



Member of the FM Global Group

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

**BA201 Communications Isolator.**

AIS/ I, II, III / ABCDEFG – Entity; CI201-12

[0/I] AEx ia IIC – Entity; CI201-12

NI / I / 2 / ABCD / T5 Ta = 60°C

I / 2 / IIC / T5 Ta = 60°C

Entity parameters

Terminal	Uo (V)	Io (mA)	Po (W)	Co (nF)	Lo (mH)
1-3	21.2	96	0.51	183	3.2
2-3	13.7	84	0.45	780	4.1
1-2-3	21.2	159	0.72	183	1.0

*Special conditions of Use*

1. The signal conditioner shall be installed within a tool secured enclosure in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application

Equipment Ratings:

Associated intrinsically safe apparatus for connection to Class I, II, and III, Division 1 and 2, Groups A, B, C, D, E, F and G; and Class I, Zone 0, Group IIC Hazardous (Classified) Locations when installed in accordance with Control Drawing CI201-12.

Nonincendive apparatus for use in Class I, Division , Groups A, B, C and D; and Class I, Zone 2, Hazardous (Classified) Locations. Temperature Class T5 Ta = 60°C

FM Approved for:

BEKA associates Limited  
Hitchin, United Kingdom



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

CSA C22.2 No 157	1992
CSA C22.2 No 213	1987
CSA C22.2 No. 1010.1	2004
CSA E60079-0	2002
CSA E60079-11	2002

Original Project ID: 3029711C

Approval Granted: November 30, 2007

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
071207	4/25/08		

FM Approvals LLC

David W. Styracula  
Technical Team Manager

April 29, 2008  
Date



Iss.	Date	Modification	Ckd.	Appd.
1	10.05 2007	See adjacent record		
2	11.12 2007	Lo 0.41 > 1mH		

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 England  
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HAZARDOUS  
(CLASSIFIED)  
LOCATION

HAZARDOUS  
LOCATION  
EQUIPMENT

SEE NOTE 3

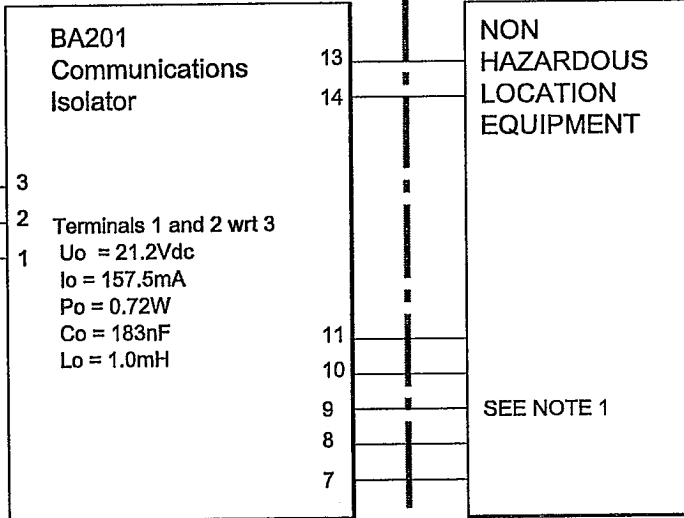
UNCLASSIFIED LOCATION or  
DIVISION 2 HAZARDOUS  
(CLASSIFIED) LOCATION

Class I, Groups A, B, C, D  
Class I, Zone 2, Group IIC

UNCLASSIFIED  
LOCATION

NON  
HAZARDOUS  
LOCATION  
EQUIPMENT

SEE NOTE 1



## SUB MASTER

No modification to be made  
without reference/approval from  
FM Approvals and  
BEKA associates Design Department.

