

Certificate of Compliance

Certificate: 1797320

Master Contract: 190113

Project: 2086284

Date Issued: 2008/10/07

Issued to: ABB Automation Products GmbH

Borsigstrasse 2
Alzenau, 63755
Germany
Attention: Harald Mueller

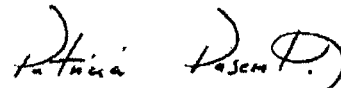
The products listed below are eligible to bear the CSA Mark shown



Issued by: Ron Wildish



Authorized by: Patricia Pasemko, Operations
Manager



PRODUCTS

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non -
Incendive Systems - For Hazardous Locations

Class I, Div 2, Groups A, B, C and D:

Ex nL IIC T4:

Model HMI-Ex, Type A, Type AS, Type B and Type BS LCD Indicators; input rated 3 Vdc; nonincendive (terminal "JP1") with Entity input parameters of: $V_{max}/U_i = 9V$, $I_{max}/I_i = 65.2mA$, $P_{max}/P_i = 101 mW$, $C_i = 0.4 \mu F$, $L_i = 0 \mu H$; when installed per installation Dwg. 214750; Temp. Code T4 @ Max Ambient 85 Deg C;



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T-Code T6 @ Max Ambient 60 Deg C.

Note: Model HMI-Ex, Type A , Type AS, Type B and Type BS are open type units Certified as a component for use only in other equipment where the suitability of the combination is to be determined by the authority having jurisdiction.

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations

Class I, Div. 1 & 2, Groups A, B, C and D:

Ex ia IIC T4:

Model HMI-Ex, Type A, Type AS, Type B and Type BS LCD Indicators; input rated 3 Vdc; intrinsically safe (terminal "JP1") with Entity input parameters of: $V_{max}/U_i = 9V$, $I_{max}/I_i = 65.2mA$, $P_{max}/P_i = 101 mW$, $C_i = 0.4 \mu F$, $L_i = 0 \mu H$; when installed per installation Dwg. 213749; T-Code T4 @ Max Ambient 85 Deg C; T-Code T6 @ Max Ambient 56 Deg C.

Note: Model HMI-Ex, Type A , Type AS, Type B and Type BS are open type units Certified as a component for use only in other equipment where the suitability of the combination is to be determined by the authority having jurisdiction.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91 - General Requirements – Canadian Electrical Code, Part II

C22.2 No. 142-M1987 - Process Control Equipment

CAN/CSA-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

CAN/CSA-C22.2 No. 60079-0:07 - Electrical apparatus for explosive gas atmospheres - Part 0: General Requirements

CAN/CSA-E60079-11:02 - Electrical apparatus for explosive gas atmospheres -Part 11: Intrinsic Safety "i"

CAN/CSA-E60079-15:02 - Electrical apparatus for explosive gas atmospheres - Part 15: Type of Protection "n"



