

# Certificate of Compliance

**Certificate:** 1300421 (LR 28549)

**Master Contract:** 152564

**Project:** 1360795 (Edition 2)


**Date Issued:** July 10, 2003

**Issued to:** **Moore Industries-International**  
16650 Schoenborn Street  
Sepulveda, CA 91343  
USA

*The products listed below are eligible to bear the CSA Mark shown*



**Issued by:**   
Patrick Conway C.E.T.  
Certification Specialist

**Authorized by:**   
Patricia Pasemko  
Operations Manager

**CLASS**

2258-04 PROCESS CONTROL EQUIPMENT Intrinsically Safe, Entity – For Hazardous Locations  
2258-02 PROCESS CONTROL EQUIPMENT For Hazardous Locations  
2252-01 PROCESS CONTROL EQUIPMENT

**PRODUCTS**

*Class I Divisions 1 & 2 Groups A, B, C and D*

Model FDY-HP is an Intrinsically Safe & Non-Incendive PC programmable Frequency to DC Transmitter with Display which converts the input signal to a proportional 4-20mA output for direct interface with a readout instrument.

Ratings listed below:

- Class I Division 1:  $U_i=30\text{Vdc}$ ,  $I_i=110\text{mA}$ ; Temperature Code T4. Maximum ambient temperature: 60°C  
Note: Installation into Class I Division 1 locations requires the use of a CSA Certified Intrinsic Safety Barrier with the following Entity Parameters as per Moore Industries drawing 100-100-64:

$V_{\text{max}}$ or $U_i = 30\text{ Vdc}$	$V_{\text{oc}}$ or $U_o = 5.355\text{ Vdc}$	$C_i$ or $C_o = 18\ \eta\text{F}$
$I_{\text{max}}$ or $I_i = 110\text{mA}$	$I_{\text{sc}}$ or $I_t = 5.15\ \text{mA}$	$L_i$ or $L_o = 0\ \mu\text{H}$
$P_{\text{max}}$ or $P_i = 825\ \text{mW}$	$P_t$ or $P_o = 6.9\ \text{mW}$	$C_a = 65\ \mu\text{F}$
$L_a = 850\ \text{mH}$		
- Class I Division 2: 12- 42Vdc, Temperature code T4; Maximum ambient temperature: 60°C



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*Notes:*

- To be connected to a CSA certified Separated Extra Low Voltage (SELV) power source as per Annex H of C22.2 No. 1010.1-92
- Due to the presence of exposed wiring terminals, model FDY-HP is to be mounted in Moore Industries type BH or SB enclosure or a CSA certified equivalent.

*Class II Division 1 Groups E,F, and G; Class II Division 2 Groups F and G*

Model FDY-HP is an Intrinsically Safe & Non-Incendive PC programmable Frequency to DC Transmitter with Display which converts the input signal to a proportional 4-20mA output for direct interface with a readout instrument.

Ratings listed below:

- Class II Division 1:  $U_i=30\text{Vdc}$ ,  $I_i=110\text{mA}$ ; Temperature Code T4. Maximum ambient temperature:  $60^\circ\text{C}$   
Note: Installation into Class II Division 1 locations requires the use of a CSA Certified Intrinsic Safety Barrier with the following Entity Parameters as per Moore Industries drawing 100-100-64:

$V_{\text{max}}$ or $U_i = 30\text{ Vdc}$	$V_{\text{oc}}$ or $U_o = 5.355\text{ Vdc}$	$C_i$ or $C_o = 18\text{ }\mu\text{F}$
$I_{\text{max}}$ or $I_i = 110\text{mA}$	$I_{\text{sc}}$ or $I_t = 5.15\text{ mA}$	$L_i$ or $L_o = 0\text{ }\mu\text{H}$
$P_{\text{max}}$ or $P_i = 825\text{ mW}$	$P_t$ or $P_o = 6.9\text{ mW}$	$C_a = 65\text{ }\mu\text{F}$
$L_a = 850\text{mH}$		
- Class II Division 2: 12- 42Vdc, T4 @  $60^\circ\text{C}$ ;; Maximum ambient temperature:  $60^\circ\text{C}$

*Notes:*

- To be connected to a CSA certified Separated Extra Low Voltage (SELV) power source as per Annex H of C22.2 No. 1010.1-92
- Due to the presence of exposed wiring terminals, and to meet the intrinsic safety requirement for Class II equipment, model FDY-HP must be installed in Moore Industries type BH or SB enclosure or a CSA certified Class II enclosure.

