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TYPE EXAMINATION CERTIFICATE

Equipment Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC

Type Examination Certificate Number : **BAS99ATEX3284X**

Equipment: **TDY PC PROG. TEMPERATURE TRANSMITTER MODEL TDY-NE AND
SDY PC PROG. SIGNAL ISOLATOR/CONVERTER MODEL SBY-NE**

Manufacturer: **MOORE INDUSTRIES INC**

Address: **16650 Schoenborn Street, Sepulveda, California 91343, USA**

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

The Electrical Equipment Certification Service certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment of Category 3 intended for use in potentially explosive atmospheres given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential Report N°

99(C)0919 dated 2 November 2000

Compliance with the Essential Health and Safety Requirements has been assessed by reference to:

EN 50021: 1999

except in respect of those requirements listed at item 18 of the Schedule.

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

This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

The marking of the equipment shall include the following:-

 **H 3 G** **EEEx nA II T4 (-40°C ≤ T_a ≤ +60°C)**

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

File No: **EECS 0730/02/017**

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.



Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN, United Kingdom
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I M CLEARE
DIRECTOR
17 November 2000



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Description of Equipment

The TDY PC Prog. Temperature Transmitter Model TDY-NE and SDY PC Prog. Signal Isolator/Converter Model SDY-NE are designed to convert a measurement signal from either a thermocouple, a mV source, an RTD or a potentiometer into a 4-20 mA current signal. The SDY-NE is identical to the TDY-NE with the exception that it can accommodate sensors having a different level of sensitivity.

The electronic circuitry consists of four printed circuit boards and a liquid crystal display (LCD) unit in a metal case fitted with a plastic lid, having 2 non-sparking supply terminals and 4 non-sparking signal terminals protruding from the lid, all contained within a Type BH Housing, Certificate No BAS99ATEX2289U.

External electrical connections are made within the outer enclosure and cable entry is via one of two tapped holes. A suitable cable gland must be used to maintain the ingress protection and to provide cable restraint. Any unused entry must be plugged to maintain the ingress protection.

The apparatus is fitted with a 3-pin connector labelled COM for programming purposes. This connector must only be used in a non-hazardous area.

The rated input voltage is 30V d.c. (Terminals PS+ and PS-).

Connection parameters for Terminals 1, 2, 3 and 4

Maximum output voltage = 6.51V

Maximum output current = 85mA

Maximum output power = 140mW

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Special Conditions for Safe Use

1.

This apparatus does not comply with the creepage and clearance requirements specified in Table 7 of the Standard and is not provided with internal means for ensuring that the rated voltage is not exceeded in service.

When installed this apparatus MUST be provided with an external voltage limiting device which will prevent the rated voltage being exceeded, by transient disturbances of more than 40%.

Acceptable means of achieving this are:-

- a. an adequately rated zener diode.
- b. an adequately rated semiconductor voltage regulator.
- c. a battery.

2.

The 3-pin connector labelled COM must only be used in a non-hazardous area.



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Essential Health and Safety Requirements

ESSENTIAL HEALTH & SAFETY REQUIREMENTS not covered by Standards listed at (9)		
Clause	Subject	Compliance
1.1.3	Changes in characteristics of materials and combinations thereof	Report 99(C)0919 Clause 5.1.1.3
1.2.2	Components for incorporation or replacement	Report 99(C)0919 Clause 5.1.2.2
1.2.4	Dust deposits	Report 99(C)0919 Clause 5.1.2.4
1.2.7	Protection against other hazards	Report 99(C)0919 Clause 5.1.2.7
1.4.2	Withstanding attack by aggressive substances	Report 99(C)0919 Clause 5.1.4.2

