(1) # EC-TYPE-EXAMINATION CERTIFICATE

(2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 94/9/EC**

(3) EC-Type-Examination Certificate Number

TÜV 11 ATEX 7018 X

(4) Equipment: **Intrinsically Safe Power Supply** **Type:** **CPS-1***

(5) Manufacturer: **GECMA Components Electronic GmbH**
(6) Address: **Heisenbergstraße 26-40; 50169 Kerpen**

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV Rheinland ExNB for ex-protected products of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex018.00/11

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-0: 2009 **EN 60079-5: 2007** **EN 60079-7: 2007** **EN 60079-11: 2007**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type-Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.

(12) The marking of the equipment shall include the following:

II 2 G **Ex e q [ib] IIC T4 Gb**

TÜV Rheinland Certification Body for Ex-Products

Cologne, 2012-04-13

Dipl.-Ing. Heinz Farke

This EC-type-Examination Certificate without signature and stamp shall not be valid.
This EC-type-examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the TÜV Rheinland Industrie Service GmbH TÜV Rheinland Group Am Grauen Stein 51105 Köln
Tel. +49 (0) 221 806-0 Fax. + 49 (0) 221 806 114

(13) Annex

(14) # EC - Type Examination Certificate
TÜV 11 ATEX 7018 X

(15) Description of equipment

CPS-1* is the power supply used in the GeCma Challenger Remote Terminal Interface systems.
The units will be mounted in the stainless steel enclosure of the Challenger systems and shall offer power outputs to supply the sub modules.
The unit has eight galvanically isolated supplies for nominal 12V, with cable loom and appropriate connectors, which can be plugged directly to the existing Challenger installation. The outputs are intrinsically safe.
The Challenger systems are designed for installation in hazardous area.

CPS-1 DC
The unit shall have a nominal 24V DC voltage input. The isolation between the power input and power outputs as well as between the individual output channels shall be conform to the applicable explosion protection standards

CPS-1 AC
This product is similar to CPS-1 DC, except for an AC/DC power module at the input. The input has a universal wide voltage input range.

Technical Data

Electrical Parameters:

	Input Circuit (terminal 1 and 2)	**Output Circuits** (terminals PS1-PS8) each channel is intrinsically safe and galvanically isolated from each other (Terminals PS1: 1+2, PS2: 3+4; PS3:5+6, PS4:7+8, PS5: 9+10; PS6:11+12; PS7: 13+14; PS8:15+16)
CPS-1 AC	Nominal Voltage: 90-253V AC Max. Voltage: Um= 253V AC	Uo = 12,3 V DC Io = 543 mA Po = 6,68 W Characteristics: Rectangular Co = 1 µF Lo = 10 µH

CPS-1 DC	Nominal Voltage: 20-30V DC Max. Voltage: Um= 253V DC	Uo = 12,3 V DC Io = 543 mA Po = 6,68 W Characteristics: Rectangular Co = 1 µF Lo = 10 µH

Ambient Temperature: -10 °C up to +50 °C

(16) Test-Report No. 557/Ex018.00/11

(17) Special Conditions for safe use

The CPS-1* has to be mounted inside an enclosure, that fulfils IP54 according to EN 60079-0.

Installation should be done according to EN 60079-14 or national erection code as applicable.

(18) Basic Safety and Health Requirements Covered by afore mentioned standard

TÜV Rheinland Ex Notified Body

Cologne, 2012-04-13

Dipl.-Ing. Heinz Farke

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