*Class III Divisions 1 and 2*

Model FDY-HP is an Intrinsically Safe & Non-Incendive PC programmable Frequency to DC Transmitter with Display which converts the input signal to a proportional 4-20mA output for direct interface with a readout instrument.

Ratings listed below:

- Class I Division 1:  $U_i=30\text{Vdc}$ ,  $I_i=110\text{mA}$ . Temperature Code T4; Maximum ambient temperature:  $60^\circ\text{C}$  T4  
Note: Installation into Class III Division 1 locations requires the use of a CSA Certified Intrinsic Safety Barrier with the following Entity Parameters as per Moore Industries drawing 100-100-64:

$V_{\text{max}}$ or $U_i = 30\text{ Vdc}$	$V_{\text{oc}}$ or $U_o = 5.355\text{ Vdc}$	$C_i$ or $C_o = 18\text{ }\mu\text{F}$
$I_{\text{max}}$ or $I_i = 110\text{mA}$	$I_{\text{sc}}$ or $I_t = 5.15\text{ mA}$	$L_i$ or $L_o = 0\text{ }\mu\text{H}$
$P_{\text{max}}$ or $P_i = 825\text{ mW}$	$P_t$ or $P_o = 6.9\text{ mW}$	$C_a = 65\text{ }\mu\text{F}$
$L_a = 850\text{mH}$		
- Class III Division 2: 12- 42Vdc, Temperature code T4;; Maximum ambient temperature:  $60^\circ\text{C}$

*Notes:*

- To be connected to a CSA certified Separated Extra Low Voltage (SELV) power source as per Annex H of C22.2 No. 1010.1-92
- Due to the presence of exposed wiring terminals, and to meet the intrinsic safety requirement for Class III equipment, model FDY-HP must be installed in Moore Industries type BH or SB enclosure or a CSA certified Type 5 enclosure.



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### *Ordinary Locations*

Model FDY-HP is a PC programmable Frequency to DC Transmitter with Display which converts the input signal to a proportional 4-20mA output for direct interface with a readout instrument. Rated at 12-42Vdc for use in a maximum ambient temperature of 60°C.

#### *Notes:*

- To be connected to a CSA certified Separated Extra Low Voltage (SELV) power source as per Annex H of C22.2 No. 1010.1-92
- For indoor use only unless mounted in Moore Industries "D-Box" or equivalent CSA certified enclosure.

### **APPLICABLE REQUIREMENTS**

C22.1 - 02	- Canadian Electrical Code: Part 1 - Safety Standard for Electrical Installations
C22.2 No. 0-M1991	- General Requirements – Canadian Electrical Code Part I
C22.2 No. 0.4-M1982	- Bonding and Grounding of Electrical Equipment (Protective Grounding)
C22.2 No. 25-1966	- Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
C22.2 No. 157-92	- Intrinsically Safe and Non-Incendive Equipment for use in Hazardous locations
C22.2 No. 213-M1987	- Non Incendive Electrical Equipment for use in Class I Division 2 Hazardous Locations
C22.2 No. 1010.1-92	- Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory use. Part 1: General Requirements



## *Supplement to Certificate of Compliance*

**Certificate:** 1300421 (LR 28549)

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
1300421	March 28, 2002	Original Certification of Model FDY-HP.
1360795	July 10, 2003,	Update to 1300421 to include corrected component values from FM report.