



# Certificate of Compliance

**Certificate:** 2534417

**Master Contract:** 151079

**Project:** 2534417

**Date Issued:** April 2, 2013

**Issued to:** Endress +Hauser  
Hauptstrasse 1  
D-79689 Maulburg  
GERMANY

**Attention:** Mr. Dieter Benz

*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:** E Giusti  
*E Giusti*

## PRODUCTS

**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

**Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III;**

**Ex d ia IIC T6...T4 ;**

**Class I, Zone 1, AEx d ia IIC T6...T4 ;**

FTG20 Models FTG20-CB x5xxxxx + xx, Gamma Radiation Level Limit transmitters with FEG25 Electronic insert (8/16mA).

Intrinsically safe per Control Drawing No XA00674F with entity parameters: input rated  $U_i$  ( $V_{max}$ ) < 30 Vdc,  $I_i$  ( $I_{max}$ ) < 100 mA,  $P_i$  < 1 W,  $C_i$  = 2.4 nF,  $L_i$  = 0 mH;

Type 4X/6P (F27 housing) or 4X/6 (F13 housing), IP66/68 (F27 housing) or IP66/67 (F13 housing); Type 4X/6P for the sensor housing;

$-40^{\circ}\text{C} \leq T_a$  (transmitter)  $\leq +70^{\circ}\text{C}$ ;  $-40^{\circ}\text{C} \leq T_a$  (sensor)  $\leq +120^{\circ}\text{C}$ .

**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



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Hazardous Locations - CERTIFIED TO U.S. STANDARDS

**Class I, Division 1, Groups A, B, C and D; Class II, Div. 1, Groups E, F, G; Class III;**  
**Ex d [ia] IIC T6...T4;**  
**Class I, Zone 1; AEx d [ia] IIC T6...T4**

FTG20 Models FTG20-CC x4xxxxx + xx, Gamma Radiation Level Limit transmitters with FEG24 Electronic insert (Relay output);

Input rated :19-250VAC, 50 : 60 Hz or 19-55VDC ;

Output rated : 250VAC, 4A or 125 VDC (30VDC), 0.2A (4A).

Explosion-Proof and Dust-Tight with intrinsically safe sensor connected per installation drawing XA00618F; Type 4X/6P (F27 housing) or 4X/6 (F13 housing), IP66/68 (F27 housing) or IP66/67(F13 housing); Type 4X/6P for the sensor housing;

$-40^{\circ}\text{C} \leq T_a$  (transmitter)  $\leq +70^{\circ}\text{C}$ ;  $-40^{\circ}\text{C} \leq T_a$  (sensor)  $\leq +120^{\circ}\text{C}$  .

**CLASS 2252 05 - PROCESS CONTROL EQUIPMENT**

**CLASS 2252 85 - PROCESS CONTROL EQUIPMENT - Certified to US Standards**

FTG20 Models FTG20-CA xxxxxxxx + xx, Gamma Radiation Level Limit transmitters with :

- FEG25 Electronic insert (8/16mA); Input rated  $U = 11 \dots 36 \text{ VDC}$ ,  $P=0.9\text{W}$ ;  
 $-40^{\circ}\text{C} \leq T_a$  (transmitter)  $\leq +70^{\circ}\text{C}$ ;  $-40^{\circ}\text{C} \leq T_a$  (stainless steel sensor)  $\leq +120^{\circ}\text{C}$ ;  $-40^{\circ}\text{C} \leq T_a$  (aluminum sensor)  $\leq +70^{\circ}\text{C}$
- FEG24 Electronic insert (Relay output); Input rated :19-250VAC, 50 : 60 Hz, 23 VA or 19-55VDC, 1.4 W; Output rated : 250VAC, 4A, 1000 VA or 125 VDC (30VDC), 0.2A (4A).  
 $-40^{\circ}\text{C} \leq T_a$  (transmitter)  $\leq +70^{\circ}\text{C}$ ;  $-40^{\circ}\text{C} \leq T_a$  (stainless steel sensor)  $\leq +120^{\circ}\text{C}$ ;  $-40^{\circ}\text{C} \leq T_a$  (aluminum sensor)  $\leq +70^{\circ}\text{C}$

Enclosure Type 4X/6P (F27 housing and stainless steel sensor) or 4X/6 (F13 housing and aluminum sensor), IP66/68 (F27 housing and stainless steel sensor) or IP66/67 (F13 housing and aluminum sensor).

