

# EU-Type Examination Certificate

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] EU-Type Examination Certificate Number: Presafe 18 ATEX 13478X Issue 0
- [4] Product: Turn of valve and pressure safety valve POP detectors with BLE module.
- [5] Manufacturer: Trisense AS
- [6] Address: Johan Berentsensvei 41  
5160 Laksevåg  
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 GL Presafe AS, notified body number 2460, in accordance with Article 17 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 section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 60079-0:2012/A11:2013 and EN 60079-11: 2012
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate .
- [11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. 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 IIB T4 Ga

Date of issue:  
2018-12-12



Asle Kaastad  
For DNV GL Presafe AS  
The Certificate has been digitally signed.  
See [www.presafe.com/digital\\_signatures](http://www.presafe.com/digital_signatures) for more info



*This certificate may only be reproduced in its entirety and without any change, schedule included.*

[13]

## Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE No.:** Presafe 18 ATEX 13478X Issue 0

[15] **Description of Product**

The Fusion detector will detect activation (popping) of the Pressure Safety Valve (PSV) covering range of different types of PSVs. The various POP characteristics are programmable through the Fusion detector wireless user interface. One model is for detecting turn of valve.

The Fusion detectors are battery operated by a single cell or two cells parallel coupled. The cells are non-chargeable. The electronics and cell(s) are mounted inside a non-metallic enclosure. The enclosure is then filled with casting compound. The Fusion unit cannot be opened and has no physical wiring terminals.

Communication takes place only through the Bluetooth communication protocol integrated in the electronics of the unit. The cells cannot be charged or replaced.

It is only the firmware and number of battery cells that are changed on all the different models.

**Type designation**

Fusion, Fusion 100 / Fusion 200 / Fusion 220 / Fusion 300 / Fusion 400 / Fusion 500 / Fusion 600 / Fusion sensor

**Electrical Data**

Battery powered (1x 3V or 2 parallel coupled 3V cells).

**Degrees of protection (IP Code)**

The electronics are totally encapsulated in casting compound inside the enclosure. No risk of ingress of water or dust.

**Ambient temperature:**

-40°C to +80°C

Maximum external source of heat (e.g. the pipeline and valve where the equipment is mounted) shall not exceed +80°C.

**Routine tests**

N / A

[16] **Report No.:** D0003679

[17] **Specific Conditions of Use**

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD

(The Fusion sensor shall be installed on the housing by using a Metal Strapping Band to avoid isolating the metal bracket. Described in the instructions.)

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

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

## [19] Drawings and documents

Number	Title	Rev.	Date
EX-DOC-000021	User Manual Fusion Turn of Valve	5	2018.11.29
EX-DOC-000023	User Manual Fusion Pressure Safety Valve POP detector	2	2018.11.22
EX-DOC-000025	Bill of Material	3	2018.11.06
Ex-100261	PCB, Component Layout	A	2018.10.09
Ex-100261	PCB, Top Side	A	2018.10.09
Ex-100261	PCB, Bottom Side	A	2018.10.09
Ex-100296	Assembly Fusion	A	2018.10.25
Ex-100335	Assembly batteries and PCBA	A	2018.10.24
Ex-100336	Example for steel bracket attach on a PSV	B	2018.11.05
Ex-10395	Electrical Circuit Diagram	A	2018.07.13
Ex-10396	cPIP version.3, PCB Layer Documentation	A	2018.09.24
EX-DOC-10400	Battery CR8LHC-CN2235S_1810024	3	2018.11.29
Ex-10401	Label, Ex Marking	B	2018.12.03
Ex-10402	Label, Batch Marking	A	2018.09.24
Ex-10436	O-ring Ø2 mm	B	2018.09.19
EX-10443	Housing Fusion	A	2018.10.17
EX-10444	Cover for Fusion	A	2018.10.17

## [20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue	2018-12-12	D0003679

END OF CERTIFICATE