



## EC - TYPE EXAMINATION CERTIFICATE

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

- 3 EC - Type Examination Certificate Number: **Baseefa04ATEX0052X**
- 4 Equipment or Protective System: **Model 5081-G-HT/FF-73 Transmitter**
- 5 Manufacturer: **ROSEMOUNT ANALYTICAL INC**
- 6 Address: **2400 Barranca Parkway, Irvine, CA 92714-5018, 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)0744
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 50014: 1997 + Amds 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 :

**Ex** II 1 G      EEx ia IIC T4      (-20°C ≤ T<sub>amb</sub> ≤ +65°C)

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

Baseefa (2001) Ltd. Customer Reference No. 0911

Project File No. 03/0744

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.

Health and Safety Laboratory Site, Harpur Hill,  
Buxton, Derbyshire SK17 9JN  
Telephone +44 (0) 1298 28255 Fax +44 (0) 1298 28216  
e-mail [info@baseefa2001.biz](mailto:info@baseefa2001.biz) web site [www.baseefa2001.biz](http://www.baseefa2001.biz)  
Registered in England No. 4305578 at 13 Dovedale Crescent, Buxton,  
Derbyshire, SK17 9BJ

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

13

## Schedule

14

Certificate Number Baseefa04ATEX0052X

### 15 Description of Equipment or Protective System

The Model 5081-G-HT/FF-73 Transmitter is designed to convert an electrical signal from a remote zirconium oxide sensor and temperature sensor into a 4-20mA Fieldbus / HART signal.

The apparatus consists of several printed circuit boards, terminal facilities and a liquid crystal display (LCD), all housed in an epoxy coated aluminium or stainless steel enclosure.

The model designation for HART is 5081-G-HT-73.

The model designation for Fieldbus is 5081-G-FF-73.

#### Input/Output Parameters

##### Model 5081-G-HT-73

Supply Terminals 15 and 16:

$$\begin{array}{ll} U_i = 30V & C_i = 0 \\ I_i = 200mA & L_i = 0 \\ P_i = 0.9W \end{array}$$

The above supply must be derived from a linear supply.

##### Model 5081-G-FF-73

Supply Terminals 15 and 16:

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

The above supply must be derived from a linear supply.

##### Models 5081-G-HT-73 & 5081-G-FF-73

Sensor Terminals 7, 8 & 10

$$\begin{array}{ll} U_o = 6.51V & C_i = 8.6\mu F \\ I_o = 87mA & L_i = 120\mu H \\ P_o = 142mW \end{array}$$

#### 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 $\mu F$	INDUCTANCE mH	OR	L/R RATIO $\mu H/\Omega$
IIC	16	4.7		254
IIB	560	19.8		952
IIA	1000	40.8		2013



**16 Report Number**

03(C)0744

**17 Special Conditions for Safe Use**

1. The apparatus enclosure may contain light metals. The apparatus must be installed in such a manner as to minimise the risk of impact or friction with other metal surfaces.

**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	Sheet	Issue	Date	Description
1700468	1	A	2-03-04	Certified Product, Mod 5081-G-HT XMTR IS
1700471	1	A	2-03-04	Certified Product, Mod 5081-G-FF XMTR IS
1700479	1 to 2	B	2-03-04	Schematic 5081 G Analog Board
1700478	1	B	10.17.03	PCB Assembly 5081 G Analog Board
33885-00	1	A	07.08.03	PCB 5081 G Analog Board
33885-00	Top Silk	A	07.17.03	PCB Analog Board Top Silk
33885-00	Top	A	07.17.03	PCB Analog Board Top
33885-00	GND A	A	07.17.03	PCB Analog Board GND1
33885-00	PWR	A	07.17.03	PCB Analog Board +5V
33885-00	Bottom	A	07.17.03	PCB Analog Board Bottom
33885-00	Bot Silk	A	07.17.03	PCB Analog Board Bot Silk
1700425	1 to 3	E	8.12.03	Schematic HT/FF CPU
1700426	1 to 2	A	04.23.02	PCB Assembly HT/FF CPU
33773-00	1	B	05.03.02	PCB CPU Board
*33773-00	Top Silk	B	04.29.02	PCB CPU Board Top Silk
*33773-00	Top	B	04.29.02	PCB CPU Board Top
*33773-00	GND	B	04.29.02	PCB CPU Board GND
*33773-00	+5V	B	04.29.02	PCB CPU Board +5V
*33773-00	Bottom	B	04.29.02	PCB CPU Board Bottom
*70014-00	1 to 8	C	06.12.01	Fieldbus Output Board
23982-00/03	1	A	05.02.02	Fieldbus Output Mod 5081
2400293	1	AD	03.16.97	Schematic Display Board
23638-01	1	C	08.25.97	PCB Assembly Display
33423-00	1	F	08.25.97	PCB Display Board
*33423-00	1	F	08.13.97	PCB Display Board Top Silk
*33423-00	1	F	08.13.97	PCB Display Board Top
*33423-00	1	F	08.13.97	PCB Display Board Inner Layer 1
*33423-00	1	F	08.13.97	PCB Display Board Inner Layer 2
*33423-00	1	F	08.13.97	PCB Display Board GND
*33423-00	1	F	08.13.97	PCB Display Board Bottom
*33423-00	1	F	08.13.97	PCB Display Board Bottom Silk
9080161	1 & 2	D	8.8.02	Transformer Power Supply 5081 Analog
45081G01	1	A	08.05.03	Model 5081-G-HT/FF Terminal Wiring

\* These drawings are common to and are held with Certificate No BAS02ATEX1284.