



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx DNV 11.0004X** Page 1 of 5 Certificate history:
Status: **Current** Issue No: 3 [Issue 2 \(2013-11-26\)](#)
Date of Issue: 2021-04-09 [Issue 1 \(2013-07-15\)](#)
[Issue 0 \(2012-02-24\)](#)
Applicant: **AMETEK Process Instruments**
150 Freeport Rd.
Pittsburgh, PA 15238
United States of America
Equipment: **5100 HD Process Spectrometer**
Optional accessory:
Type of Protection: **Ex nA nC ic op pr**
Marking: Ex nA nC ic op pr IIC T3 Gc

Tamb: -20°C to +50°C

Approved for issue on behalf of the IECEx
Certification Body:

Asle Kaastad

Position:

Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

DNV Product Assurance AS
Veritasveien 3
Hovik 1363
Norway





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Manufacturer: **AMETEK Process Instruments**
150 Freeport Rd.
Pittsburgh, PA 15238
United States of America

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

CA/CSA/ExTR12.0002/00
NO/DNV/ExTR12.0006/02

NO/DNV/ExTR12.0006/00
NO/DNV/ExTR12.0006/03

NO/DNV/ExTR12.0006/01

Quality Assessment Reports:

NO/DNV/QAR10.0007/05

NO/PRE/QAR15.0035/02



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The AMETEK 5100 HD Analyzer is an IR (763-2334nm) single or dual 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 analyzer is designed to be non-incendive so that it may be installed in Zone2 hazardous classified locations.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Installation of unit must be shaded to protect the window from direct sunlight and direct light from luminaires



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Equipment (continued):

Type Designations:

9000-119-VE 5100 HD, SPACE-COUPLED, DIV 2/ZONE 2, AC POWERED
9000-118-VE 5100 HD, SPACE-COUPLED, DIV 2/ZONE 2, 24 VDC
9000-140-VE 5100 HD, SPACE-COUPLED, CO, DIV 2/ZONE 2 , AC POWERED
9000-141-VE 5100 HD, SPACE-COUPLED, CO, DIV 2/ZONE 2, 24 VDC
95608WE 5100 HD, DUAL LASER, DIV 2/ZONE 2, AC POWERED
9000-111-VE 5100 HD, DUAL LASER, DIV 2/ZONE 2, 24 VDC
9000-131-VE 5100 HD, SINGLE LASER, DIV 2/ZONE 2, AC POWERED
9000-132-VE 5100 HD, SINGLE LASER, DIV 2/ZONE 2, 24 VDC

The following options are also covered by this cert:

- Heated sample line boot entry, consisting of fully welded flanges on the oven enclosure instead of compression fittings.
- Metric (6 mm) fittings on the oven enclosure instead of the standard 1/4" fittings.
- Use of a Herriott (long sample path) sample cell with any of the above analyzer configurations.

Routine tests:

Routine dielectric test required in accordance with IEC 60079-15:2010 Clause 23.2.1 (clause 6.5)



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Updates standards references and changed op is to op pr