



1 **EC - TYPE EXAMINATION CERTIFICATE**
2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
3 **Directive 94/9/EC**

3 EC - Type Examination Certificate **Baseefa02ATEX0010X**
Number :

4 Equipment or protective system: **MODEL 848T MULTI SENSOR TEMPERATURE TRANSMITTER**

5 Manufacturer : **ROSEMOUNT INC.**

6 Address : **12001 Technology Drive, Eden Prairie, Minnesota 55344-3695, USA**

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

8 Baseefa (2001) Ltd. Notified body number 1180 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 No. 02(C)0021 dated

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

EN 50014: 1997 + Amds 1 & 2 EN 50020: 1994 EN 50284: 1999

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

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

11 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.

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

⊕ II 1 G EEx ia IIC T4 (-50°C < T_{amb} < 60°C)

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

Baseefa (2001) Ltd. Customer Reference No. 0914

Project File No. 02/0021

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

R S SINCLAIR

DIRECTOR

On behalf of

Baseefa (2001) Ltd.

Baseefa (2001) Ltd.

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Schedule

15 Description of Equipment or Protective System

The Model 848T Multi Sensor Temperature Transmitter is designed to convert temperature signals into an electrical signal.

The apparatus comprises a sensor board containing the connections for supply input, signal output and sensor input, a Fieldbus output board containing the communication circuits, and an optional FISCO transient protection board, all housed in a plastic enclosure. External connections are made via an integral terminal block.

Input/Output Parameters

Terminal BUS, pins 1,2 without FISCO option:

$$U_i = 30V$$

$$I_i = 0.3A$$

$$P_i = 1.3W$$

The above parameters must be derived from a linear supply (resistive output)

$$C_i = 0$$

$$L_i = 0$$

Terminal BUS, pins 1,2 with FISCO option:

$$U_i = 15V$$

$$\text{Group IIC, } I_i = 215\text{mA, } P_i = 2W$$

$$\text{Group IIB, } I_i = 500\text{mA, } P_i = 5.32W$$

$$C_i = 0$$

$$L_i = 0$$

The above values of C_i and L_i do not exceed those specified for the FISCO model.

Terminals pairs INPUT 1/2, INPUT 3/4, INPUT 5/6, INPUT 7/8, each:

$$U_o = 12.5V$$

$$I_o = 66\text{mA}$$

$$P_o = 41\text{mW}$$

$$C_i = 0$$

$$L_i = 0$$

Load Parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to the sensor terminals must not exceed the following values:

GROUP	CAPACITANCE in μF	INDUCTANCE in mH	OR	L/R RATIO in $\mu\text{H}/\text{ohm}$
IIC	1.19	8.5		168
IIB	7.6	32		684
IIA	27.9	68		1368

16 Report No.

02(C)0021



17 Special Conditions for Safe Use

The apparatus must be installed in an enclosure which affords it a degree of protection of at least IP20. Non-metallic enclosures must have a surface resistance of less than 1Gohm, light alloy or zirconium enclosures must be protected from impact and friction when installed.

The apparatus will not meet the 500V rms isolation test required by Clause 6.4.12 of EN50 020: 1994 when the optional transient protection (FISCO) board is fitted and this must be taken into account when installing the apparatus.

18 Essential Health and Safety Requirements

As follows, in addition to those covered by the standards listed at item 9

ESSENTIAL HEALTH & SAFETY REQUIREMENTS not covered by Standards listed at (9)		
Clause	Subject	Compliance
1.1.3	Changes in characteristics of materials and combinations thereof	Report No 02(C)0021 Clause 5
1.2.2	Components for incorporation or replacement	Report No 02(C)0021 Clause 5
1.2.5	Additional means of protection	Report No 02(C)0021 Clause 5
1.2.7	Protection against other hazards	Report No 02(C)0021 Clause 5
1.4.2	Withstanding attack by aggressive substances	Report No 02(C)0021 Clause 5

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
00848-4200	1-3	AD	9/10/01	Fieldbus Output Board Circuit Diagram
00848-4201	1-3	AD	01/01	Fieldbus Output Board Details
00848-4202	1&2	AD	9/10/01	Fieldbus Output Board Component Layout
00848-4210*	1-6	AG	7/22/02	Sensor Board Circuit Diagram
00848-4211*	1-3	AD	8/16/02	Sensor Board Details
00848-4212*	1-3	AD	8/16/02	Sensor Board Component Layout
00848-4210	1-6	AE	9/10/01	Sensor Board Circuit Diagram
00848-4211	1&2	AC	1/16/01	Sensor Board Details
00848-4212	1-3	AC	9/11/01	Sensor Board Component Layout
00644-4250	1	AB	2/11/00	Transformer
00848-4434	1&3	AC	7/17/02	Tag Label, including Certification Marking
00848-4414	1	AD	9/14/01	General Assembly
00848-4222	1	AE	4/30/02	Transient Board Component Layout
00848-4221	1-3	AD	01/01	Transient Board Details
00848-4220	1	AC	9/10/01	Transient Board Circuit Diagram

* These drawings are common to Certificate No. BAS01ATEX3198U/1.



