



Certificate of Compliance

Certificate: 2174234

Master Contract: 151079

Project: 70118992

Date Issued: 2017-02-28

Issued to: Endress + Hauser GmbH + Co. KG
Hauptstrasse 1
Maulburg, Baden-Württemberg 79690
GERMANY
Attention: Steve Czaniecki

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Anil Sodhi
Anil Sodhi

PRODUCTS

CLASS 2258 02 - **PROCESS CONTROL EQUIPMENT-For Hazardous Locations**
CLASS 2258 82 - **PROCESS CONTROL EQUIPMENT-For Hazardous Locations - Certified to US Standards**

Class I, Division 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G; Class III:

- Deltabar M, Type PMD55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; temperature code, T6; ambient temperature range -50C to +75 °C; MWP 2320 psi (160 bar); Factory sealed; Dual Seal device.
- Cerabar M, Type PMP51 and PMP55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; temperature code, T6; ambient temperature range -50C to +75 °C; MWP 5802 psi (400 bar); Factory sealed; Single Seal device.

Class II, Division 1, Groups E, F and G; Class III:

- Deltabar M, Type PMD55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; temperature code, T6; ambient temperature range -50C to +70 °C; MWP 2320 psi (160 bar); Dual Seal device.



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- Cerabar M, Type PMP51 and PMP55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; temperature code, T6; ambient temperature range -50C to +70 °C; MWP 5802 psi (400 bar); Single Seal device.

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

- Deltabar M, Type PMD55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; temperature code, T6 (Ta = 40 °C), T4 (Ta = 70 °C); ambient temperature range -50C to +70°C; MWP 2320 psi (160 bar); Dual Seal device.
- Cerabar M, Type PMC51, PMP51 and PMP55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; temperature code, T6 (Ta = 40 °C), T4 (Ta = 70 °C); ambient temperature range -50C to +70 °C; MWP 5802 psi (400 bar), PMC51 580 psi (40 bar); Single Seal device.
- Deltapilot M, Type FMB50 and FMB51, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; temperature code, T6 (Ta = 40 °C), T4 (Ta = 70 °C); ambient temperature range -50C to +70C; MWP 145 psi (10 bar); FMB50 is a Single Seal Device.

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations
CLASS 2258 83 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations – Certified to U.S. Standards

Ex ia IIC:

Class I, Zone 0, AEx ia IIC;

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:

- Deltabar M, Types PMD55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; intrinsically safe when connected per installation drawing 960009065; temperature code T6 (Ta = 40 °C), T4 (Ta = 70 °C); MWP 2320 psi (160 bar); Dual Seal device.
- Cerabar M, Types PMC51, PMP51, PMP55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; intrinsically safe when connected per installation drawing 960009066; temperature code T6 (Ta = 40 °C), T4 (Ta = 70 °C); MWP 5802 psi (400 bar), PMC51 580 psi (40 bar) ; Single Seal device.
- Deltapilot M, Type FMB50, FMB51, FMB52 and FMB53, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; intrinsically safe when connected per installation drawing 960009067; temperature code T6 (Ta = 40 °C), T4 (Ta = 70 °C); MWP 145 psi (10 bar) ; FMB50 is a Single Seal Device.



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CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations – Certified to U.S. Standards

Ex ia IIC:

Class I, Zone 0, AEx ia IIC;

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:

- Deltabar M, Types PMD55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; 4-20mA version intrinsically safe when connected per installation drawing 960009065 or 960009643, with entity parameters: $V_{max}(U_i) = 30 \text{ Vdc}$, $I_{max}(I_i) = 300 \text{ mA}$, $P_i = 1 \text{ W}$, $C_i = 10 \text{ nF}$, $L_i = 0$; PA/FF version intrinsically safe when connected per installation drawing 960014219 or 960014222, with entity parameters $V_{max}(U_i) = 24 \text{ Vdc}$, $I_{max}(I_i) = 250 \text{ mA}$, $P_i = 1.2 \text{ W}$, $C_i = 5 \text{ nF}$, $L_i = 10 \mu\text{H}$ and FISCO parameters $V_{max}(U_i) = 17.5 \text{ Vdc}$, $I_{max}(I_i) = 500 \text{ mA}$, $P_i = 5.5 \text{ W}$, $C_i = 5 \text{ nF}$, $L_i = 10 \mu\text{H}$; temperature code T6 ($T_a = 40 \text{ }^\circ\text{C}$), T4 ($T_a = 70 \text{ }^\circ\text{C}$ MWP 2320 psi (160 bar); Dual Seal device.