Supplement to Certificate of Compliance

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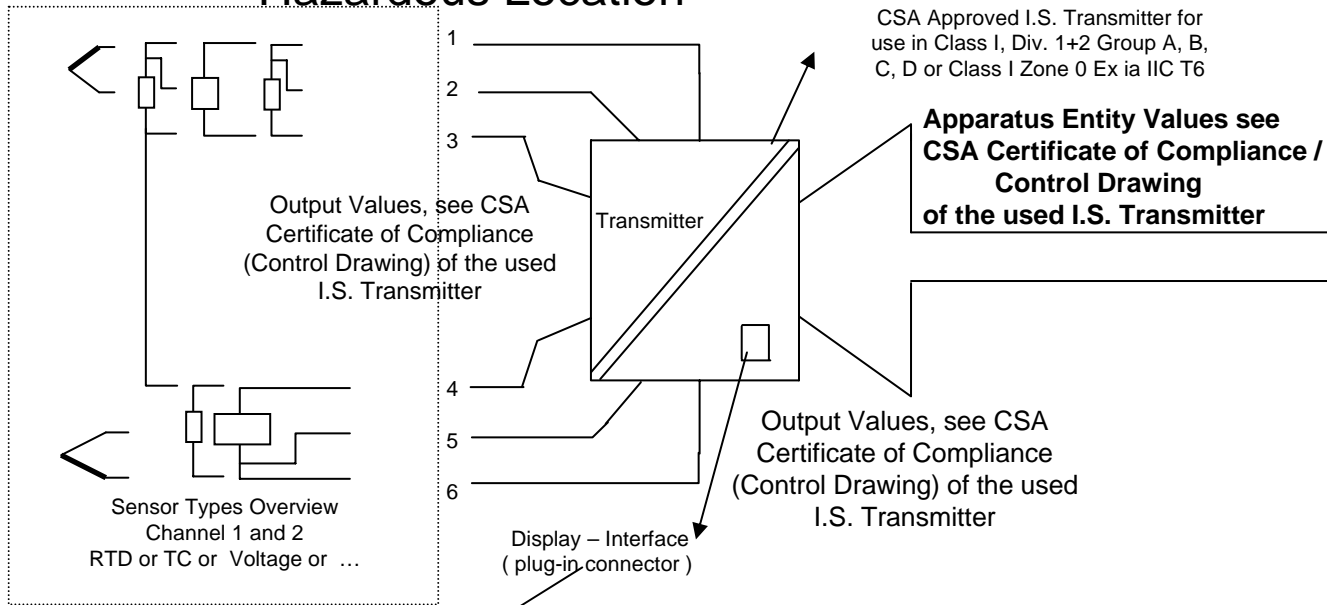
Master Contract: 190113

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

Product Certification History

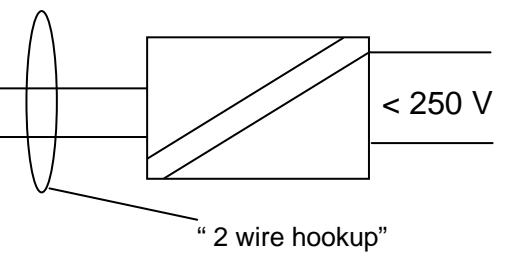
Project	Date	Description
2086284	2008/10/07	Update to cover minor modifications to the HMI-Ex, Type A, and the addition of models HMI-Ex, Type AS, Type B and Type BS.
1797320	2006/08/10	Model HMI-Ex, Type A LCD Indicator for Hazardous Locations

Hazardous Location

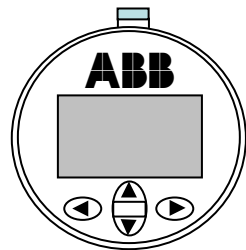


Non – Hazardous Location

Barrier Galvanic Isolator



Warning:
For intrinsically safe Applications, equipment should not use or generate voltage which exceeds 250V RMS.



HMI-Ex Type A, AS

HMI-EX Type B, BS

HMI / Display Maximum Input Values

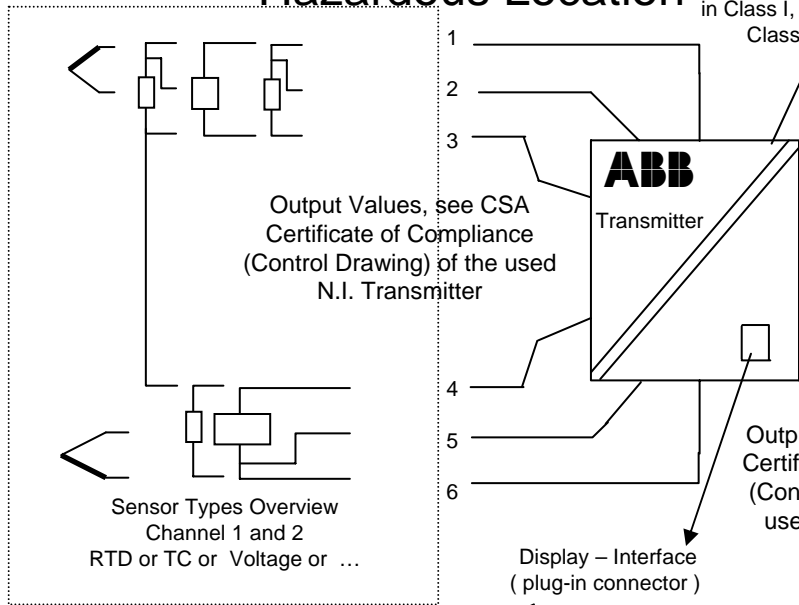
I.S. Class I Div 1 and Div 2; Group: A,B,C,D or I.S. Class I Zone 0 Ex ia IIC T*
*Temp.Ident T6 Tamb 56°C, T4 Tamb 85°C
Ui / Vmax = 9 V; li / lmax < 65.2 mA; Pi = 101 mW
Ci < 0,4µF; Li = 0
Terminals: 6 PIN Connector