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DRAWINGS

Number	Issue	Date	Description
*205-217-00	B	1/99	General assembly, TDY
*235-440-00 Sheet 1 of 4	B	6/99	Circuit diagram, PC1 TDY
*235-440-00 Sheet 2 of 4	B	6/99	Circuit diagram, PC2 TDY
*235-440-00 Sheet 3 of 4	B	6/99	Circuit diagram, PC3 TDY
*235-440-00 Sheet 4 of 4	B	6/99	Circuit diagram, PC4 TDY
*235-840-00	C	12 JAN 2000	Parts list, PC1 TDY
*235-841-00 Sheets 1 to 3	C1	23 OCT 2000	Parts list, PC2 TDY
*235-842-00	B	12 JAN 2000	Parts list, PC3 TDY
*235-843-00	B	12 JAN 2000	Parts list, PC4 TDY
*235-844-00	B	12 JAN 2000	Parts list, FRT PNL TDY
*235-544-00	B	10/99	Assembly, Front panel TDY
*235-540-00 Sheets 1 and 2	C	10/99	Assembly, PC1 TDY
*235-541-00	C	10/99	Assembly, PC2 TDY
*235-542-00	B	10/99	Assembly, PC3 TDY
*235-543-00	B	10/99	Assembly, PC4 TDY
*506-510-01 Sheets 1 and 2	A1	01/00	PCB details, PC1 TDY
*506-511-01 Sheets 1 and 2	D	3/00	PCB details, PC2 TDY
*506-512-01 Sheets 1 and 2	A2	01/00	PCB details, PC3 TDY
*506-513-01 Sheets 1 and 2	A1	01/00	PCB details, PC4 TDY
*506-510-02	A	30-MAR-2000	PCB Artwork, PC1 primary side
*506-510-02	A	30-MAR-2000	PCB Artwork, PC1 secondary side
*506-511-02	D	28-MAR-2000	PCB Artwork, PC2 primary side
*506-511-02	D	28-MAR-2000	PCB Artwork, PC2 inner layer 1
*506-511-02	C	28-MAR-2000	PCB Artwork, PC2 inner layer 2
*506-511-02	D	28-MAR-2000	PCB Artwork, PC2 secondary side
*506-512-02	A	30-MAR-2000	PCB Artwork, PC3 primary side



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TYPE EXAMINATION CERTIFICATE N° BAS99ATEX3284X

Number	Issue	Date	Description
*506-512-02	A	30-MAR-2000	PCB Artwork, PC3 secondary side
*506-513-02	A	30-MAR-2000	PCB Artwork, PC4 primary side
*506-513-02	A	30-MAR-2000	PCB Artwork, PC4 secondary side
*802-810-73	B	08/00	Transformer, T201
*800-801-01 Sheet 4 of 4	P	11 NOV 98	PCB specifications
*205-245-00	A	10/99	General assembly, SDY
*235-470-00 Sheet 1 of 4	A	10/99	Circuit diagram, PC1 SDY
*235-470-00 Sheet 2 of 4	A	10/99	Circuit diagram, PC2 SDY
*235-470-00 Sheet 3 of 4	A	10/99	Circuit diagram, PC3 SDY
*235-470-00 Sheet 4 of 4	A	10/99	Circuit diagram, PC4 SDY
*235-870-00	A	01 NOV 1999	Parts list, PC1 SDY
*235-871-00 Sheets 1 to 3	A	23 OCT 2000	Parts list, PC2 SDY
*235-872-00	A	01 NOV 1999	Parts list, PC3 SDY
*235-873-00	A	01 NOV 1999	Parts list, PC4 SDY
*235-874-00	A	01 NOV 1999	Parts list, FRT PNL SDY
*235-574-00	A	10/99	Assembly, Front panel SDY
*235-570-00 Sheets 1 and 2	A	10/99	Assembly, PC1 SDY
*235-571-00	A	10/99	Assembly, PC2 SDY
*235-572-00	A	10/99	Assembly, PC3 SDY
*235-573-00	A	10/99	Assembly, PC4 SDY
205-251/262-00	D	08/00	Mechanical assembly, BH Housing Units
200-251-1858	B	10/00	TDY-NE and SDY-NE Label details
200-251-1859	B	10/00	BH Type N labels, TDY-NE and SDY-NE

* These drawings are common to and held with Certificate No. BAS 99 ATEX 2282X.

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BASEEFA List Keywords
2TRANSMI