

[1]

# EU-TYPE EXAMINATION CERTIFICATE

[2] Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

[3] EU-Type Examination Certificate Number: **Presafe 15 ATEX 6475** **Issue 1**

[4] Product: **VSP Amplified Batteryless Telephone system**

[5] Manufacturer: **Zenitel Norway AS**

[6] Address: **Bromsveien 17, PO.BOX 1068  
N-3194 Horten  
Norway**

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] DNV Product Assurance AS, notified body number 2460, in accordance with Article 17 and Article 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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 item 16.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN IEC 60079-0:2018 and EN 60079-11:2012**

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:



**II (1) G [Ex ia Ga] IIC -20°C ≤ Ta ≤ +60°C (for VSP-5004/5008/5012)**  
**II 1 G Ex ia IIC T4 Ga -20°C ≤ Ta ≤ +60°C (for VSP-512)**



Date of issue:  
2024-02-08



**Bjørn Spongsveen**  
For DNV Product Assurance AS  
The Certificate has been digitally signed.  
See [www.dnv.com/digitalsignatures](http://www.dnv.com/digitalsignatures) for info

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 15 ATEX 6475 Issue 1

[15] **Description of Product**

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 designation**

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            |
| Maximum external capacitance           | $C_o=$ | 3.6 $\mu$ F     |
| Maximum external inductance            | $L_o=$ | 70mH            |
| Maximum inductance to resistance ratio | $L/R=$ | 674 $\mu$ 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 $\mu$ F    |
| Maximum external inductance            | $L_o=$ | 0.91mH         |
| Maximum inductance to resistance ratio | $L/R=$ | 71 $\mu$ 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 $\mu$ 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.

**Ambient temperature:**

-20°C to +60°C

[16] **Report No.:** 553699

[17] **Specific Conditions of Use**

N/A

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

Met by compliance with the requirements mentioned in item 9.

## [19] Drawings and documents

| Number                            | Title  | Rev. | Date       |
|-----------------------------------|--|------|------------|
| VSP-Ex_sd                         | System description   | 06   | 2023-11-06 |
| 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.pl           | VSP EX system Product Label Buffer<br>Units: VSP-5004, 5008, 5012<br>Telephones: VSP-512 | 6    | 2024-01-19 |
| VSP 5004 Part list Rev_04         | Partlist for VSP-5004  | 4    | 2015-03-06 |
| 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  | 02   | 2024-01-19 |
| 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<br>IECEx IBE 13.0003U | EN 60079-0:2012,<br>EN 60079-7:2007,<br>EN 60079-31:2008 | IEC 60079-0:2011,<br>IEC 60079-7:2006,<br>IEC 60079-31:2008 |
| Phoenix contact GmbH&Co. KG, Terminal block MUT 2,5 BU                       | SEV 13ATEX0178U<br>IECEx SEV 13.0012U     | EN 60079-0:2012,<br>EN 60079-7:2007                      | IEC 60079-0:2011,<br>IEC 60079-7:2006                       |
| Measurement Technology Limited, MTL7760 ac Series shunt Zener diode barriers | BAS 01ATEX7217<br>IECEx BAS 04.0025       | EN 60079-0:2012,<br>EN 60079-11:2012                     | IEC 60079-0:2011,<br>IEC 60079-11:2011                      |
| Hans Turck GmbH & Co. KG, Isolating Switch Amplifier type IM1-22Ex-R 2ch     | TÜV 04ATEX2553<br>IECEx TUN 06.0006X      | EN 60079-0:2009,<br>EN 60079-11:2007                     | IEC 60079-0:2007,<br>IEC 60079-11:2006                      |

## [20] Certificate History

| Issue | Description   | Issue date | Report no. |
|-------|---|------------|------------|
| 0     | Original issue, this certificate replaces Nemko 05ATEX1059                              | 2015-07-10 | D0001630   |
| 1     | Update of marking label and upgrade to latest edition of standard EN IEC 60079-0: 2018. | 2024-02-08 | 553699     |

END OF CERTIFICATE

