

[1]

EU-TYPE EXAMINATION CERTIFICATE

[2] Product Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: **Presafe 15 ATEX 7410X** **Issue 2**

[4] Product: **AMETEK 5100 HD Analyzer**

[5] Manufacturer: **AMETEK Process Instruments**

[6] Address: **150 Freeport Rd.
Pittsburgh, PA USA**

[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 60079-0:2018, EN 60079-2:2014, EN 60079-7:2017, EN 60079-11:2012 and EN 60079-28:2015**

[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 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 2 G Ex d e [op pr T4 Gb] px [ia] IIC T3 Gb -20°C < Ta < +50°C**

Date of issue:
2021-08-11



Bjørn Spongsveen
For DNV Product Assurance AS
The Certificate has been digitally signed.
See www.dnv.com/digitalsignatures for info



[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 15 ATEX 7410X Issue 2

[15] **Description of Product**

The AMETEK 5100 HD Analyzer is an IR (763-2334nm) single or dual stream laser-based instrument used to measure analyte concentration of certain gases of interest. The optics and sampling conditioning system is fully enclosed and can be configured for dual lasers and dual sample cells. Analog and digital I/O (alarms, Ethernet and Modbus) are provided. The customer power and signal connections are made via an Ex e increased safety enclosure. The 5100 HD analyzer is housed in two IP 66 rated stainless steel enclosures, one for the electronics and one for the sample system, and has a certified purge control system mounted to the electronics enclosure. The pressure relief valve on the pressurized enclosure is part of the certified purge control system. The wiring from the Ex d purge controller into the pressurized enclosure is made via cable with Ex d cable glands. There is an RTD in the sample system enclosure powered via an IS Ex ia barrier in the purged enclosure. The sample system also has an Ex d heater assembly.

Type designation

AMETEK 5100 HD-9000-203-VE - X purge option

Electrical Data

240 VAC, 50/60 Hz, 450 VA, 120 VAC 50/60 Hz.

Pressurization Data

Minimum Purging Flow Rate.....140 l/min
Minimum Purge Time..... 5 Minutes
Protective Gas.....Air
Minimum Supply Pressure.....1.4 bar
Maximum Supply Pressure.....8.3 bar
Maximum Leakage Rate.....< 20 l/min
Minimum Overpressure.....62.5 Pa
Maximum Overpressure.....1 000 Pa

Ambient temperature:

-20°C < Ta < +50°C

Routine tests

1. Routine dielectric test of 1 500 VAC for one minute to be applied to Ex e terminals per EN 60079-7.
2. Air leakage testing and correct function of the pressurization system shall be verified on each unit per EN 60079-2.

[16] **Report No.:** 2014-3172
Project No.: PRJC-493152-2013-PRC-USA

[17] **Specific Conditions of Use**

The unit must be installed as to provide protection from sunlight and direct light from luminaires.

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

Met by compliance with the requirements mentioned in item 9.

[19] **Drawings and documents**

Number	Title	Rev.	Date
9700-139-VE	5100 HD Zone 1 Schedule Drawing	F	2021-07-12
9000-168-VE	5100 HD Zone 1 User Manual	B	-

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2014-3176	2016-01-22
1	Modification of cable used	2014-3176	2016-03-08
2	Update standard references and changed “op is” to “op pr”	2014-3176	2021-08-11

END OF CERTIFICATE

