IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx BAS 04.0009 issue No.:2	Certificate history: Issue No. 2 (2009-5-6) Issue No. 1 (2005-4-20)
Status:	**Current**	
Date of Issue:	**2009-05-06**	Page 1 of 5

Applicant: **Measurement Technology Limited**
Great Marlings
Butterfield
Luton
Bedfordshire
LU2 8DL
United Kingdom

Electrical Apparatus: **MTL4073 Temperature Converter**
Optional accessory:

Type of Protection: **Intrinsic safety**

Marking: **IECEx BAS 04.0009**
[Ex ia] IIC
-20°C ≤ Ta ≤ +60°C
Um = 250V

Approved for issue on behalf of the IECEx Certification Body: pp R S Sinclair

Position: Managing Director

Signature:
(for printed version)

Date: 19/5/09

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Baseefa
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom

Baseefa

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Manufacturer:

Measurement Technology Limited
Great Marlings
Butterfield
Luton
Bedfordshire
LU2 8DL
United Kingdom

Manufacturing location(s):

MTL Instruments PVT Ltd
No 3 Old Mahabalipuram
Road
Sholinganallur
Chennai
India

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2001 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

IECEx ATR:
UK/BAS/03/0917/6

File Reference:
03/0917

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

An MTL4073 Temperature Converter is designed to restrict the transfer of energy from unspecified non-hazardous area apparatus to either thermocouples or RTDs in the hazardous area by the limitation of voltage and current. A transformer and an opto-isolator provide galvanic isolation between the hazardous and non-hazardous area circuitry.

The apparatus comprises an isolating transformer, an opto-isolator, a detection circuit protected by zener diode / resistance combinations to provide voltage and current limitation, together with other electronic components are mounted on a printed circuit board and housed in a moulded plastic enclosure.
Polarised plugs and sockets are provided for the hazardous and non-hazardous connections. A connector is provided for the connection of a suitably certified data terminal for programming the apparatus.

For electrical data see Additional Information.

CONDITIONS OF CERTIFICATION: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 2.1

This document permits existing information (for example on Schedule Drawings) to be replaced by the revised certificate holders address. No other changes may be made to the certified design.

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Additional information:

CON3, pins 7 to 14

U_m = 250V
The circuit connected to the non-hazardous area terminals CON3 is designed to operate from a dc supply voltage of up to 35V.

CON1, pins 1 to

U_o = 21V (for capacitive purposes only)
U_o = 6.6V (long term)
I_o = 76mA
P_o = 0.13W
C_i = 0
L_i = 0

CON2

U_o = 7.2V
I_o = 14.6mA
P_o = 26mW
C_i = 0
L_i = 0

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

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
CON1, pins 1 to 6				
IIC	0.188	6.42		286
IIB	1.270	25.67		1057
IIA	4.780	53.02		2228
CON2				
IIC	13.5	153		1295
IIB	240	591		2028
IIA	1000	1000		2028