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: **Baseefa03ATEX0034**

4 Equipment or Protective System: **MTL3052 Digital Isolator**

5 Manufacturer: **MTL INSTRUMENTS PVT LIMITED**

6 Address: **Sholinganallur, Chennai (Madras) - 600 119, India**

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. **02(C)0458**

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

EN 50014:1997 + Amendments 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 :

Ⓔx II (1) G [EEx ia] IIC (-20°C ≤ Ta ≤ 60°C)

Baseefa (2001) Ltd. Customer Reference No. **2372** Project File No. **02/0458**

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 web site 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 Baseefa03ATEX0034**

15 **Description of Equipment or Protective System**

The MTL3052 Digital Isolator is designed to restrict the transfer of energy from a non-intrinsically safe power source to an intrinsically safe circuit by the limitation of voltage and current.
The apparatus comprises a printed circuit board (PCB) on which all the electronic components are mounted with the exception of the power supply fuse. The PCB and fuse are mounted inside a plastic enclosure which gives a degree of protection of not less than IP20.

Terminals 2 and 3:
U_m = 250V rms

Terminals 5 and 6:
U_o = 15V
I_o = 150mA
P_o = 0.563W

Terminals 7 and 8:
U_o = 15V
I_o = 83.3mA
P_o = 0.32W

Load parameters:

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

Terminals 5 and 6:

Group	Capacitance (μF)	Inductance (mH) **OR**	L/R Ratio (μH/Ω)
IIC	0.58	1.65	65
IIB	3.55	4.95	195
IIA	14	13.2	520

Terminals 7 and 8:

Group	Capacitance (μF)	Inductance (mH) **OR**	L/R Ratio (μH/Ω)
IIC	0.58	5.2	109
IIB	3.55	15.6	327
IIA	14	41.6	872

16 **Report Number**

02(C)0458

17 **Special Conditions for Safe Use**

None

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
CI3052-1	1/6	2	01.03	Contents Sheet
CI3052-1	2/6	2	01.03	Parts List
CI3052-1	3/6	2	01.03	Circuit Diagram
CI3052-1	4/6	2	01.03	PCB Layout
CI3052-1	5/6	2	01.03	General Assembly and Label
CI3052-1	6/6	2	01.03	Terminal Assembly and Fuse Holder