



Member of the FM Global Group

FM Approvals
1151 Boston Providence Turnpike
P.O. Box 9102 Norwood, MA 02062 USA
T: 781 762 4300 F: 781-762-9375 www.fmapprovals.com

CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

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

- 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
Hitchin, Hertfordshire SG5 2DA, United Kingdom



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

Class 3600	1998
Class 3610	2010
Class 3810	2005

Original Project ID: 3029711

Approval Granted: November 30, 2007

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
071207	April 25, 2008		
101217	March 16, 2011		

FM Approvals LLC

Timothy J. Adam
Technical Team Manager

Date



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

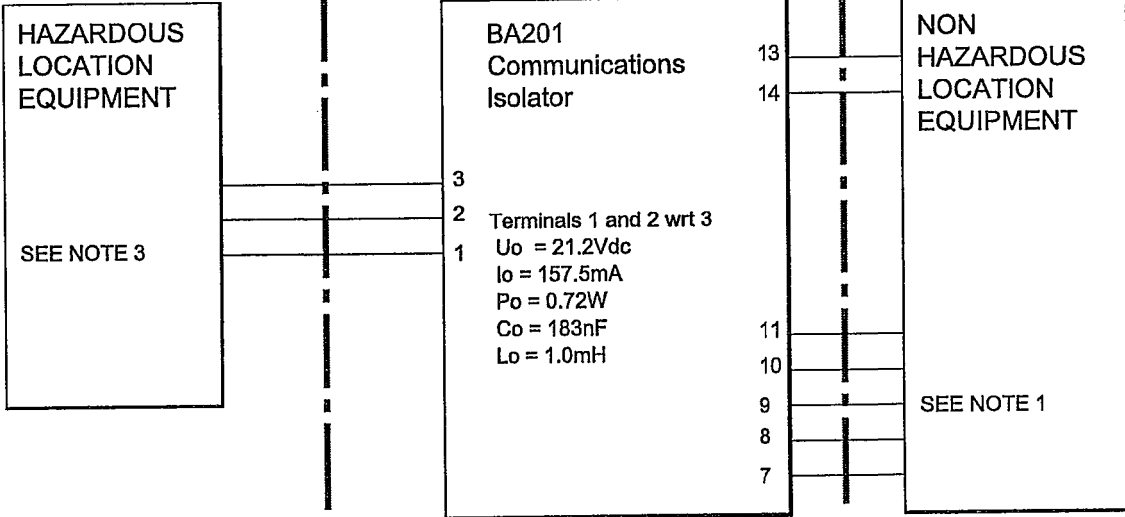
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HAZARDOUS (CLASSIFIED) LOCATION

