



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BVS 04.0009**

Issue No.: **0**

Status: **Current**

Date of Issue: **2004-09-01**

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Applicant: **GeCma Components GmbH**
Heisenbergstr. 26 - 40
50169 Kerpen
Germany

Electrical Apparatus: **Card Reader type Challenger CRi**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ib IIC T4**

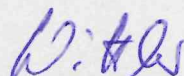
Approved for issue on behalf of the IECEx
Certification Body:

Dr. Michael Wittler

Position:

Head of Testing Laboratory

Signature:
(for printed version)


01.09.04

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**EXAM BBG Prüf- und Zertifizier
GmbH**

Fachstelle für Sicherheit elektrischer Betriebsmittel – BVS
Dinnendahlstrasse 9
44809 Bochum
Germany

 **EXAM**
BBG Prüf- und Zertifizier GmbH



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Manufacturer: **GeCma Components GmbH**
Heisenbergstr. 26 - 40
50169 Kerpen
Germany

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacture's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

IECEx ATR:
DE/BVS/04/2141

File Reference:
A 20040298



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

The card reader is used in hazardous areas for reading data of chip cards and for transformation of these data. The electrical components are completely encapsulated inside a metal enclosure with a plastic front (surface resistance $\leq 10^9 \Omega$). The electrical connection is by means of terminals at the rear side of the enclosure.

Parameters

1	Supply circuit (terminals K1-1 and K1-2)				
	Voltage	U _i	DC	12.5	V
	effective internal capacitance	C _i		negligible	
	effective internal inductance	L _i		negligible	
2	Data circuit RxD (terminals K1-5 and K1-4)				
	Voltage	U _o	DC	12.5	V
	effective internal capacitance	C _i		negligible	
	effective internal inductance	L _i		negligible	
3	Data circuit TxD (terminals K1-7 and K1-6)				
	Voltage	U _o	DC	12.5	V
	effective internal capacitance	C _i		negligible	
	effective internal inductance	L _i		negligible	
4	Ambient temperature range	T _a		-10 up to +60	°C

CONDITIONS OF CERTIFICATION: NO

Annexe: