



19th February 2013

CHANGE REGISTRATION

This is to certify that the following change(s) have been accepted:

Holder of certificate: Tyco Thermal Controls LLC
307 Constitution Drive & 2415 Bay Road
Menlo Park, Redwood City
CA 94025 CA-94063
USA USA

Change details: The certificates listed below are now held in the name of:

Pentair Thermal Management, LLC
307 Constitution Drive & 2415 Bay Road
Menlo Park, Redwood City
CA 94025 CA-94063
USA USA


Certificates affected:

3143U	3144U	3145U	3146U	3159U
Ex843140U	Ex843141U	Ex843163X	Ex863093X	
Ex863176U	Ex88Y3367U	Ex89Y3130X	Ex89Y3343U	
Ex90C2201U	Ex90C2202X	Ex90C2203X	Ex94Y3070X	
Ex95D3435X	Ex96D3198X	Ex96D3199X	Ex96D3200X	
BAS98ATEX2383X				
Baseefa04ATEX0388X Baseefa06ATEX0183X				
Baseefa06ATEX0184X Baseefa06ATEX0185X Baseefa06ATEX0186X				
Baseefa06ATEX0187X Baseefa06ATEX0188X Baseefa06ATEX0189X				
Baseefa09ATEX0150X Baseefa11ATEX0221X Baseefa11ATEX0276X				
Baseefa11Y0222 Baseefa11Y0277 Baseefa12Y0096X				

The purpose of this document is to permit existing information (for example on Certificate Schedule Drawings or label marking) to be replaced by equivalent new information as described above. No other change may be made to the certified design.

Baseefa

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On behalf of
Baseefa



EC-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC

EC-Type Examination Certificate Number : **BAS98ATEX2383X**

Equipment or Protective System: **THE STS SKIN EFFECT HEATING SYSTEM**

Manufacturer: **RAYCHEM CORPORATION**

Address: **300 Constitution Drive, Menlo Park, CA 94025, USA**

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

The Electrical Equipment Certification Service, notified body number 600 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

98(C)0091 dated 7 April 1999

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1992

EN 50019: 1994

IEEE 844-1991

except in respect of those requirements listed at item 18 of the Schedule.

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

This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

The marking of the equipment or protective system shall include the following:-



II 2 G

Ex e II T (see schedule)

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

File No: **EECS 0865/03/025**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

I M CLEARE
DIRECTOR
16 April 1999



Schedule

EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2383X

Description of Equipment or Protective System

The STS Skin Effect Tracing System is designed for heating long lengths of metallic pipework. It is rated at up to 5 kV, 50/60 Hz. The system comprises a continuous heat pipe which is welded to the pipe to be heated, a power connection box, a remote end termination box, a number of pull boxes and an insulated conductor running within the heat pipe known as the skin effect cable. The current flowing in the skin effect heating cable creates a magnetic field which keeps the return current flowing in the carbon steel heat pipe in the inner skin of the heat tube, thus ensuring that the outside of the heat pipe is effectively at earth potential.

The heat pipe

Carbon steel of heavy gauge $\frac{1}{2}$ " or 1" sch 40A-106 welded to the pipe to be heated either full weld, 50mm/50mm weld or 25mm/150mm weld. The heat pipe lengths are welded to their joints using a coupling piece continuously welded at each end to the heat pipe ensuring an airtight seal. Where the heat pipe enters the power connection box, remote end box or pull/splice box, continuous welds are used. The heat pipe is checked after welding to confirm an airtight seal. As an alternative to welding the heat pipe may be strapped to the metal pipes to be heated with a maximum distance between straps of 300mm.

Power Connection Box

A stainless steel enclosure of welded construction with a hinged lid secured in position with 4 captive steel screws locating in threaded inserts welded to the body of the enclosure. The enclosure is welded to the pipe to be heated.

Within the enclosure is a neutral terminal welded to the heat pipe coupling arrangement drilled for 2 hole compression lugs and a terminal arrangement of Ryton which allows for the connection of 2 hole lugs for the incoming supply and the skin effect heating cable. As an alternative arrangement this terminal is omitted and an arrangement of pairs of bolted 2 hole lugs is used insulated using heat shrinkable motor lead termination kits, MCK-2V or MCK-3V for up to 1000V and MCK-5-1V for voltages up to 5000V.

Remote End Box

Similar in construction to the power connection box but with a reduction in size and the provision of only one terminal which is welded to the heat pipe coupling arrangement and provides the connection facility for the skin effect heating cable via a 2 hole lug.

Pull/Splice Boxes

A two part enclosure of length 350mm and 51mm depth of hexagonal cross-section with outward facing flanges drilled for screw and nut fixing, three each side. The ends are formed of heavy carbon steel, minimum wall thickness 3mm, to which the heat pipe is welded. The sealing of the enclosure is by means of a high temperature (200°C) silicone rubber sealant.



