

EC - TYPE EXAMINATION CERTIFICATE

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

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- 3 EC - Type Examination Certificate Number: **Baseefa03ATEX0499X**
- 4 Equipment or Protective System: **MODEL 644 FIELDBUS TEMPERATURE TRANSMITTER**
- 5 Manufacturer: **ROSEMOUNT INC.**
- 6 Address: **12001 Technology Drive, Eden Prairie, Minnesota 55344-3695, USA**
- 7 This equipment or protective system 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. **03(C)0060**
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 + Amendments 1 & 2 EN 50020: 2002 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 for 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. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- 12 The marking of the equipment or protective system shall include the following :

⊕ II 1 G EEx ia IIC T4 (-50°C ≤ Ta ≤ +60°C)

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

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

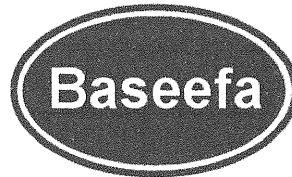
Project File No. **03/0060**

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.

Baseefa (2001) Ltd.

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



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Schedule

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Certificate Number Baseefa03ATEX0499X

15 Description of Equipment or Protective System

The Model 644 Fieldbus Temperature Transmitter is designed to convert a temperature signal into an electrical signal and is designed to operate in Foundation Fieldbus or Profibus PA mode by a change in software.

The apparatus comprises a terminal / filter board, an analogue-to-digital board and a microboard encapsulated within a plastic enclosure. Terminals are provided for connection to the power supply, the communications loop and to the temperature sensors. A jumper block enables connection to an optional display module and a simulation switch is also provided.

Input parameters:

I.S. Power / Loop:

$$\begin{array}{ll} U_i = 30V & C_i = 2.1nF \\ I_i = 300mA & L_i = 0 \\ P_i = 1.3W & \end{array}$$

FISCO Power / Loop:

$$\begin{array}{ll} U_i = 17.5V & C_i = 2.1nF \\ I_i = 380mA & L_i = 0 \\ P_i = 5.32W & \end{array}$$

Sensor:

$$\begin{array}{ll} U_o = 13.9V & C_i = 7.7nF \\ I_o = 23mA & L_i = 0 \\ P_o = 79mW & \end{array}$$

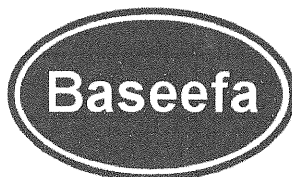
Load Parameters

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

GROUP	CAPACITANCE μF	INDUCTANCE mH	OR	L/R RATIO $\mu H/\Omega$
IIC	0.73	30.2		187
IIB	4.8	110.9		710
IIA	17.69	231.2		1300

16 Report Number

03(C)0060



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 $1G\Omega$; light alloy or zirconium enclosures must be protected from impact and friction when installed.

18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

Number	Sheets	Issue	Date	Description
00644-1010	1 & 3	AN	8.6.03	IS and Type n Label
00644-1015	1 to 4	AK	5.16.03	644 Range Label
00644-2011	1 to 3	AA	12.12.02	Approval Drawing 644/244E
00644-2100	1 to 3	AC	08.22.03	Platinum Fieldbus Microboard Schematic
00644-2101	1 to 3	AD	08.22.03	PWB, Micro Board
00644-2102	1	AB	06.12.03	CCA, Micro Board
00644-2110	1 to 3	AC	07.29.03	Platinum Fieldbus A/D Board Schematic
00644-2111	1 to 3	AB	05.21.03	PWB, A/D Board
644-2112	1 & 2	AB	05.21.03	CCA, A/D Board
00644-2120	1 & 2	AC	08.06.03	Platinum Fieldbus Filter Board Schematic
00644-2121	1 to 3	AB	06.18.03	Platinum Fieldbus Filter Board PWB
00644-2122	1	AB	06.12.03	Platinum Fieldbus Filter Board CCA
00644-4250	1	AC	12.18.02	Transformer
00644-0101	1 & 2	AC	08.22.03	Transformer

These drawings are common to BAS99ATEX3084U/3 and BAS00ATEX3145/4.