

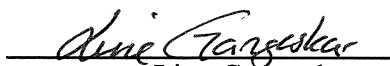
DET NORSKE VERITAS

EC-TYPE EXAMINATION CERTIFICATE

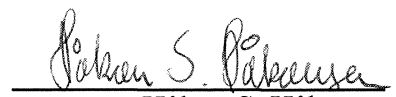
- [2] **EQUIPMENT OR PROTECTED SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC**
- [3] EC-Type Examination Certificate Number: **DNV-2005-OSL-ATEX- 0334X**
- [4] Equipment or Protective System: **5 V power supply module PSU1003 and PSD1004**
- [5] Applicant – Manufacturer or Authorized representative: **G. M. International S.r.l**
- [6] Address: **Via San Fiorano, 70
20058 Villasanta (MI), Italy**
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV, notified body number 0575 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential report no. : **2005-3308**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
**EN 50014: 1997 + A1: 1999 + A2: 1999, EN 50020: 2002 and EN 50284: 1999
IEC 60079-0: 2004 and IEC 60079-11: 1999**
- [10] If the sign “X” is placed after the certificate number, it indicates that the equipment or protective system 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 construction of the specified equipment or protected system. If applicable, further requirements of this Directive apply to the manufacturer and supply of this equipment or protective system.
- [12] The marking of the equipment or protective system shall include the following :

 II 1 G EEx ia IIB T4 -20°C ≤ Tamb ≤ +60°C

Høvik, 2005-10-04
for Det Norske Veritas Certification AS

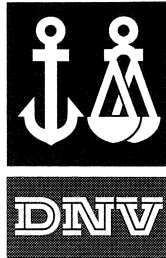

Line Gangeskar
Head of Section




Håkon S. Håkonsen
Senior Engineer, ATEX

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE No.: DNV-2005-OSL-ATEX-0334X

[15] **Description of Equipment or Protective System**

Power supply module type PSU1003 is to be incorporated into an intrinsically safe apparatus. The module is mounted on a printed circuit board and potted with a silicone compound into a plastic enclosure. It has two input supply terminals, two output terminals and two voltage sensing terminals.

Power supply module type PSD1004 is packaged in a plastic enclosure suitable for mounting on a T35 DIN rail. The main PCB contains a PSU1003 supply module wired to the terminal blocks.

They are design to convert the input power coming from an intrinsically safe supply into a regulated and isolated supply to power intrinsically safe field devices. The modules must be powered from an IS power/barrier with data corresponding to the data listed below.

Type Identification

PSU1003
PSD1004

Electrical Data

Input safety parameters	Output safety parameters
U _i = 24,2 V	U _o = 6,51 V
I _i = 363 mA	P _o = 1760 mW
P _i = 1760 mW	C _o = 227 μF
C _i = 330 nF	
L _i = 0 μH	

Degrees of protection (IP Code)

PSU1003: None
PSD1004: IP20

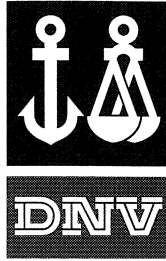
[16] Report No.: 2005-3308
Project No.: 42210275

Descriptive Documents

Number	Title	Rev.	Date
CRR026	Certification report, PSU1003, PSD1004	1	2005/09/26
SCD069	Electrical schematic PSU1003	1	2005/03/17
SCD070	Electrical schematic PSD1004	0	2005/04/07
PCF077	Printed circuit board PSU1003, 8 pages	1	2005/03/17
PCF078	Printed circuit board PSD1004, 5 pages	0	2005/04/07



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[17] Special Conditions for Safe Use

The PSU1003 must be installed on a user defined printed circuit board which fulfill the requirements for separation distances described in EN50020: 2002, and be placed in an enclosure with at least IP20.

For outdoor use, both the PSU1003 and PSD1004 must be placed in an enclosure with at least IP54.

[18] Essential Health and Safety Requirements

See part 9 of this certificate

END OF CERTIFICATE



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