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Schedule

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EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2383X

Skin effect heating cable

The cable is selected from three types - one suitable for use up to 150°C and 5000V with cross linked polyolefin as insulation, one suitable for use up to 250°C and 2000V with PFA fluoropolymer insulation and the third suitable for use up to 90°C and 5000V with cross linked polyethylene as the primary insulation with a Hypalon over jacket. The stranded copper conductor is either tinned for up to 150°C application or nickel coated for higher temperatures and of sizes 6AWG, 4AWG or 2AWG depending on current rating of the system. The cable may be spliced along its length within the pull/splice boxes in accordance with the specified splicing methods.

The design of the system is based upon a stabilised design approach taking worst case conditions into account and the Temperature Class allocated is dependent on that design. The design approach is specified in the Design Rule Specification STS-010.

External earthing provisions are made on the power connection box and the remote end connection box. No external earth is provided on the pull/splice box as this is considered as part of the heat pipe assembly and consequently welded to the pipe to be heated.

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Report Nos.

98(C)0091 dated 7 April 1999

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SPECIAL CONDITIONS FOR SAFE USE

1. The heat pipe shall be connected to earth at intervals along its length to ensure that the voltage appearing on the outside of the pipe does not exceed 1V.
2. The system shall only be installed in association with the power supply and control circuitry specifically designed for it by the manufacturer.
3. At installation it shall be ensured that the current return connections to the heat pipe in the remote end and power connection boxes are free of corrosion when connections are made.

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Essential Health and Safety Requirements

ESSENTIAL HEALTH & SAFETY REQUIREMENTS not covered by Standards listed at (9)		
Clause	Subject	Compliance
1.0.3	Special Checking and maintenance conditions	2.1.1.0.3
1.0.6	Instructions	2.1.1.0.6
1.1.3	Changes in characteristics of materials and combinations thereof	2.1.1.1.3
1.3.3	Hazards arising from strong electric and leakage currents	2.1.1.3.3



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EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2383X

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DRAWINGS

Number	Issue	Date	Description
STS-overview	A	11-Feb-98	Overview of STS system
STS-5001A	A	13-Feb-98	Welding detail
STS-5001B	A	13-Feb-98	Welding detail
STS-5002	A	13-Feb-98	Heat tube fixing to bends
STS-5003	A	13-Feb-98	Jointing of heat pipe
STS-5004	C	7-Apr-99	Pull box arrangement
STS-5005A	B	14-Aug-98	Low voltage <1000V power connection
STS-5005B	B	14-Aug-98	High voltage, up to 5000V power connection
STS-5005C	A	13-Feb-98	High voltage, up to 5000V power connection
STS-5006	A	13-Feb-98	Remote connection box
STS-5001C	A	13-Feb-98	Strapping arrangement
900.000 033	A	11-Feb-98	Wire specification 250°C up to 2000V
900 000 032	A	11-Feb-98	Wire specification 150°C up to 5000V
900 000 031	A	11-Feb-98	Wire specification 90°C up to 5000V
8000-0295-A	B	15-Apr-99	Label

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BASEEFA List Keywords
2HEATER



1 **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use**
in Potentially explosive atmospheres
Directive 94/9/EC

3 **Supplementary EC-Type Examination Certificate Number: BAS98ATEX2383X/1**

4 **Equipment or Protective System: STS SKIN EFFECT HEATING SYSTEM**

5 **Manufacturer: RAYCHEM CORPORATION**

6 **Address: 300 Constitution Drive, Menlo Park, California 94025, USA**

7 This supplementary certificate extends EC-Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

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

File No: EECS 0865/03/025A

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I M CLEARE
DIRECTOR
5 April 2001



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Schedule

14 **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE N° BAS98ATEX2383X/1**

Description of the Variation to the Equipment or Protective System

VARIATION 1.1

To allow the use of an alternative design of pull box as detailed on drawings 907554-A and STS-5004b.

Report No.

None

Special Conditions For Safe Use

See original certificate.

Essential Health and Safety Requirements

See original certificate.

DRAWINGS

Number	Sheet	Issue	Date	Description
907554-A	1 & 2	A	5/3/01	Low profile pull box
STS-5004b		A	15/3/01	Low profile pull box installation detail

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1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 Supplementary EC - Type Examination Certificate Number: BAS98ATEX2383X/2

4 Equipment or Protective System: STS SKIN EFFECT HEATING SYSTEM

5 Manufacturer: Tyco Thermal Controls LLC

6 Address: 2415 Bay Road, Redwood City, CA94063, USA

7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa (2001) Ltd., Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

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

Baseefa Customer Reference No. **0865**

Project File No. **05/0356**

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On behalf of
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14

Certificate Number BAS98ATEX2383X/2

15 Description of the variation to the Equipment or Protective System

Variation 2.1

To allow an increase in heat pipe diameter up to 2".

