



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: Presafe 15 ATEX 6475 Issue 0
- [4] Equipment or Protective System: VSP Amplified Batteryless Telephone system
- [5] Applicant – Manufacturer or Authorized representative: Zenitel Norway AS
- [6] Address: Bromsveien 17, PO.BOX 1068
N-3194 Horten
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] Presafe, notified body number 2460 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: 2012 and EN 60079-11: 2012
- [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 [Ex ia] IIC -20°C ≤ Ta ≤ +60°C (for VSP-5004/5008/5012)
 II 1 G Ex ia IIC T4 -20°C ≤ Ta ≤ +60°C (for VSP-512)

Bjørn Spongsveen
For DNV Nemko Presafe
Information on electronic signature www.presafe.com



Date of issue: 2015-07-10

Reference No: Nemko 05ATEX1059
This certificate replaces
previously certificate
issued by Nemko



EC-Type Examination Certificate

[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE No.: Presafe 15 ATEX 6475 Issue 0

Certificate History

Issue	Description	Report no.	Issue date
0	Original issue, this certificate replaces Nemko 05ATEX1059	D0001630	2015-07-10

[15] Description of Equipment or Protective System

This certificate covers Zenitel VSP Amplified Batteryless Telephone System. The system consist of one buffer unit, VSP-5004, VSP-5008 or VSP-5012, certified as associated apparatus with intrinsically safe outputs, located in safe area and operating units, VSP-512, located in hazardous area. The handset has also been assessed in this report, to be connected to the operating unit, VSP-512, in hazardous area.

Type Designations

Buffer units: VSP-5004, VSP-5008 or VSP-5012

Operating unit incl. handset: VSP-512

Electrical Data

The Buffer units, VSP-5004, VSP-5008 or VSP-5012, are associated apparatus supplied with $U_n = 24V$ d.c.

Maximum r.m.s. a.c or d.c voltage that can be applied to the non-intrinsically safe connection facilities of associated apparatus, Buffer Unit, without invalidating the type of protection, $U_m = 250V$ a.c. 125V d.c.

Refer to *Wiring diagram* no.: VSP-5004_wd, VSP-5008_wd and VSP-5012_wd and *System description* no.: VSP-EX.sd for detailed drawing.

Only the cable parameters listed below need to be taken into account for the installation of the system unless other certified intrinsically apparatus is connected on the same cable as the handset. For example headset.

The Buffer units contain intrinsically safe barriers that are connected to the Operating units in parallel located in hazardous area, below safety parameters apply for the terminals.

Terminals X10: 5 to 18 on VSP-5012, 5 to 14 on VSP-5008 and 5 to 9 on VSP-5004, for connection to X1: 5 to 18 on VSP-512

Maximum output voltage.	$U_{o=}$	9.6V
Maximum output current.	$I_{o=}$	22mA
Maximum output power.	$P_{o=}$	52mW

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Maximum external capacitance	$C_o=$	3.6 μ F
Maximum external inductance	$L_o=$	70mH
Maximum inductance to resistance ratio	$L/R=$	674 μ H/ohm

Terminals X10: 1-2 and 3-4 on VSP-50XX, for connection to X1: 1-2 and 3-4 on VSP-512 which is connected to the handset. An Ex certified external headset can also be connected to these terminals.

Maximum output voltage.	$U_o=$	2.2V
Maximum output current.	$I_o=$	200mA
Maximum output power.	$P_o=$	0.35W
Maximum external capacitance	$C_o=$	100 μ F
Maximum external inductance	$L_o=$	0.91mH
Maximum inductance to resistance ratio	$L/R=$	71 μ H/ohm

Cable between VSP-5004/5008/5012 and VSP-512:

Requirement for the cable parameters which shall be used between VSP-5004/5008/5012 (safe area) and VSP-512 (hazardous area) are as follows: The inductance to resistance ratio 674 μ H/ohm and capacitance $C=3.6\mu$ F on Terminal 5-18 and $L/R=71\mu$ H/ohm and capacitance $C=100\mu$ F on Terminal 1-4. These cable parameters must not be exceeded. Refer to installation instructions for more information about the cable that is used in the communication system.

[16] Project No.: D0001630

Descriptive Documents

Number	Title	Rev.	Date
VSP-Ex_sd	System description	05	2015-06-19
8125180	Partlist for: PCB VSP-5012	03	2008-09-26
PCB VSP-5012_Rev3_Page_1	PCB VSP-5012	3	2005-09-26
8125182	Partlist for: PCB-2 VSP 5012	1	2005-03-03
PCB2 VSP-5112_rev_1	PCB2 VSP-5012	1	2005-02-17
Product Label VSP-Ex system Rev. 05	Product Label Buffer Units: VSP-5004, 5008, 5012 Telephone VSP-512	5	2015-07-07
VSP 5004 Part list Rev_04	Partlist for VSP-5004	4	2015-03-06

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VSP 5008 Part list Rev_04	Partlist for VSP-5008	4	2015-03-06
VSP 5012 Part list Rev_05	Partlist for VSP-5012	5	2015-03-06
VSP-512 Label_dd	VSP Ex Productlabel VSP-512 Ver 2.0	01	2015-07-06
VSP-512 Part list Rev.03	Partlist for VSP-512 Ex teleph. 12 lines	3	2015-06-11
VSP-512_wd Rev.02	VSP-512 Wiring diagram	02	2005-03-03
VSP-5004_wd Rev.01	VSP-5004 Wiring diagram	01	2015-01-29
VSP-5008_wd Rev.01	VSP-5008 Wiring diagram	01	2015-01-22
VSP-5012_wd Rev.03	VSP-5008 Wiring diagram	03	2015-03-18
VSP-5012_lo Rev.05	VSP-5004, 5008, 5012 Layout	05	2015-01-22
VSP-EX SYSTEM CRITICAL COMPONENTS	VSP-EX SYSTEM CRITICAL COMPONENTS	1.01	2015-07-08
GO0575-IGW05	Handset documentation	01	2015-07-09

Ex components used:

Ex component	Certificate	CENELEC Standard	IECEx Standard
Weidmüller Interface GmbH & Co. KG, Empty enclosure	IBExU 13 ATEX 1004X IECEX IBE 13.0003U	EN 60079-0:2012, EN 60079-7:2007, EN 60079-31:2008	IEC 60079-0:2011, IEC 60079-7:2006, IEC 60079-31:2008
Phoenix contact GmbH&Co. KG, Terminal block MUT 2,5 BU	SEV 13ATEX0178U IECEX SEV 13.0012U	EN 60079-0:2012, EN 60079-7:2007	IEC 60079-0:2011, IEC 60079-7:2006
Measurement Technology Limited, MTL7760 ac Series shunt Zener diode barriers	BAS 01ATEX7217 IECEX BAS 04.0025	EN 60079-0:2012, EN 60079-11:2012	IEC 60079-0:2011, IEC 60079-11:2011
Hans Turck GmbH & Co. KG, Isolating Switch Amplifier type IM1-22Ex-R 2ch	TÜV 04ATEX2553 IECEX TUN 06.0006X	EN 60079-0:2009, EN 60079-11:2007	IEC 60079-0:2007, IEC 60079-11:2006

[17] Special Conditions for Safe Use

N / A

[18] Essential Health and Safety Requirements

See part 9 of this certificate

END OF CERTIFICATE