# Certificate of Compliance

**Certificate:** 1694802 (079626_0_000) **Master Contract:** 160618

**Project:** 70040212 **Date Issued:** 2017-02-15

**Issued to:** **ABB Inc.**
**17100 Manchac Park Lane Suite B, Suite B**
**Baton Rouge, Louisiana 70817**
**USA**

**Attention: Fred Ramirez**

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

**Issued by:** *Madhumathi Kulothungan*
Madhumathi Kulothungan

**PRODUCTS**

**CLASS - C225802 - PROCESS CONTROL EQUIPMENT-For Hazardous Locations-**
**CLASS - C225804 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe, Entity - For Hazardous Locations-**

**CLASS 2258 02 -** PROCESS CONTROL EQUIPMENT - For Hazardous Locations

**Class I, Division 1, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III; T-Code - T6**
**Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; T-Code - T5**

Model MT5000/5100/5200 Radar Level Transmitter explosion-proof with intrinsically safe antenna rod for use in hazardous locations;
Rated inputs: 13.5 – 36 Vdc (Standard and Foundation Fieldbus), 10-18 Vdc (MODBUS); Maximum ambient = 77ºC. MWP = 5000 psi max. Enclosure Type 4X. Single Seal

Notes:
The Process Temperature Range is -29°C to +427°C (-20°F to +800°F) max. The MWP and Process Temperature Range are dependent on the process connection method and as a result may be appropriately de-rated. See model nomenclature under the Description section of this report for more configuration details.

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

**Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F and G; T-Code T4**

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Model MT5000/5100/5200 Radar Level Transmitter (Standard and Fieldbus configurations only) intrinsically safe when installed per installation drawing ELE 1034 or ELE9020
Rated Inputs: Vmax = 36 Vdc, Imax = 200 mA, Pmax = 1.2W, Ci = 0.005 µF, Li = 510 µH, Maximum ambient = 77ºC. MWP = 5000 psi max. Enclosure Type 4X. Single Seal

Notes:
The Process Temperature Range is -29°C to +427°C (-20°F to +800°F) max. The MWP and Process Temperature Range are dependent on the process connection method and as a result may be appropriately de-rated. See model nomenclature under the Description section of this report for more configuration details.

**Model Nomenclature**

The specific model designations for Models MT5000/5100/5200 are identified as follows:

**MT5X00** a.b.c.d.e.f.g.h.i.j.k.l.m.n.o.p.q.r.s.t.u.v.w.x.y.z.aa.bb
**a=Device Type:** 000, 100, 200
**b=Coupler Material:** S6, S4, H1, H3, M4, T2, T5, N2, A2, D1, D2, N1
**c=Transmitter Configuration:** L, LW, R, RW, Z9
**d=Transmitter Housing:** A, S
**e=Process Connection: Waveguide Coupler:** C1, C1H, C2, C2H, C3, C4, C4H, C5, C5H, C6, C7, C8, C9, CZ
**f=Process Seal Type:** Y, V, SV, K, SK, E, SE, A, SA, B, SB, S, Z9
**g=Probe Type:** P01, P02, P03, P21, P22, P411F, P421F, P412F, P422F, P41EP, P42EP, P43, P11, P12, P31, P32, P33, P61, P51, P71, P52, P81, P91, Z9
**h=Probe End Attachment:** Y0, W09, W10, W13, W16, W19, W29, WS6, W61, W99, D15, D20, D23, D28, D38, D60, D99, E1, E2, Z9
**i=Probe Attachment Material:** Y, S6, S4, H1, H3, M4, T2, T5, N2, A2, D1, D2, N1, Z9
**j=Process Temperature Extension:** H0, H6, Z9
**k=Electronics Module:** M7A, M7AF, M7B, M7BF, M71AM, M71BM
**l=Agency Approvals:** N1, N2, N3
**m=Process Connection Type:** Y0, P1, P4, P3, P2
**n=Process Connection Material:** Y0, S6, S4, C1, H1, H3, M4, T2, T5, N2, A2, D1, D2, N1, Z9
**o=Flange or Plug Size // Rating / Type:** YYYY, NTBN, NTCN, NTEN, NTFN, NTGN, GTBN, GTCN, GTEN, GTFN, GTGN, R11, R13, R16, R151, R153, R156, R21, R23, R26, R251, R253, R256, R31, R33, R36, R41, R43, R46, R61, R63, R66, D2525, D2540, D3225, D3240, D4025, D4040, D5025, D5040, D6525, D6540, D8025, D8040, D10025, D10040, D12525, D12540, D15025, D15040, P1, P15, P2, P25, P3, P4, SCC, SCE, SCF, SCG, SCH, SCJ, SRC, SRE, SRF, SRG, SRH, SRJ, SSC, SSE, SSF, SSG, SSH, SSJ, Z9
**p=Additional Approvals or Certifications:** CRN, CC, CS, CP, CL2, CL3, CWL, CWG, P4, PZ
**q=Sensor Options:** SEL, SEP, SEN, SEB, SE1, SE2, SE3, P1, P7, SEZ
**r=Target Float Options:** FT1, FT2, FT3, FT4, FT5, FZ9
**s=Remote Electronics Signal Cable Length:** SRW, SRT, SR1, SRR, SRZ
**t=Repeat Indicator:** AR
**u=Add Rod Extension:** AR1, AR2, AR3, AR9
**v=Gas Phase Compensation:** NP1, NP2, NP3, NPZ
**w=Centering Disk for Cable Weight:** WD1, WD2, WD3, WD4, WD5, WD6, WDZ
**x=Device Identification Plate:** T1, TS, TZ
**y=Electrical Connector Type:** U8, U9

