



Member of the FM Global Group

FM Approvals  
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# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

### 1066-a-b-67. Liquid Analytical Transmitter.

IS/I, II, III/1/ABCDEFGH/T4 Ta = -20°C to +65°C - 1400670; Entity

I/O, AEx ia IIC T4 Ta = -20°C to +65°C - 1400670; Entity

NI/I/2/ABCD/T4 Ta = -20°C to +65°C; - 1400670; NIFW

DIP/II,III/1/EFG/T4 Ta = -20°C to +65°C;

IP66

Entity Parameters:

4-20mA Loop Power Terminals, TB6 -1, -2 and -3:

Ui = 30V, Ii = 200mA, Pi = 900mW, Ci = 0, Li = 8.95µH.

Analog Loop Power Terminals, TB7 -1 and 2:

Ui = 30V, Ii = 200mA, Pi = 900mW, Ci = 0, Li = 5.97µH.

Sensor Terminals TB2-1, 2 and 3:

Uo = 10.69Vdc, Io = 211.20mA, Po = 250mW, Co = 2.22µF, Lo = 795µH, Group IIC

Uo = 10.69Vdc, Io = 211.20mA, Po = 250mW, Co = 15.5µF, Lo = 3.17mH, Group IIB.

Uo = 10.69Vdc, Io = 211.20mA, Po = 250mW, Co = 68.9µF, Lo = 6.36mH, Group IIA.

a = Measurement type: P, CL, DO or OZ.

b = Analog/Digital Output Type: AN or HT.

#### **Special Condition of Use:**

1. The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer the enclosure only.
2. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build-up. The Model 1066 Transmitter must not be rubbed or cleaned with solvents or a dry cloth.

### 1066-a-b-67. Liquid Analytical Transmitter.

IS/I, II, III/1/ABCDEFGH/T4 Ta = -20°C to +65°C - 1400670; Entity

I/O, AEx ia IIC T4 Ta = -20°C to +65°C - 1400670; Entity

NI/I/2/ABCD/T4 Ta = -20°C to +65°C; - 1400670; NIFW

DIP/II,III/1/EFG/T4 Ta = -20°C to +65°C;

IP66

Entity Parameters:

4-20mA Loop Power Terminals, TB6 -1, -2 and -3:

Ui = 30V, Ii = 200mA, Pi = 900mW, Ci = 0, Li = 8.95µH.

Analog Loop Power Terminals, TB7 -1 and 2:

$U_i = 30V$ ,  $I_i = 200mA$ ,  $P_i = 900mW$ ,  $C_i = 0$ ,  $L_i = 5.97\mu H$ .

a = Measurement type: C or T.

b = Analog/Digital Output Type: AN or HT.

**Special Condition of Use:**

1. The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer the enclosure only.
2. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build-up. The Model 1066 Transmitter must not be rubbed or cleaned with solvents or a dry cloth.
3. For use with the Model series 222, 225, 226, 228 toroidal sensors and the simple apparatus Model series 140,141, 142, 150, 400, 401, 402, 402VP, 403, 403VP, 404 & 410VP contacting conductivity sensors.

**1066-a-FF-67. Liquid Analytical Transmitter.**

IS/I, II, III/1/ABCDEFGH/T4 Ta = -20°C to +65°C - 1400670; Entity

I/O, AEx ia IIC T4 Ta = -20°C to +65°C - 1400670; Entity

NI/I/2/ABCD/T4 Ta = -20°C to +65°C; - 1400670; NIFW

DIP/II,III/1/EFG/T4 Ta = -20°C to +65°C;

IP66

Entity Parameters:

$U_i = 30V$ ,  $I_i = 300mA$ ,  $P_i = 1.3W$ ,  $C_i = 0$ ,  $L_i = 0$ .

a = Measurement type: C or T.

**Special Condition of Use:**

1. The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer the enclosure only.
2. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build-up. The Model 1066 Transmitter must not be rubbed or cleaned with solvents or a dry cloth.
3. For use with the Model series 222, 225, 226, 228 toroidal sensors and the simple apparatus Model series 140,141, 142, 150, 400, 401, 402, 402VP, 403, 403VP, 404 & 410VP contacting conductivity sensors.

**1066-a-FF-67. Liquid Analytical Transmitter.**

IS/I, II, III/1/ABCDEFGH/T4 Ta = -20°C to +65°C - 1400670; Entity

I/O, AEx ia IIC T4 Ta = -20°C to +65°C - 1400670; Entity

NI/I/2/ABCD/T4 Ta = -20°C to +65°C; - 1400670; NIFW

DIP/II,III/1/EFG/T4 Ta = -20°C to +65°C;

IP66

Entity Parameters:

$U_i = 30V$ ,  $I_i = 300mA$ ,  $P_i = 1.3W$ ,  $C_i = 0$ ,  $L_i = 0$ .

Sensor Terminals TB2-1, 2 and 3:

$U_o = 11.33V_{dc}$ ,  $I_o = 77.77mA$ ,  $P_o = 110.12mW$ ,  $C_o = 1.7\mu F$ ,  $L_o = 5.86mH$ , Group IIC

$U_o = 11.33V_{dc}$ ,  $I_o = 77.77mA$ ,  $P_o = 110.12mW$ ,  $C_o = 11.6\mu F$ ,  $L_o = 23.5mH$ , Group IIB.

