



1 **EC - TYPE EXAMINATION CERTIFICATE**

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

3 EC - Type Examination Certificate Number: **Baseefa04ATEX0246X**

4 Equipment or Protective System: **Spur Connector – Entity Type 9323-SC**

5 Manufacturer: **Measurement Technology Limited**

6 Address: **Luton, Bedfordshire, LU1 3JJ**

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. 04(C)0604

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

EN 50014:1997 + Amd 1 & 2 EN 50020:2002

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 2G EEx ib IIC T4 (-40°C ≤ T_a ≤ 70°C)

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

Baseefa (2001) Ltd. Customer Reference No. 0703

Project File No. 04/0604

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

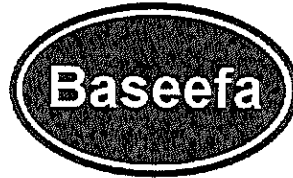
DIRECTOR

On behalf of

Baseefa (2001) Ltd.

Baseefa (2001) Ltd.
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Derbyshire, SK17 9BJ

Re-issued 1st September 2004 to replace original



13

Schedule

14

Certificate Number Baseefa04ATEX0246X

15 Description of Equipment or Protective System

The Spur Connector - Entity Type 9323-SC is designed to interface between a certified FISCO power supply (e.g. a Type MTL9121) in the safe area and an Intrinsically Safe entity certified device located in a Zone 1 hazardous area.

The Spur Connector - Entity Type 9323-SC comprises a printed circuit board (pcb) with mounted electronic components forming duplicated active current limiting circuits in both the send and return paths of the Spur Connector. The pcb is encapsulated in a plastic enclosure. External circuit connections are made at Field and Trunk terminals.

The Spur Connector - Entity Type 9323-SC has been designed to meet the requirements of the Fieldbus Intrinsically Safe Concept (FISCO) to IEC 60079-27 Ed. 1.0 TS.

Input Parameters

Trunk Terminals 1 & 2

$$U_i = 14.8V$$

$$I_i = 380mA$$

$$P_i = 5.32W$$

$$C_i = 0$$

$$L_i = 0$$

Output Parameters

Field Terminals 3 & 4

$$U_o = 14.8V$$

$$I_o = 77mA$$

$$P_o = 1.15W$$

$$C_o = 0.15\mu F$$

$$L_o = 2mH$$

16 Report Number

04(C)0604

17 Special Conditions for Safe Use

1. The Spur Connector - Entity Type 9323-SC has a plastic enclosure and must only be cleaned with a damp cloth to avoid the danger of ignition due to a build up of an electrostatic charge.

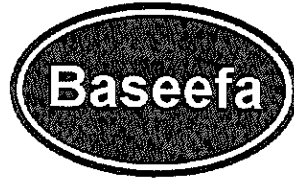
18 Essential Health and Safety Requirements

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

19 Drawings and Documents

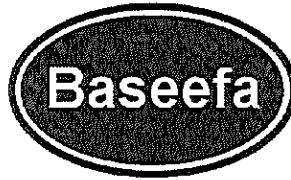
Number	Sheet	Issue	Date	Description
CI9323-1	1	2	8.04	PCB Parts
CI9323-1	2	2	8.04	Circuit
CI9323-1	3	2	8.04	Component Layout

Certificate Number
Baseefa04ATEX0246X



Issued 13th July 2004
Page 3 of 3

Number	Sheet	Issue	Date	Description
CI9323-1	4	2	8.04	Track Layout
CI9323-1	5	1	6.04	Certification Label
CI9323-1	6	1	6.04	General Assembly
CI9323-1	7	2	8.04	General Assembly Details



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: **Baseefa04ATEX0246X/1**

4 Equipment or Protective System: **Spur Connector – Entity Type 9323-SC**

5 Manufacturer: **Measurement Technology Limited**

6 Address: **Luton, Bedfordshire, LU1 3JJ**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa04ATEX0246X 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. 0703

Project File No. 04/0728

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Baseefa (2001) Ltd.

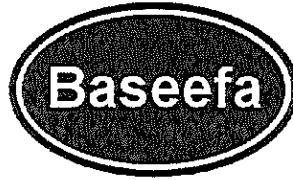
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P. DICKIE
R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.



13

Schedule

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Certificate Number Baseefa04ATEX0246X/1

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

Variation 1.1

To permit the following:-

- a. Minor changes to capacitor C1 to C4 values and voltage ratings of C5 to C8.
- b. Minor changes to production information.

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
CI9323-1	1	3	9.04	Parts List
CI9323-1	3	3	9.04	PCB Component Layout
CI9323-1	6	2	9.04	General Arrangement