Title

FM Approvals Control Drawing for  
BA201 Communications Isolator

Drawn

RC

Checked

Scale

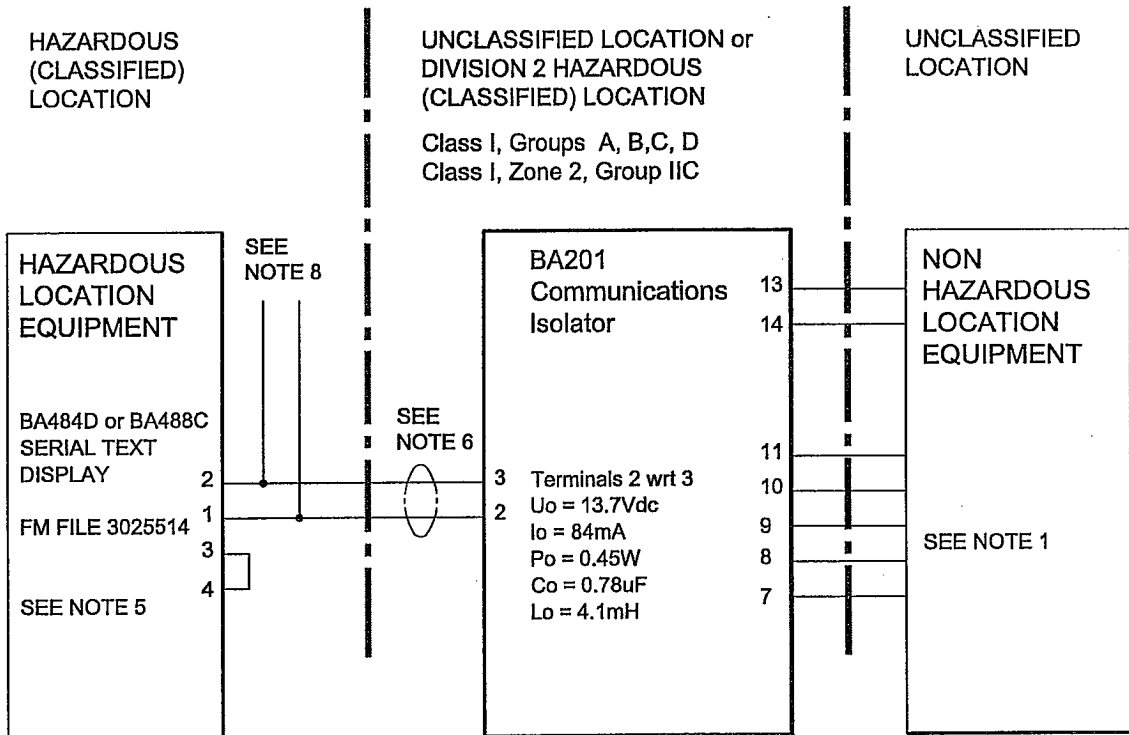
N/A

Drawing No.  
Sheet 1 of 3

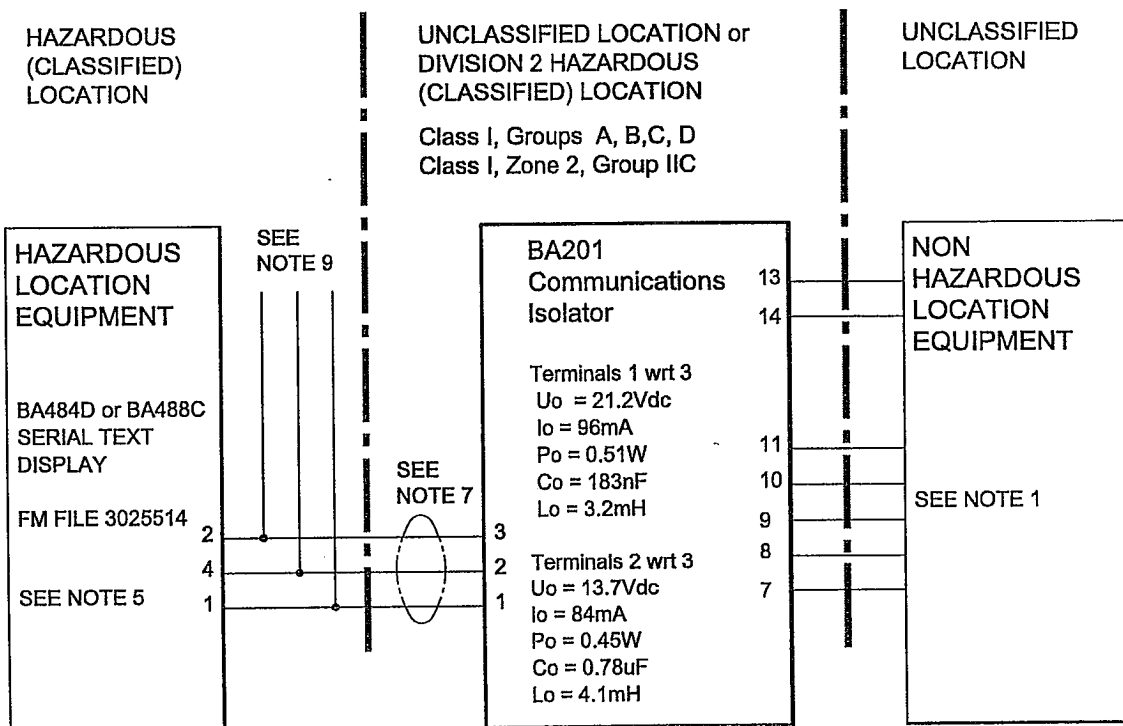
CI201-12

# SUB - MASTER

## TWO WIRE SYSTEM FOR COMMUNICATIONS WITH BA484D AND/OR BA488C SERIAL TEXT DISPLAYS



## THREE WIRE SYSTEM FOR COMMUNICATIONS WITH BA484D AND/OR BA488C SERIAL TEXT DISPLAYS



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Iss.	Date	Modification	Ckd.	Appd.
1	10.05 2007	See adjacent record		
2	11.12 2007	Lo 0.41 > 4.1mH (x2), Lo 0.32 > 3.2mH		

**Title**

FM Approvals Control Drawing for  
BA201 Communications Isolator

Drawn RC	Checked 	Scale N/A
Drawing No. Sheet 2 of 3		C1201-12

# SUB - MASTER

1. The unclassified location equipment connected to the BA201 shall not use or generate more than 250V rms or 250V dc.
2. The installation shall be in accordance with ANSI/ISA RP 12.06.01 'Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations' and the National Electrical Code ANSI/NFPA 70.

Installations in Canada shall be in accordance with the Canadian Electrical Code C22.2

3. The Hazardous Location equipment may be:

Simple apparatus e.g. mechanically activated switches

OR FM approved equipment, or for installations in Canada CFM approved equipment, both having entity parameters complying with the following requirements:

U <sub>i</sub>	equal to or greater than	U <sub>o</sub> or V <sub>t</sub>
l <sub>i</sub>	equal to or greater than	l <sub>o</sub> or l <sub>t</sub>