UNCLASSIFIED LOCATION or DIVISION 2 HAZARDOUS (CLASSIFIED) LOCATION

UNCLASSIFIED LOCATION

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



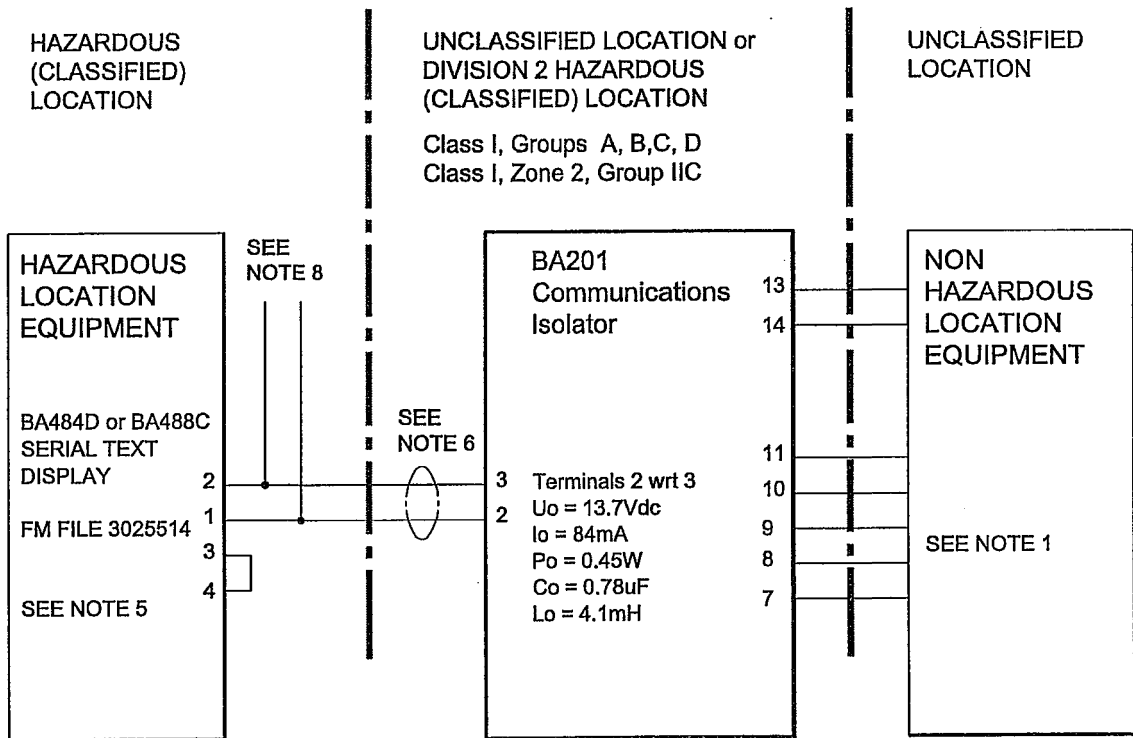
SUB MASTER

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

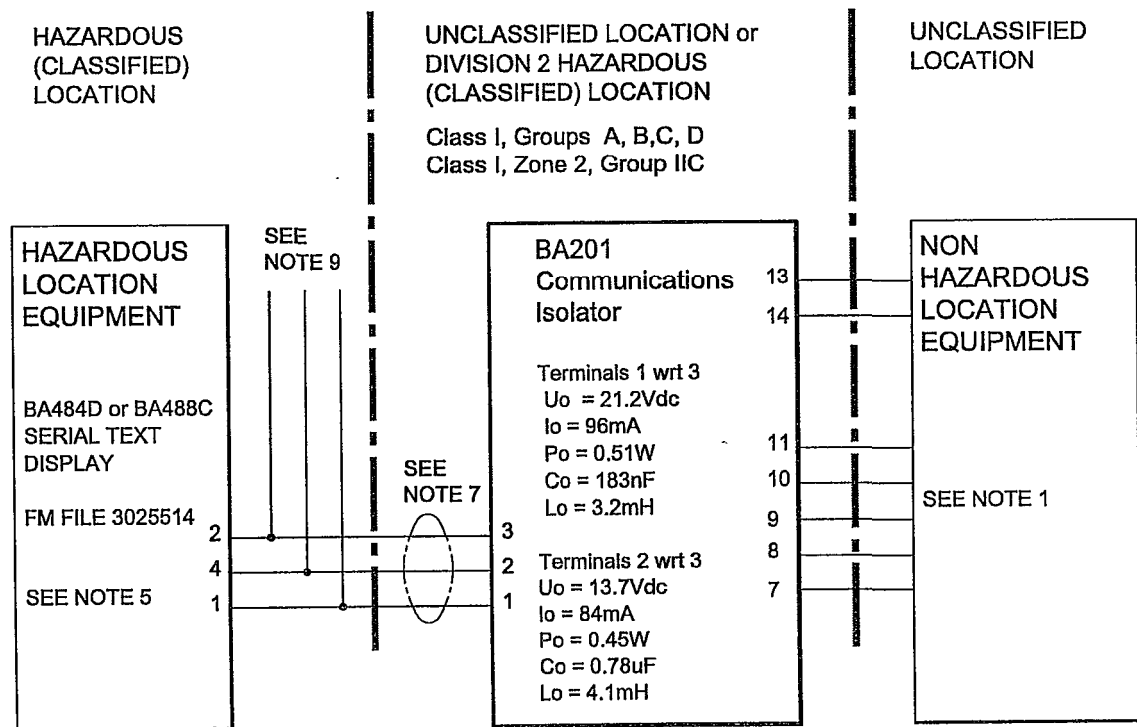
Iss.	Date	Modification	Ckd.	Appd.	Drawn	Checked	Scale
1	10.05 2007	See adjacent record			RC		N/A
2	11.12 2007	Lo 0.41 > 1mH					
Title					Drawing No.		
FM Approvals Control Drawing for BA201 Communications Isolator					Sheet 1 of 3 CI201-12		

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:

Ui	equal to or greater than	Uo or Vt
li	equal to or greater than	Io or It
Lcable + Li	equal to or less than	Lo
Ccable + Ci	equal to or less than	Co

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. | Lcable | equal to or less than | 4.1mH |
| | Ccable | equal to or less than | 780nF |

- | | | | |
|----|--------------------------------|-----------------------|-------------------|
| 7. | For terminals 1 and 3 of BA201 | | |
| | Lcable | equal to or less than | 3.2mH – sum of Li |
| | Ccable | equal to or less than | 183nF – sum of Ci |

For terminals 2 and 3 of BA201			
Lcable	equal to or less than		4.1mH
Ccable	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.		Modification	Date	Iss.	Date	Modification	Ckd.	Appd.
1		See adjacent record	10.05 2007					
2		Lcable 0.41 > 4.1mH (x2), Lcable 0.32 > 3.2mH	11.12 2007					

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<p>Title</p> <p style="text-align: center;">FM Approvals Control Drawing for BA201 Communications Isolator</p>	<p>Drawn</p> <p style="text-align: center;">RC</p>	<p>Checked</p>	<p>Scale</p> <p style="text-align: center;">N/A</p>
<p>Drawing No.</p> <p>Sheet 3 of 3</p>		<p style="font-size: 24pt; font-weight: bold;">C1201-12</p>	