**z=Surge Protector:** Not Used for CSA
**aa=Special Other:** TEZ, STH, STF
**bb=Mounted Accessories:** AS, A3

Note: See MT5000-0303-2 document for new nomenclature for detail information.

Notes related to CSA C22.2 No: 61010-1(Edition 3):

1. The models MT5000/5100/5200 are permanently connected, Equipment Class I, Over voltage category I
2. Mode of operation: Continuous
3. Pollution degree: 4
4. Environmental conditions: Temperature -40 °C to + 77°C, Altitude 2000m, 0-100% Relative Humidity, non-condensing

## APPLICABLE REQUIREMENTS

| | |
|---|---|
| CSA Standard C22.2 No. 0-10 | - General Requirements - Canadian Electrical Code, Part II |
| CSA Standard C22.2 No. 0.4-2004 | - Bonding of Electrical Equipment |
| CSA Standard C22.2 No. 25-1966 | - Enclosures for Use in Class II, Groups E, F and G Hazardous Locations |
| CSA Standard C22.2 No. 30-M1986 | - Explosion-Proof Enclosures for Use in Class I Hazardous Locations |
| CSA Standard C22.2 No. 94-M91 | - Special Purpose Enclosures |
| CSA Standard C22.2 No: 61010-1-12 (IEC 61010-1: 2010 MOD) | - Safety requirements for electrical equipment for measurement, control and laboratory use |
| CSA Standard C22.2 No. 157-92 | - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations |
| CSA Standard C22.2 No. 213-M1987 | - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations |
| ANSI/ISA-12.27.01–2003 | - Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids |

# *Supplement to Certificate of Compliance*

**Certificate:** 1694802 (079626_0_000) **Master Contract:** 160618

***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 |
|---|---|---|
| 70040212 | 2017-02-15 | Update to report 1694802 (LR 79626) for models MT5000, MT5100 and MT5200 to include the following changes: 1.) Addition of new window cover silicone joint on housing HSG2017 based on complete test data from FM Report 3053578. 2.) Update from standard CSA C22.2 No: 142 to CSA C22.2 No: 61010-1 (Edition 3). 3.) Replacement of 1 and addition of 3 drawings. |
| 70058516 | 2016-05-13 | Update to report 1694802 for models MT5000, MT5100 & MT5200 to include the new Modbus interface board (Drawing #MT5000-1900-2) and Intrinsic Safety Schematic (ELE9020) to update certification to include intrinsic safety for Class I Div 1 Grps ABCD, Class II Div 1 Grps EFG, Class III - T4, Add M71AM and M71BM and delete M7AM and M7BM electronic modules and Updated drawing # MT5000-7000-1 changing to MT5000-7000-2 to meet the IS requirements. |
| 70006584 | 2015-06-01 | Possible update to report 1694802 to include drawing updates that do not affect electrical safety; assumes none of the drawing changes require testing. |
| 2267018 | 2010-03-29 | Update report 1694802 to include optional material for metallic sensor parts, assumes only a paperwork review. |
| 1978872 | 2008-01-15 | Update report 1694802 to include Single Seal evaluation to ANSI/ISA 12.27.01. Based on analysis and testing performed as part of MT2000 update for the same evaluation. |
| 1694802 | 2006-02-22 | MT5000/5100/5200 Radar Level Transmitters (I.S. and Ex-proof with IS probe) for use in Class I, Division 1, Group ABCD; Class I, Division 2, Group ABCD; Class II, Groups FG; Class III (based partially on MT2000 under CSA project 1172094). |