DET NORSKE VERITAS

EC-TYPE EXAMINATION CERTIFICATE

[2] **EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC**

[3] EC-Type Examination Certificate Number: **DNV 11 ATEX 97514** Rev. 3

[4] Equipment or Protective System: **Valve Leak Monitor**

[5] Applicant – Manufacturer or Authorized representative: **MISTRAS Group Inc.**

[6] Address: **195 Clarksville Road, Princeton Junction NJ, USA- 08550**

[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 reports listed in section 14.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN 60079-0: 2006, EN 60079-0: 2009 and EN 60079-11: 2007**

[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 2(1) G Ex ia IIC T3 Gb -20 °C ≤ Ta ≤ 55 °C

Høvik, 2012-01-30
for Det Norske Veritas AS

Marianne Spæren
Certification Manager

NORSK AKKREDITERING
PROD 019

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The digitally signed and electronically distributed document is the original and valid certificate. Ref.: **www.dnv.com/digitalsignatures**

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 300.000. 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 11 ATEX 97514 Rev. 3

Certificate History

Revision	Description	Report no.	Issue date
-	Original certificate	2011-3247	2011-12-02
1	Updated descriptive documents list	2011-3247	2011-12-12
2	Minor change, R1 on pcb changed to 0.1 ohm	2011-3247	2012-01-19
3	Corrected error in descriptive documents list	2011-3247	2012-01-30

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

The Model VPACII Portable Leak Detector is designed to monitor leak associated acoustic emission signal level by measuring the RMS (dB) value of those signals. The circuitry of the detector is powered by four AA size Ni -Cad batteries that are encapsulated and contained within the housing. The unit consists of one printed circuit board. The pcb interfaces with six membrane keys along with a liquid crystal display for facilitate data entry and acquisition. The VPACII may be used with sensors D9203 IS, D9241 IS or VS9203-IS.

Type Identification

VPAC II

Electrical Data

U=4.8V, I=15 mA

[16] **Project No.:** PRJC-300782-2011-PRC-NOR

Descriptive Documents

Number	Title	Rev.	Date
5133-1503-IS	Label, Rear, Intrinsically safe, Vpac-II	2	2011-11-30
5133-2010	Artwork (9 sheets)	2	2011-07-26
5133-2011	VPAC II, Acoustic leak detector board	2	2011-07-26
5133-2014-IS	Custom BOM Report (4 sheets)	2B	2011-12-28
5133-2014-IS	VPAC II; Acoustic leak detector board (2 sheets)	2B	2011-12-28
5133-3010	VPAC II Schematic (6 sheets)	2B	2011-12-28
5133-5015-IS	ASSY,TOP,ACOUSTIC LEAK DETECTOR,IS (bom) (2 sheets)	0	2011-08-03
5133-5015-IS	Custom BOM Report (2 sheets)	0	2011-08-03
5133-3020	Battery Pack Protection Board (schematics)	3	2011-07-20
5133-5095	ASSEMBLY, BATTERY PACK, VPAC II (4 sheets)	5	2011-11-29

[17] **Special Conditions for Safe Use**

None

[18] **Essential Health and Safety Requirements**

See part 9 of this certificate

END OF CERTIFICATE

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 300.000. 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.