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: Baseefa02ATEX0010X/1

4 Equipment or Protective System: MODEL 848T MULTI SENSOR TEMPERATURE TRANSMITTER

5 Manufacturer: ROSEMOUNT INC

6 Address: 12001 Technology Drive, Eden Prairie, Minnesota 55344-3695, USA

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0010X 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, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0914

Project File No. 03/0005

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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On behalf of
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Schedule

14

Certificate Number Baseefa02ATEX0010X/1

15 Description of the variation to the Equipment or Protective System

Variation 1.1

To permit changes to the Fieldbus Output Board assembly, the certification marking, and a change to the input parameters as shown below.

Input Parameters, Terminal BUS, Pins 1 & 2, with FISCO option:

$$U_i = 17.5V$$

$$I_i = 380mA$$

$$P_i = 5.32W$$

$$C_i = 0$$

$$L_i = 0$$

The above values of C_i and L_i do not exceed those specified for the FISCO model.

16 Report Number

None

17 Special Conditions for Safe Use

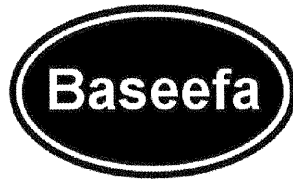
None additional to those listed previously

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	Sheet	Issue	Date	Description
00848-4202	1&2	AF	11/21/02	Fieldbus Output Board Assembly
00848-4434	1&3	AD	12/16/02	Tag Label, Including Certification Marking



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 **Baseefa02ATEX0010X/2**
Examination Certificate Number:

4 Equipment or Protective System: **MODEL 848T MULTI SENSOR TEMPERATURE TRANSMITTER**

5 Manufacturer: **ROSEMOUNT INC**

6 Address: **12001 Technology Drive, Eden Prairie, Minnesota 55344-3695, USA**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0010X 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 (2001) Ltd. Customer Reference No. 0914

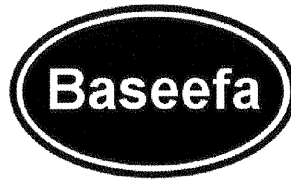
Project File No. 03/0675

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On behalf of
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Schedule

14

Certificate Number Baseefa02ATEX0010X/2

15

Description of the variation to the Equipment or Protective System

Variation 2.1

To permit the apparatus, excluding FISCO Models, to be supplied from Analog Input Modules of Type AI4H-Ex, Model AI 930 S and Analog Input Modules of Type AI4-Ex, Model AI 910 S in accordance with EC-Type Examination Certificate PTB 00 ATEX 2058.

16

Report Number

None.

17

Special Conditions for Safe Use

See original certificate.

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.



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: **Baseefa02ATEX0010X/3**

4 Equipment or Protective System: **Model 848T Multi Sensor Temperature Transmitter**

5 Manufacturer: **Rosemount Inc.**

6 Address: **12001 Technology Drive, Eden Prairie, Minnesota 55344-3695, USA**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0010X 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, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. **0914**

Project File No. **03/0909**

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Baseefa (2001) Ltd.

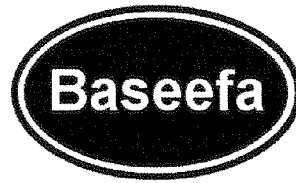
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A handwritten signature in black ink, appearing to read "M. R. Corfield".

M. R. CORFIELD

pp. R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.



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Schedule

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Certificate Number Baseefa02ATEX0010X/3

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

Variation 3.1

To permit minor electrical and mechanical changes. These changes do not affect intrinsic safety.

Variation 3.2

To permit minor changes to the labelling. This change does not affect intrinsic safety.

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	Sheet	Issue	Date	Description
00644-0101 *#	1 to 2	AC	8/22/03	Transformer
00848-4201 *#	1 to 3	AF	08/03	PWB, Comm Board
00848-4202 *#	1 to 2	AK	11/13/03	CCA 848 Multisensor Comm
00848-4222 *#	1 of 1	AF	07/25/03	CCA, 848 Multisensor Transient/FISCO
00848-4434 *	1 to 3	AG	10/8/03	848 Cover / Tag Label Baseefa I.S., FISCO, Type-n Component

* These drawings are common to Certificate No. BAS01ATEX3198U/3

These drawings are common to and held with Certificate No. BAS01ATEX3199X/3