



Type Examination Certificate **CML 16ATEX6147X Issue 1**

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment PY Gas Sample Conditioner, PG3000/PG5000/PG6000/PG7000
- 3 Manufacturer TAECHIN SMET Corporation
- 4 Address 60 Donyu-ro,
Munsan-eup, Paju-si,
Korea
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of equipment intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of certification (affecting correct installation or safe use). These are specified in Section 14.
- 8 This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 8 apply to the manufacture of the equipment or component.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:
EN 13463-1:2009

- 10 The equipment shall be marked with the following:

 II* 2 G T3

* Note: the equipment is suitable for sub-division IIC

Ta=-20°C to +60°C



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11 Description

The PY Gas Sample Conditioner models PG3000, PG5000, PG6000 and PG7000 are a pre-treatment system, for sampling light hydrocarbons, in which the equipment cleans hot, dirty and/or wet gas samples at the process tap in order to deliver a reproducible sample to a variety of analysers located downstream of the equipment.

Materials that are removed by the PY Gas Sample Conditioners are typically carbon polymers and any other solids contained in the process connection. The Sample Conditioners consists of a tap, filter stage, temperature indicator, needle valves, as well as pneumatic temperature control and flow indication equipment.

Variation 1

This variation introduces the following modification:

- i. The certificate has been updated to include PY Gas Sampler models PG5000, PG6000 and PG7000. The Description above has been modified accordingly. Also, a Special Condition for Safe Use (Condition of Certification) has been added as a result of this variation.

12 Certificate history and evaluation Reports

Issue	Date	Associated report	Notes
0	19 Jul 2016	R648A/00	Report for the prime certificate issue
1	18 Jan 2017	R1851A/00	Variation report to include models PG5000, PG6000 and PG7000

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of manufacture

None

14 Special Conditions for Safe Use (Conditions of Certification)

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 If the compressed air supply is continually monitored and stops the process upon failure of the air supply to the PY Gas Sampler Conditioner, then the equipment may be used with process temperatures $\leq 200^{\circ}\text{C}$ in T3 areas, otherwise the process temperature shall be limited to $\leq 195^{\circ}\text{C}$.
- 14.2 The PY Gas Sample Conditioners are to be supplied with regulated dry instrument air with a supply pressure of 5.52 to 6.9 bar (80 to 100 psig), as well as a supply capable of delivering ≥ 8 SCFM. The air temperature shall not exceed 60°C .



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- 14.3 Refrigerants may be used as sample coolant; some refrigerants may constitute a source of release of flammable materials; therefore, it is the responsibility of the end user that any refrigerants utilised are suitable for II 2 G T3 areas in an ambient temperature of -20°C to +60°C.

The end user shall also take into account that the utilised refrigerant does not act as an oxidizer nor become oxidized in the presence of known process substances that are adjacent to the PY Gas Sampler. Chemical compatibility of the refrigerant and the materials utilised in the PY Gas sampler shall also be verified.

Certificate Annex



Certificate Number CML 16ATEX6147X
Equipment PY Gas Sample Conditioner, PG3000, PG5000, PG6000 & PG7000
Manufacturer TAECHIN SMET Corporation

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
PG-3000-01	7 of 8	A	19 July 2016	Sample Condition Parts ID Diagram
PG-3000-08	8 of 8	A	19 July 2016	Sample Condition Parts ID Diagram
PG-E-01	2 of 3	A	19 July 2016	Connection Diagram
PG-P-01	1 of 1	A	19 July 2016	Weldment – Cooling Section 3XXX Series 316L 2" 300# flange
PG-N-01	1 of 1	A	19 July 2016	PY-GAS Certification Label

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
PG-5000	1 to 7	A	18 Jan 2017	Sample Conditioner Part PG5000
PG-6000	1 to 7	A	18 Jan 2017	Sample Conditioner Part PG6000
PG-7000	1 to 7	A	18 Jan 2017	Sample Conditioner Part PG7000