Variation 2.2

To allow an alternative arrangement with the heat pipes embedded in concrete for frost heave protection instead of being welded to a process pipe.

16 Report Number

05(CI)0356

17 Special Conditions for Safe Use

None additional to those listed previously

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
STS-5020	A	5/13/05	General arrangement
STS-5021	A	5/13/05	Sectional view
STS-5022A	A	5/13/05	Heat tube coupling in concrete
STS-5023	A	5/13/05	Pullbox
STS-5024	A	5/13/05	Pullbox installation layout
STS-5025	A	5/13/05	Power connection box detail
STS-5026	A	5/13/05	End termination detail
STS-5027	A	5/13/05	Splice connection
STS-5030	A	5/13/05	Power connection
STS-5031	A	5/13/05	End termination with conduit
STS-5032	A	5/13/05	Pull box with conduit
STS-5033	A	5/13/05	Jumper assembly with conduit
STS-5034	A	5/13/05	Heat tube coupling at wall
STS-5035	A	5/13/05	Heat tube coupling at base
STS-5036	A	6/2/05	Splice connection – MT
907819-A	A	6/2/05	Overview of embedded applications
8000-0295-A	C	5/25/05	label



SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/3**
- 4 Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**
- 5 Manufacturer: **Tyco Thermal Controls LLC**
- 6 Address: **2415 Bay Road, Redwood City, CA94063, USA**
- 7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

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Baseefa Customer Reference No. **0865**

Project File No. **06/0784**

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Certificate Number BAS98ATEX2383X/3

15 Description of the variation to the Equipment or Protective System

Variation 3.1

To allow an alternative label fixing method.

Variation 3.2

To allow the use of an ATEX approved flexible conduit system covered by SEV 05 ATEX 0105.

Variation 3.3

To include a terminal box for the connection of RTDs.

16 Report Number

06(CI)0784

17 Special Conditions for Safe Use

1. The flexible conduit system is suitable for use in ambient temperatures from -20°C to +85°C.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
STS-5038	D	10/26/06	Junction box label
STS-5039	B	28-AUG-06	RTD junction box
8000-0295-A	E	10/23/06	STS metal tag



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 94/9/EC

3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/4**

4 Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**

5 Manufacturer: **Tyco Thermal Controls LLC**

6 Address: **2415 Bay Road, Redwood City, CA94063, USA**

7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

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Baseefa Customer Reference No. 0865

Project File No. 06/0616

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Schedule

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Certificate Number BAS98ATEX2383X/4

15 Description of the variation to the Equipment or Protective System

Variation 4.1

To confirm that the equipment covered by this certificate has been reviewed against the requirements of EN 60079-0: 2006, EN 60079-7: 2007 and IEEE 844-2000 in respect of the differences from EN 50014: 1992, EN 50019: 1994 and IEEE 844-1991 and that none of these differences in the Standards affects this equipment.

16 Report Number

06(CI)0616

17 Special Conditions for Safe Use

None additional to those listed previously.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

None



SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/5**
- 4 Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**
- 5 Manufacturer: **Tyco Thermal Controls LLC**
- 6 Address: **2415 Bay Road, Redwood City, CA94063, USA**
- 7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

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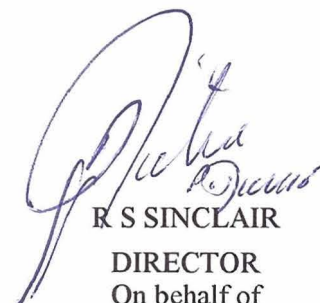
Baseefa Customer Reference No. **0865**

Project File No. **07/0872**

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Schedule

14

Certificate Number BAS98ATEX2383X/5

15 Description of the variation to the Equipment or Protective System

Variation 5.1

To include additional drawings defining the cable.

16 Report Number

None.

17 Special Conditions for Safe Use

None additional to those listed previously.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
907925-A	A	03/16/07	STS-MT Skin effect cables
907926-A	B	09/13/07	STS-HT Skin effect cables
907927-A	A	03/16/07	STS-XT Skin effect cables



1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/6**

4 Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**

5 Manufacturer: **Tyco Thermal Controls LLC**

6 Address: **2415 Bay Road, Redwood City, CA94063, USA**

7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

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Baseefa Customer Reference No. **0865**

Project File No. **08/0168**

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On behalf of
Baseefa (2001) Ltd.



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Schedule

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Certificate Number BAS98ATEX2383X/6

15 Description of the variation to the Equipment or Protective System

Variation 6.1

Minor drawing changes.

