

CERTIFICATE OF CONFORMITY



- HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- Certificate No:** FM16US0172X-3
- Equipment:** Model PSD PC Programmable Loop Display and Model SLD Safety Loop Display
(Type Reference and Name)
- Name of Listing Company:** Moore Industries International Inc
- Address of Listing Company:** 16650 Schoenborn Street
North Hills, California 91343
USA
- The examination and test results are recorded in confidential report number:
3005603 dated 27th December 1999
- FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:
FM Class 3600:2011, FM Class 3610:2010, FM Class 3611:2004, FM Class 3810:2005,
- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
- This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

Certificate issued by:

J. E. Marquedant
Manager, Electrical Systems

11 July 2016

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

SCHEDULE



US Certificate Of Conformity No: FM16US0172X-3

10. Equipment Ratings:

PSD: Intrinsically Safe (Entity) for use in Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; Temperature Class T4 Ta = 85°C; in accordance with Control Document No. 100-100-55; Nonincendive for use in Class I, Division 2, Groups A, B, C and D; Temperature Class T4 Ta = 85°C; Hazardous (Classified) Locations.

SLD: Nonincendive for use in Class I, Division 2, Groups A, B, C and D; Temperature Class T4 Ta = 85°C; Hazardous (Classified) Locations.

11. The marking of the equipment shall include:

Class I, II, III Division 1, Groups A, B, C, D, E, F and G T4 Ta = +85°C – 100-100-55; Entity

Class I, Division 2, Groups A, B, C, D T4 Ta = +85°C

12. **Description of Equipment:**

General - The Model PSD PC Programmable Loop Display and Model SLD Safety Loop Display are used for measuring 4-20 milliamp signals with high accuracy.

Construction - The Model PSD PC Programmable Loop Display and Model SLD Safety Loop Display consists of three PC boards inside of a tool-secured aluminium housing. Terminals are supplied and appropriately marked for power and other wiring connections. The Communication port on the front of the enclosure is for use only in the non-hazardous location.

Ratings - The Model PSD PC Programmable Loop Display and Model SLD Safety Loop Display operate at a maximum voltage of 30V. The Model PSD Programmable Loop Display operates at the following Entity Parameters:

Vmax = 30V, Imax = 110 mA, Pmax = 650 mW, Ci = 0 nF, Li = 0 mH

The equipment is rated for use in an ambient temperature range of -40°C to +85°C.

PSD/4-20mA/PRG/2.3VLP/a [b]. PC Programmable Loop Display.

IS / I,II,III / 1 / ABCDEFG / T4 Ta = 85°C - 100-100-55; Entity

NI / I / 2 / ABCD / T4 Ta = 85°C;

Entity Parameters:

VMax = 30 V, IMax = 110 mA, PMax = 650 mW, Ci = 0 nF, Li = 0 mH.

a = -ISF (Intrinsically Safe and Nonincendive) or Blank (Nonincendive).

b = Housing D-Box, DN, BH, HP, FL, FLD, HPDY, TW.

SLD/4-20mA/PRG/2.3VLP/ [a]. SAFETY Loop Display.

NI / I / 2 / ABCD / T4 Ta = 85°C;

a = Housing D-Box, DN, BH, HP, FL, FLD, HPDY, TW.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

SCHEDULE



US Certificate Of Conformity No: FM16US0172X-3

13. Specific Conditions of Use:

1. The Model PSD or Model SLD Display shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.
2. No connections shall be made to the communications "COM" port in Hazardous (Classified) Locations.
3. Maximum operating parameters of the "COM" port for use in Non-Hazardous areas shall not exceed 3.0V, 300 μ A and 240 μ W.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
27 th December 1999	Original Issue.
23 rd February 2007	<u>Supplement 1:</u> Report Reference: – 070212 dated 23 rd February 2007. Description of the Change: Update of several drawings including the control drawing; entity parameter Pmax was increased to 650 mW.
9 th March 2012	<u>Supplement 2:</u> Report Reference: – 3043566 dated 9 th March 2012 Description of the Change: Product modifications and re-certification to FM3610:2010.
11 th July 2016	<u>Supplement 3:</u> Report Reference: – RR205497 dated 11 th July 2016 Description of the Change: Add a new product Model SLD, based upon similarity to the existing product Model PSD.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE