1 # TYPE EXAMINATION CERTIFICATE

2 **Intrinsically Safe System Intended for use in Potentially Explosive Atmospheres**

3 Type Examination Certificate Number: **Baseefa12Y0096X Issue 4**

4 System: **TraceTek TT-FFS System**

5 Certificate Holder: **Chemelex LLC**

6 Address: **899 Broadway Street, CA, 94063-3104 United States of America**

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

8 SGS Baseefa certifies that this system has been found to comply with the following standards

EN 60079-25: 2010

This certificate issue is for the sole purpose of recording a change to the certificate holder's name/address. A technical review has not been undertaken and the standards remain at the editions listed previously.

9 The examination and test results are recorded in confidential Report No's. **See Certificate History.**

10 If the sign "X" is placed after the certificate number, it indicates that the system is subject to special conditions of safe use specified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified intrinsically safe system and not to specific items of equipment therein**.** It is the responsibility of the system certificate holder to supply the relevant documentation to the installer of the intrinsically safe electrical system referred to in this certificate.

The installer has the responsibility to ensure that the system conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.

12 The marking of the system shall include the following :

Ex ia IIC T4 (-20 °C ≤ Tamb +60 °C)

SGS Customer Reference No. **0865** Project File No. **25/0569**

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UKAS PRODUCT CERTIFICATION
0191

On behalf of SGS United Kingdom Ltd.

13 # Schedule

14 ## Certificate Number Baseefa12Y0096X – Issue 4

15 System Description

The TraceTek TT-FFS System is designed to detect the presence of hydrocarbons that may be leaking from a storage vessel or pipe and collecting in a bund or basin. If a leak is detected a signal is sent to the safe area equipment so that the appropriate action can be taken.

The TraceTek TT-FFS system comprises:

1. Apparatus that may be installed in a Non Hazardous Area (Safe Area.)

1.1 Up to two (2) MTL7764+ or MTL7767+ Zener Safety Barriers (4 Channels) (Baseefa01ATEX7217) which are marked:

⟨Ex⟩ II (1) G [Ex ia Ga] IIC (-20°C ≤ Ta ≤ +60°C) or
⟨Ex⟩ II (1) D [Ex ia Da] IIIC (-20°C ≤ Ta ≤ +60°C)

With the following output parameters:
MTL7764+ Terminals 3 wrt 4

U_o	=	12V	C_i	=	0
I_o	=	12mA	L_i	=	0
P_o	=	36mW			

MTL7767+ Terminals 3 wrt 4

U_o	=	15V	C_i	=	0
I_o	=	150mA	L_i	=	0
P_o	=	560mW			

1.2. The above apparatus is to be supplied from apparatus situated in the safe area which is unspecified except that it must not be supplied from nor contain in normal or abnormal conditions a source of potential with respect to earth in excess of 253 volts r.m.s. or 253 volts d.c.

2. Apparatus that may be installed in a Hazardous Area

2.1 Up to two (2) TraceTek TT-FFS Discrete Fuel Sensors (Baseefa11ATEX0221X) which are marked:

⟨Ex⟩ II 1 G Ex ia IIA T4 Ga (-40°C ≤ Ta ≤ +60°C) (U_i = 28V) or
⟨Ex⟩ II 1 G Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +60°C) (U_i = 15V)

3. Permissible Interconnecting Cables

3.1 The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area cables must not exceed the following values:-

3.1.1 MTL7764+

GROUP	C µF	L mH	OR	L/R Ratio µH/Ω
IIC	1.17	246.91		987.65
IIB	8.76	987.65		3950
IIA	35.76	1975.30		7900

3.1.2 MTL7767+

GROUP	C µF	L mH	OR	L/R Ratio µH/Ω
IIC	0.34	1.58		63.21
IIB	3.31	6.32		252.84
IIA	13.76	12.64		505.68

3.2 Wiring to terminals of the safe area apparatus may be achieved by separate cables or by separate circuits within a Type A or Type B multicore cable (as defined in clause 9 of EN 60079-25:2010) subject to the following:-

a. The circuit to be individually screened when used within a Type A multicore cable.
b. The peak voltage of any other circuit within a Type B multicore cable must not exceed 60V.

16 Report Number

See Certificate History.

17 Specific Conditions of Use

1. The TT-FFS does not meet the 500V isolation requirement of IEC 60079-11. If the TT-FFS is installed in an area that potentially fills with standing or running water, installers shall ensure adequate earth bonding in accordance with IEC 60079-14:2007 Clause 12.2.4.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, any additional relevant EHSRs are dealt with in the certificates for the apparatus forming part of this system

19 Drawings and Documents

New drawings submitted for this issue of certificate.

None.

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
1027-0068	1 of 1	C	28-FEB-2018	Label, TraceTek TT-FFS System Approval
1027-0055	1 of 1	B	7/31/14	TraceTek TT-FFS, ATEX/IECEx, Apparatus Control Drawing

These drawings are common to IECEx BAS 12.0067X

20 Certificate History

Certificate No.	Date	Comments
Baseefa12Y0096X	21 May 2012	The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0132/00
Baseefa12Y0096X Issue 1	20 November 2014	To permit minor drawing changes not affecting the intrinsic safety of the system. To correct the certified gas group. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR14.0264/00.
Baseefa12Y0096X Issue 2	17 January 2019	To confirm the certificate is now held in the name of nVent Thermal LLC. To update the product marking label to show the name of nVent Thermal LLC. SGS Baseefa certification report GB/BAS/ExTR18.0123/00 refers.
Baseefa12Y0096X Issue 3	19 November 2025	The issue of this certificate permits existing information (for example on Certificate Schedule Drawings or label marking) to be updated to show the new name, no other changes may be made to the certified design. A technical review has not been undertaken, and the standards remain at the editions listed previously. Report Number: None Project Number: 25/0111
Baseefa12Y0096X Issue 4	8 December 2025	This issue of the certificate permits the introduction of the MTL 7767+ barrier option to the system and amend the certificate accordingly. Additionally, the variation reflects a change in the name of the system certificate holder to Chemelex LLC. The test and assessment are recorded in IECEx ExTR GB/SGS/ExTR25.0169/00 and held with Project No. 25/0569.
For drawings applicable to each issue, see original of that issue.		