Variation 6.2

To allow an increase in the rating of PFA insulated cable up to 2500V

16 Report Number

None.

17 Special Conditions for Safe Use

None additional to those listed previously.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
907925-A	B	02/11/08	STS-MT Skin effect cables



SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/7**
- 4 Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**
- 5 Manufacturer: **Tyco Thermal Controls LLC**
- 6 Address: **307 Constitution Drive, Menlo Park, CA 94025, USA**
- 7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

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Baseefa Customer Reference No. 0865

Project File No. 09/0616

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Registered in England No. 4305578. Registered address as above.

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On behalf of
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Schedule

14

Certificate Number BAS98ATEX2383X/7

15

Description of the variation to the Equipment or Protective System

Variation 7.1

To allow an alternative splice rated up to 200°C

16

Report Number

09(CI)0616

17

Special Conditions for Safe Use

None additional to those listed previously

18

Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19

Drawings and Documents

Number	Issue	Date	Description
907991-A	A	05/12/09	STS-HT splice, max 200°C application



SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/8**
- 4 Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**
- 5 Manufacturer: **Tyco Thermal Controls LLC**
- 6 Address: **307 Constitution Drive, Menlo Park, CA 94025, USA**
- 7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

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Baseefa Customer Reference No. **0865**

Project File No. **10/0123**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



13

Schedule

14

Certificate Number BAS98ATEX2383X/8

15 Description of the variation to the Equipment or Protective System

Variation 8.1

To allow an alternative splice rated up to 250°C

16 Report Number

10(CI)0123

17 Special Conditions for Safe Use

None additional to those listed previously

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
908020-A	A	12/17/09	STS-HT splice, max 250°C application



1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 3** Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/9**
- 4** Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**
- 5** Manufacturer: **Tyco Thermal Controls LLC**
- 6** Address: **307 Constitution Drive, Menlo Park, CA 94025, USA**
- 7** This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa, Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

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Baseefa Customer Reference No. **0865**

Project File No. **11/0975**

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P. S. SINCLAIR
DIRECTOR
On behalf of
Baseefa



13

Schedule

14

Certificate Number BAS98ATEX2383X/9

15

Description of the variation to the Equipment or Protective System

Variation 9.1

Minor drawing changes not affecting the certification.

16

Report Number

None

17

Specific Conditions of Use

None additional to those listed previously

18

Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19

Drawings and Documents

Number	Sheet	Issue	Date	Description
907926-A	1	C	11/07/11	STS-HT skin effect cables



SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **BAS98ATEX2383X/10**
- 4 Equipment or Protective System: **STS SKIN EFFECT HEATING SYSTEM**
- 5 Manufacturer: **Tyco Thermal Controls LLC**
- 6 Address: **307 Constitution Drive, Menlo Park, CA 94025, USA**
- 7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. Baseefa, Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

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

Baseefa Customer Reference No. **0865**

Project File No. **12/0230**

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R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



13

Schedule

14

Certificate Number BAS98ATEX2383X/10

15 **Description of the variation to the Equipment or Protective System**

Variation 10.1

Minor drawing changes not affecting the certification.

16 **Report Number**

None

17 **Specific Conditions of Use**

None additional to those listed previously

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
907926-A	1	D	03/01/12	STS-HT skin effect cables

1 SUPPLEMENTARY EU - TYPE EXAMINATION CERTIFICATE

**2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 Supplementary EU - Type Examination Certificate Number: BAS98ATEX2383X/11

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

4 Product: STS Skin Effect Heating System

5 Manufacturer: nVent Thermal LLC

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

7 This supplementary certificate extends EC – Type Examination Certificate No. BAS98ATEX2383X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that the product, as modified by this supplementary certificate, 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.

8.1 The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. SGS Baseefa, Notified Body Number 1180, is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate it has issued.

SGS Baseefa Customer Reference No. 0865

Project File No. 17/0865

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SGS Baseefa Limited

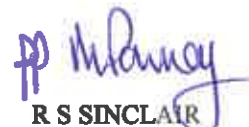
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R S SINCLAIR

TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

M POWNEY
Certification
Manager

13 Schedule

14 Certificate Number BAS98ATEX2383X/11

15 Description of the variation to the Product

Variation 11.1

To confirm the certificate is now held in the name of nVent Thermal LLC.

Variation 11.2

To update the product marking label to show the name of nVent Thermal LLC.

16 Report Number

SGS Baseefa certification report GB/BAS/ExTR18.0101/00.

17 Specific Conditions of Use

None additional to those listed previously.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
8000-0295-A	1 of 1	H	18-FEB-2018	Label
STS-5038	1 of 1	F	28-FEB-2018	Junction Box Label