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-2004-OSL-ATEX-0004**

[4] Equipment or Protective System: **Digital wireless communication system and camera**

[5] Applicant – Manufacturer or Authorized representative: **VisiWear AS**

[6] Address: **Kong Oscars gate 2b, 5017 Bergen, Norway**

[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.: **2003-3389**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 + A1: 1999 + A2: 1999, EN50018:2000, EN 50028:1987 and EN50020:2002

[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 G EEx m[ib] IIC T6 / EEx d IIC T6

Høvik, 2005-02-01

This certificate replaces the version issued 2004-03-01

for Det Norske Veritas Certification AS

Line Gangeskar
Head of Section

Håkon S. Håkonsen
Senior Engineer

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

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE No.:** DNV-2004-OSL-ATEX-0004

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

The VisiWear EX-3100 is a wireless digital communication system designed for communication and transmittal of audio, video and data signals between the operator in the field and a base station located outside hazardous area. The CPU unit contains a video encoder and/or a wireless communication module and is completely enclosed in a casting compound. The unit is powered by internal batteries. The CPU unit comes in two versions, 1 and 2. The CPU unit has some parts of plastic materials, which may be subject to static charge, and must be used in a protective antistatic case as described in the manufacturer's user manual. In addition the system includes an Ex-d camera type TNXAD 59 for connection to the CPU unit, **or separate usage**. The Ex-code for the camera is EEx d IIC T6.

The CPU has intrinsically safe outputs for additional equipment such as: Display and headset. The following output data apply:

Output:	U_o	I_o	P_o	L_o	C_o
Display Power	5,49 V	175 mA	0,24 W	6 mH	58 µF
Display Video	4,17 V	44 mA	0,046 W	3,5 mH	100 µF
Microphone	4,17 V	44 mA	0,046 W	3,5 mH	100 µF
Speaker	6,69 V	181 mA	0,30 W	3,5 mH	19 µF

[16] **Report No.:** 2003-3389
Project No.: 42035201

Descriptive Documents

Number	Title	Rev.	Date
EX 3100-01	Documentation overview	3	2004-02-25
EX 3100-02	EX-m housing version 1	2	2004-02-25
EX 3100-03	EX-m housing version 2	2	2004-02-25
EX 3100-04	Audio/display barrier schematic/layout	2	2004-02-20
EX 3100-05	EX Labels	2	2004-02-25
EX 3100-06	Blocking circuit	1	2004-02-25
XCD-48-2	EX-d camera housing	C	2004-02-25

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

[18] **Essential Health and Safety Requirements**
See part 9 of this certificate

END OF CERTIFICATE

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