

1 **TYPE EXAMINATION CERTIFICATE**

2 **Intrinsically Safe System Intended for use in Potentially Explosive Atmospheres**

3 Type Examination Certificate **Baseefa02Y0156**
Number:

4 System: **MTL5018AC Two channel switch/proximity detector interface system**

5 Certificate Holder: **MTL Instruments Pvt. Limited**

6 Address: **Sholinganallur, Chennai-600 119, India**

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

8 Baseefa (2001) Ltd. certifies that this system has been found to comply with the following standards
EN 50 039:1980

9 The examination and test results are recorded in confidential Report No. 02(C)0330 dated 20th November 2002

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

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified intrinsically safe system and not to specific items of equipment therein. It is the responsibility of the system certificate holder to supply the relevant documentation to the installer of the intrinsically safe electrical system referred to in this certificate. The installer has the responsibility to ensure that the system conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.

12 The marking of the system shall include the following :

EEx ia IIC

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

Baseefa (2001) Ltd. Customer Reference No. 2372

Project File No. 02/0330

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the system 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.

Re-Issued 22nd May 2003

Schedule

15 System Description

An MTL5018AC Two channel switch/proximity detector interface system comprises:

1. Apparatus that may be installed in a Non Hazardous Area (Safe Area.)

1.1 An MTL5018AC Two channel switch/proximity detector interface to Certificate No. Baseefa02ATEX0155 and coded [EEEx ia] IIC ($-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$)

1.2. The above apparatus is to be supplied from apparatus situated in the safe area which is unspecified except that it must not be supplied from nor contain in normal or abnormal conditions a source of potential with respect to earth in excess of 265 volts r.m.s. or 265 volts d.c. maximum

2. Apparatus that may be installed in an area suitable for Category 1 equipment.

2.1 Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of Clause 5.4 of EN 50020:2002. The PRTs and resistors must have a surface area of between 20mm² and 10cm². They must be provided with a degree of protection of at least IP20, be installed in accordance with the requirements of clause 6 of EN 50020:2002 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.

Devices such as switches may be allocated a temperature class of T4 in a 60°C ambient, as are PRTs and resistors with a surface area of greater than 20mm², since the maximum power dissipated is less than 1.2W.

A temperature class and ambient temperature have not been awarded to the system as a whole since each item of equipment contained in the safe and hazardous areas shall retain its individual temperature class and ambient temperature as appropriate.

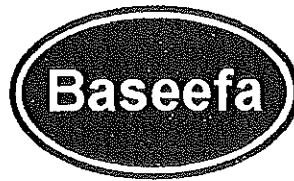
3. Permissible Interconnecting Cables

3.1 The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area cables must not exceed the following values:-

GROUP	C μF	L mH	OR	L/R Ratio μH/Ω
IIC	2.41	175		967
IIB	16.8	680		3870
IIA	75	1000		7740

3.2 Wiring to terminals 1 & 2 or 4 & 5 of the safe area apparatus may be achieved by separate cables or by separate circuits within a Type A or Type B multicore cable (as defined in clause 5.3 of EN50 039) subject to the following:-

- The circuit to be individually screened when used within a Type A multicore cable.
- The peak voltage of any other circuit within a Type B multicore cable must not exceed 60V.



16 Report

02(C)0330

17 Special Conditions for Safe Use

None

18. Drawings and Documents

Number	Sheet	Issue	Date	Description
MTLI/SCI50-018-01	1	1	11.02	MTL5018AC Installation Diagram
MTLI/SCI50-018-01	2	1	11.02	MTL5018AC Installation Diagram



1 **SUPPLEMENTARY TYPE EXAMINATION CERTIFICATE**

2 **Intrinsically safe System Intended for use in Potentially Explosive Atmospheres**

3 Supplementary Type Examination Certificate Number: **Baseefa02Y0156/1**

4 Equipment: **MTL5018AC Two channel switch/proximity detector interface system**

5 Manufacturer: **MTL Instruments Pvt. Limited**

6 Address: **Sholinganallur, Chennai-600 119, India**

7 This supplementary certificate extends Type Examination Certificate No. Baseefa02Y0156 to apply only to the design of the specified intrinsically safe system, and not to specific items of equipment therein, 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. 2372

Project File No. 02/0330

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Schedule

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Certificate Number Baseefa02Y0156/1

15 Description of the variation to the Equipment

Variation 1.1

To permit a minor drawing change.

16 Report Number

None

17 Special Conditions for Safe Use

None

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
MTL/SCI50-018-01/1	1	2	06.03	MTL5018AC Installation Diagram