### **APPLICABLE REQUIREMENTS**

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

CAN/CSA C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements - Third Edition

CSA C22.2 No. 25-1966: 2000 - Enclosures for Use in Class II, Groups E, F & G Hazardous Locations

CSA C22.2 No. 30-1986: 2007 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations Industrial Products - Third Edition;

CAN/CSA C22.2 No. 94-M91 – Special Purpose Enclosures

CAN/CSA C22.2 No 60529: 2005 - Degrees of Protection Provided by Enclosures (IP Code)

CSA C22.2 No. 157-2006 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA C22.2 No 60079-0:11 - Explosive atmospheres - Part 0: Equipment - General requirements



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CSA C22.2 No 60079-11:11 - Explosive atmospheres - Part 11: Equipment protection by intrinsic safety “i”  
CSA C22.2 No 60079-1:11 - Electrical Apparatus for Explosive Gas Atmospheres Part 1: Flameproof Enclosure “d”

FM 3810: 2005 - Approval Standard for Electrical Equipment for Measurement, Control, and Laboratory Use  
ANSI/ISA-61010-1 (82.02.01): 2012 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1 General Requirements

FM 3600:2011 - Approval Standard for Electrical Equipment for use in Hazardous (Classified) Locations General Requirements

FM 3610:2010 - Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, III, Division 1, Hazardous (Classified) Locations

FM 3615: 2006 - Explosionproof Electrical Equipment

FM 3616: 2011 - Dust Ignitionproof Electrical Equipment for Use in Hazardous (Classified) Locations

ANSI/NEMA 250:2006 - Enclosures for Electrical Equipment (1,000 Volts Maximum)

ANSI/IEC 60529:2004 - Degrees of Protection Provided by Enclosures (IP Code) (identical national adoption)

ISA 60079-0 (12.00.01): 2009 - Electrical Apparatus for Use in Class I, Zone 0, 1 & 2 Hazardous (Classified) Locations: General requirements

ANSI/ISA 60079-1(12.22.01): 2009 - Electrical Apparatus for Use in Hazardous (Classified) Locations – Flameproof enclosures “d”

ISA 60079-11 (12.02.01): 2011 - Electrical Apparatus for Use in Class I, Zone 0, 1 & 2 Hazardous (Classified) Locations - Intrinsic Safety “i”

Used as a guide:

CAN/CSA C22.2 No 60079-31

ANSI/ISA 60079-31

### **MARKINGS**

Product markings shall be in accordance with the related standards. In addition, it shall be the responsibility of the manufacturer to provide additional markings on the product to comply with the requirements of the local regulatory authorities. For example, in Canada, any caution and warning markings must be provided in French and English.

Markings are printed on following nameplates:

- Wölco Type 3105 2008 or
- Eltex Type LAZRetch PM-200 (Top-Script 101 720) or
- stainless steel

Surface material:

- nickel-plated aluminum (ordinary location) or
- stainless steel
- polyester coating (F13-housing)

Nameplates are as per drawings 960014900/960014897 (hazardous locations) and 960015008, 960014898 (general purpose). Applicable installation drawings XA00618F and XA00674F are shipped with each product.

Note: warnings shown on drawings 960014968 and 960014969 are made on adhesive labels described above.



## *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**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
2534417	April 2, 2013	Original Certification FTG20, Gamma Radiation Level Limit transmitters