and SAK 35 EN, for fixing on mounting rails TS 32 or TS 35.

Electrical data

Type	<u>SAK 2,5 EN</u>	<u>SAK 4 EN</u>	<u>SAK 6 EN</u>
Max. rated voltage with			
- fixing on mounting rail TS 35	750 V	750 V	750 V
- cross connector (TS 35)	420 V	750 V	750 V
- fixing on mounting rail TS 32	420 V	420 V	420 V
- cross connector (TS 32)	420 V	420 V	420 V

Rated current	21 A	28 A	36 A
Rated cross section mm ²	2,5	4	6
max. cross section (single-core) mm ² (AWG)	6 (10)	6 (10)	10 (8)
min. cross section (single-core, multi-strand) mm ² (AWG)	0,5 (20)	0,5 (20)	0,5 (20)

Type	<u>SAK 10 EN</u>	<u>SAK 16 EN</u>	<u>SAK 35 EN</u>
Max. rated voltage with			
- fixing on mounting rail TS 35	750 V	750 V	750 V
- cross connector (TS 35)	750 V	750 V	750 V
- fixing on mounting rail TS 32	420 V	420 V	420 V
- cross connector (TS 32)	420 V	420 V	420 V

Rated current	50 A	66 A	109 A
Rated cross section mm ²	10	16	35
max. cross section (single-core) mm ² (AWG)	16 (6)	16 (6)	50 (2)
min. cross section (single-core, multi-strand) mm ² (AWG)	1,5 (16)	4 (12)	10 (8)

All other data remain unchanged.

translation

AMENDMENT 4

original language: German

to EC-Type Examination Certificate KEMA 97ATEX1798 U

Test documentation

		<u>dated</u>
1. Description		22.01.2004/30.03.2004
2. Drawing No.	333731, Rev. 2)	
	333732)	
	409503)	
	219990)	22.01.2004
	319991, Rev. 15)	
	217363, Rev. 7)	

Arnhem, 30 March 2004
KEMA Quality B.V.



T. Pijpker
Certification Manager

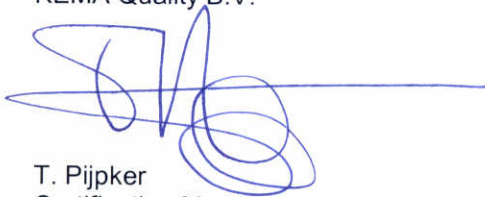
to EC-Type Examination Certificate KEMA 97ATEX1798 U**Test documentation**dated

1. Description -

2. Drawing No. 3 22365)
3 24199)
3 04801)
2 19990)
3 19991)
2 17363)

06.10.2004

Arnhem, 14 February 2005
KEMA Quality B.V.



T. Pijpker
Certification Manager

to EC-Type Examination Certificate KEMA 97ATEX1798 U

Manufacturer: **Weidmüller Interface GmbH & Co**

Address: **Klingenbergstrasse 16, 32758 Detmold, Germany**

Description

Compliance with the Essential Health and Safety Requirements has now been assured by compliance with EN 60079-0 : 2004 and EN 60079-7 : 2003.

The marking shall include the following:



Electrical data

Changed Data:

Feedthrough Terminal Block

<u>Type</u>	<u>SAK 16</u>
Max. rated Voltage	690 V

<u>Type</u>	<u>SAK 2,5 EN</u>	<u>SAK 4 EN</u>	<u>SAK 6 EN</u>
Max. rated Voltage			
- with fixing on mounting rail TS 35	690 V	690 V	690 V
- with cross connector jumping over (TS 35)	440V	690 V	690 V
- with fixing on mounting rail TS 32	440 V	440 V	440 V
- with cross connector jumping over (TS 32)	440 V	440 V	440 V

<u>Type</u>	<u>SAK 10 EN</u>	<u>SAK 16 EN</u>	<u>SAK 35 EN</u>
Max. rated Voltage			
- with fixing on mounting rail TS 35	690 V	690 V	690 V
- with cross connector jumping over (TS 35)	690V	690 V	690 V
- with fixing on mounting rail TS 32	440 V	440 V	440 V
- with cross connector jumping over (TS 32)	440 V	440 V	440 V

<u>Type</u>	<u>SAK 16/35</u>
Max. rated Voltage	690 V

All other data remain unchanged.

Installation instructions

The Feed Through Terminal Blocks and Protective Conductor Terminal Blocks are suitable for use in enclosures in atmospheres with flammable gases or combustible dust.

For flammable gases these enclosures must satisfy the requirements according to EN 50014 / EN 60079-0 and EN 50019 / EN 60079-7.

For combustible dust these enclosures must satisfy the requirements according to EN 50281-1-1 / EN 61241-0 and EN 61241-1.

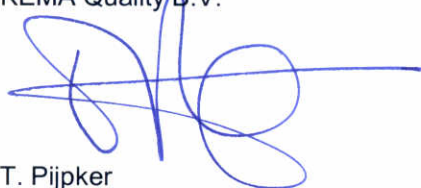
Routine tests

The routine dielectric strength tests shall be performed according to EN 60079-7, clause 7.2 or according to the method as laid down in document no. A_10_07.

to EC-Type Examination Certificate KEMA 97ATEX1798 U**Test documentation**

		<u>dated</u>
Drawing no.	3 04667, issue 16	17.10.2005
	3 05655, issue 9	17.10.2005
	4 04668, issue 15	17.10.2005
	3 04666, issue 8	17.10.2005
	3 03957, issue 13	17.10.2005
	3 24063, issue 13	17.10.2005
	2 19990, issue 18	17.10.2005
	3 19991, issue 17	17.10.2005
	2 02628, issue 21	17.10.2005
	3 22360, issue 9	17.10.2005
	3 04619, issue 14	17.10.2005
	3 30035, issue 6	17.10.2005
	2 17363, issue 10	17.10.2005
	3 17367, issue 20	17.10.2005
	2 24196, issue 5	17.10.2005
	2 24724, issue 7	17.10.2005
	3 33732, issue 6	17.10.2005
	2 09503, issue 19	17.10.2005
	2 24740, issue 12	17.10.2005

Arnhem, 13 December 2005
KEMA Quality B.V.

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke extending to the right.

T. Pijpker
Certification Manager