$U_o = 11.33V_{dc}$ ,  $I_o = 77.77mA$ ,  $P_o = 110.12mW$ ,  $C_o = 47.9\mu F$ ,  $L_o = 47mH$ , Group IIA.

a = Measurement type: P, CL, DO or OZ.

**Special Condition of Use:**

1. The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer the enclosure only.
2. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build-up. The Model 1066 Transmitter must not be rubbed or cleaned with solvents or a dry cloth.

**Equipment Ratings:**

Intrinsically Safe (Entity) for use in Class I, II and III, Division 1, Groups A, B, C, D, E, F and G;

Temperature Class T4 Tamb = -20°C to +65°C in accordance with Control Drawing No. 1400670;

Intrinsically safe (Entity) for use in Class I, Zone 0, AEx ia IIC T4 Tamb = -20°C to +65°C; in accordance

with Control Drawing No. 1400670; Nonincendive for use in Class I, Division 2, Groups A, B, C, and D;

Temperature Class T4 Ta = -20°C to +65°C; NIFW in accordance with Control Drawing No. 1400670;

Dust-Ignitionproof for use in Class II and III, Division 1, Groups E, F and G; Temperature Class T4 Tamb = -20°C to +65°C; indoor and outdoor, IP66 Hazardous (Classified) Locations

**1066-a-FI-67. Liquid Analytical Transmitter.**

IS/I, II, III/1/ABCDEFGH/T4 Ta = -20°C to +40°C - 1400670; Entity  
 I/O, AEx ia IIC T4 Ta = -20°C to +40°C - 1400670; Entity  
 NI/I/2/ABCD/T4 Ta = -20°C to +65°C; - 1400670; NIFW  
 DIP/II,III/1/EFG/T4 Ta = -20°C to +65°C;  
 IP66

FISCO Parameters:

Ui = 17.5V, Ii = 380mA, Pi = 5.32W, Ci = 0, Li = 0.

a = Measurement type: C or T.

**Special Condition of Use:**

1. The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer the enclosure only.
2. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build-up. The Model 1066 Transmitter must not be rubbed or cleaned with solvents or a dry cloth.
3. For use with the Model series 222, 225, 226, 228 toroidal sensors and the simple apparatus Model series 140,141, 142, 150, 400, 401, 402, 402VP, 403, 403VP, 404 & 410VP contacting conductivity sensors.

**1066-a-FI-67. Liquid Analytical Transmitter.**

IS/I, II, III/1/ABCDEFGH/T4 Ta = -20°C to +40°C - 1400670; Entity  
 I/O, AEx ia IIC T4 Ta = -20°C to +40°C - 1400670; Entity  
 NI/I/2/ABCD/T4 Ta = -20°C to +65°C; - 1400670; NIFW  
 DIP/II,III/1/EFG/T4 Ta = -20°C to +65°C;  
 IP66

Entity Parameters:

Ui = 30V, Ii = 300mA, Pi = 1.3W, Ci = 0, Li=0.

FISCO Parameters:

Ui = 17.5V, Ii = 380mA, Pi = 5.32W, Ci = 0, Li = 0.

Sensor Terminals TB2-1, 2 and 3:

Uo = 11.33Vdc, Io = 82.86mA, Po = 117.33mW, Co = 1.7µF, Lo = 5.17µH, Group IIC

Uo = 11.33Vdc, Io = 82.86mA, Po = 117.33mW, Co = 11.6µF, Lo = 20.71mH, Group IIB.

Uo = 11.33Vdc, Io = 82.86mA, Po = 117.33mW, Co = 47.9µF, Lo = 41.41mH, Group IIA.

a = Measurement type: P, CL, DO or OZ.

**Special Condition of Use:**

1. The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer the enclosure only.
2. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build-up. The Model 1066 Transmitter must not be rubbed or cleaned with solvents or a dry cloth.

**Equipment Ratings:**

Intrinsically Safe (Entity; FISCO) for use in Class I, II and III, Division 1, Groups A, B, C, D, E, F and G; Temperature Class T4 Tamb = -20°C to +40°C in accordance with Control Drawing No. 1400670;

Intrinsically safe (Entity:FISCO) for use in Class I, Zone 0, AEx ia IIC T4 Tamb = -20°C to +40°C; in accordance with Control Drawing No. 1400670; Nonincendive for use in Class I, Division 2, Groups A, B,

C, and D; Temperature Class T4 Ta = -20°C to +65°C; NIFW in accordance with Control Drawing No.

1400670; Dust-Ignitionproof for use in Class II and III, Division 1, Groups E, F and G; Temperature Class T4 Tamb = -20°C to +65°C; indoor and outdoor, IP66 Hazardous (Classified) Locations



FM Approved for:

Emerson Process Management  
Rosemount Analytical, Inc.  
Irvine, CA 92606 USA



This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3610	2010
Class 3611	2004
Class 3810	2005
ANSI/IEC 60529	2004
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-11	2009

Original Project ID: 3040359

Approval Granted: April 19, 2012

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3043457	October 4, 2012		

FM Approvals LLC

J.E. Marquedant  
Group Manager, Electrical

4 October 2012

Date