- Cerabar M, Types PMC51, PMP51, PMP55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; 4-20mA version intrinsically safe when connected per installation drawing 960009066 or 96009644, with entity parameters: $V_{max}(U_i) = 30 \text{ Vdc}$, $I_{max}(I_i) = 300 \text{ mA}$, $P_i = 1 \text{ W}$, $C_i = 10 \text{ nF}$, $L_i = 0$; PA/FF version intrinsically safe when connected per installation drawing 960014220 or 960014223, with entity parameters $V_{max}(U_i) = 24 \text{ Vdc}$, $I_{max}(I_i) = 250 \text{ mA}$, $P_i = 1.2 \text{ W}$, $C_i = 5 \text{ nF}$, $L_i = 10 \mu\text{H}$ and FISCO parameters $V_{max}(U_i) = 17.5 \text{ Vdc}$, $I_{max}(I_i) = 500 \text{ mA}$, $P_i = 5.5 \text{ W}$, $C_i = 5 \text{ nF}$, $L_i = 10 \mu\text{H}$; temperature code T6 ($T_a = 40 \text{ }^\circ\text{C}$), T4 ($T_a = 70 \text{ }^\circ\text{C}$); MWP 5802 psi (400 bar), PMC51 580 psi (40 bar); Single Seal.

- Deltapilot M, Type FMB50, FMB51, FMB52 and FMB53, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; 4-20mA version intrinsically safe when connected per installation drawing 960009067, with entity parameters: $V_{max}(U_i) = 30 \text{ Vdc}$, $I_{max}(I_i) = 300 \text{ mA}$, $P_i = 1 \text{ W}$, $C_i = 10 \text{ nF}$, $L_i = 0$; PA/FF version intrinsically safe when connected per installation drawing 960014220 or 960014223, with entity parameters $V_{max}(U_i) = 24 \text{ Vdc}$, $I_{max}(I_i) = 250 \text{ mA}$, $P_i = 1.2 \text{ W}$, $C_i = 5 \text{ nF}$, $L_i = 10 \mu\text{H}$ and FISCO parameters $V_{max}(U_i) = 17.5 \text{ Vdc}$, $I_{max}(I_i) = 500 \text{ mA}$, $P_i = 5.5 \text{ W}$, $C_i = 5 \text{ nF}$, $L_i = 10 \mu\text{H}$; temperature code T6 ($T_a = 40 \text{ }^\circ\text{C}$), T4 ($T_a = 70 \text{ }^\circ\text{C}$); MWP 145 psi (10 bar); FMB50 is a Single Seal Device.

CLASS 2252 05 - PROCESS CONTROL EQUIPMENT
CLASS 2252 85 - PROCESS CONTROL EQUIPMENT – Certified to U.S. Standards

- Deltabar M, Types PMD55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; MWP 2320 psi (160 bar).

- Cerabar M, Types PMC51, PMP51, PMP55, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; MWP 5802 psi (400 bar), PMC51 580 psi (40 bar).

- Deltapilot M, Type FMB50, FMB51, FMB52 and FMB53, Pressure Transmitters, 4-20mA version rated 45Vdc max, 23mA, PA/FF version rated 32Vdc, 1.25W; Enclosure Type 4X/6P; MWP 145 psi (10 bar).

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APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10	-	General Requirements – Canadian Electrical Code, Part II
CSA Std C22.2 No. 25-1966	-	Enclosures for Use in Class II Groups E, F, and G Hazardous Locations
CSA Std C22.2 No. 30-M1986	-	Explosion-Proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA-C22.2 No. 94-M91	-	Special Purpose Enclosures
CSA Std C22.2 No. 213-M1987	-	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA C22.2 No. 60079-0:15	-	Explosive Atmospheres - Part 0: Equipment – General Requirements
CAN/CSA C22.2 No. 60079-11:14	-	Explosive Atmospheres - Part 11: Equipment protection by intrinsic safety "i"
CAN/CSA C22.2 No. 61010-1-12	-	Safety Requirements for Electrical Equipment for Measurement Control and Laboratory Use, Part 1: General Requirements
FMRC 3600 - 1998	-	Electrical Equipment for Use in Hazardous (Classified) Locations, General Requirements
FMRC3610 - 2010	-	Intrinsically Safe Apparatus for Use in Class I, II & III, Division 1, and Class I, Zone 0 & 1 Hazardous (Classified) Locations
FMRC3611 - 2004	-	Nonincendive Electrical equipment for Use in Class I and Class II, Division 2, and Class III, Division 1 and 2 Hazardous (Classified) Locations
FMRC 3615 - 2006	-	Explosionproof Electrical Equipment, General Requirements
FMRC 3810 - 2005	-	Electrical and Electronic Test, Measuring, and Process Control Equipment
ANSI/NEMA 250 - 1991	-	Enclosures for Electrical Equipment
ANSI/ISA-12.27.01-2003	-	Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids



Supplement to Certificate of Compliance

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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

Project	Date	Description
70118992	2017-02-28	Update to CSA report 2174234 to include; new optional order codes, new CARMEN sensor module, delete obsolete models of display and electronics insert, drawing updates to include new order codes and minor mechanical changes.
70056501	2016-03-04	Update to include minor PCB revisions.
2675461	2014-04-25	Update to include single seal markings, additional EMI Filters and optional sensor electronics.
2392957	2011-03-16	Update to cover dual seal for PMD55, add profibus and Fieldbus, and high temperature variant for PMC51.
2246590	2009-12-21	Update to report 2174234 to include new Rod/Rope version, revised HART insert, XP-IS nameplates, CSA/FM/ATEX nameplates and Single/Dual Seal ratings.
2174234	2009-08-03	Original Certification