L <sub>cabl</sub> + L <sub>i</sub>	equal to or less than	L <sub>o</sub>
C <sub>cabl</sub> + C <sub>i</sub>	equal to or less than	C <sub>o</sub>

4. The BA201 has two intrinsically safe outputs connected to terminals 1 and 2 respectively, both outputs share common terminal 3.

5. BA484D or BA488C Serial Text Displays FM File 3025514

6.
 

L <sub>cabl</sub>	equal to or less than	4.1mH
C <sub>cabl</sub>	equal to or less than	780nF

7.
 

For terminals 1 and 3 of BA201		
L <sub>cabl</sub>	equal to or less than	3.2mH – sum of L <sub>i</sub>
C <sub>cabl</sub>	equal to or less than	183nF – sum of C <sub>i</sub>

For terminals 2 and 3 of BA201		
L <sub>cabl</sub>	equal to or less than	4.1mH
C <sub>cabl</sub>	equal to or less than	780nF

8. Up to two BA484D and/or BA488C serial text displays may be connected to one BA201 communications isolator.

9. Up to four BA484D and/or BA488C serial text displays may be connected to one BA201 communications isolator.

10. When the BA201 is installed in a Division 2 or Zone 2 Hazardous location, a warning label must be prominently affixed near the BA201 which warns that the BA201 must not be removed or inserted unless the area is known to be nonhazardous.

Iss.		Date		Modification		Ckd.		Appd.	
1		10.05 2007		See adjacent record					
2		11.12 2007		L <sub>cabl</sub> 0.41 > 4.1mH (x2), L <sub>cabl</sub> 0.32 > 3.2mH					

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**Title**  
FM Approvals Control Drawing for  
BA201 Communications Isolator

Drawn RC	Checked 	Scale N/A
Drawing No. Sheet 3 of 3		CI201-12