HMI-Ex Type A, AS, B, BS (Display), is an open type certified as a component for use only in other equipment where the suitability of the combination is to be determined by the authority having jurisdiction.

Warning:
Substitution Of Components May Impair Intrinsic Safety

				Title:			Scale:				
				HMI-Ex Type A, AS, B, BS Intrinsic Safety Control Drawing (CSA)			-----				
				Approv.	13.08.08	Zeiger					
				Date		Name					
1.03	AS,B,BS	13.08.08	Müller	ABB Automation Products				Drawing / Part No.:	Page : of		
1.02	CSA input	08.08.06	Zeiger					SAP_214749		1 / 1	
1.01	CSA input	05.07.06	Zeiger								
1.00	Release	21.03.06	Zeiger								
Rev.	Desc.	Date	Name	Replacement of: -----							

Hazardous Location



CSA Approved N.I.. Transmitter for use in Class I, Div. 2 Groups A, B, C, D or Class I Zone 2 Ex nL IIC T*

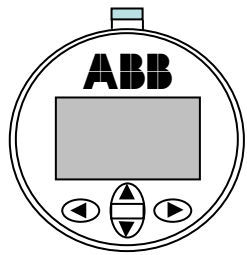
Apparatus Input Values see CSA Certificate of Compliance / Control Drawing of the used N.I. Transmitter

Output Values, see CSA Certificate of Compliance (Control Drawing) of the used N.I. Transmitter

Output Values, see CSA Certificate of Compliance (Control Drawing) of the used N.I. Transmitter

Sensor Types Overview Channel 1 and 2 RTD or TC or Voltage or ...

Display - Interface (plug-in connector)



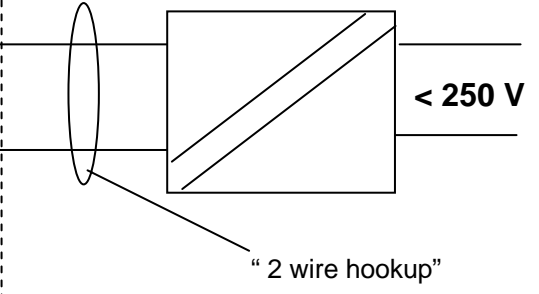
HMI / Display Maximum Input Values
 N.I. Class I Div 2; Group: A,B,C,D or Ex nL IIC T*, Class I Zone 2
 *Temp.Ident T6 Tamb 60°C, T4 Tamb 85°C
 Ui / Vmax = 9 V; li / lmax < 65.2 mA; Pi = 101 mW
 Ci < 0,4µF; Li = 0
 Terminals: 6 PIN Connector

HMI-Ex Type A, AS, HMI-EX Type B, BS

HMI-Ex Type A, AS, B, BS (Display), is an open type certified as a component for use only in other equipment where the suitability of the combination is to be determined by the authority having jurisdiction.

Non - Hazardous Location

Associated Apparatus or Power Supply



Warning: Substitution of components may impair suitability for Class 1 Division 2.

				Title:			Scale:				
				HMI-Ex Type A, AS, B, BS Non-Incdivice Control Drawing (CSA)			-----				
				Approv.	13.08.08	Zeiger					
					Date	Name					
1.03	AS,B,BS	13.08.08	Müller	ABB Automation Products				Drawing / Part No.:	Page : of		
1.02	CSA input	08.08.06	Zeiger					SAP_ 214750		1 / 1	
1.01	CSA input	05.07.06	Zeiger								
1.00	Release	21.03.06	Zeiger								
Rev.	Desc.	Date	Name					Replacement of: -----			