British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Certificate of Conformity

1

2 **BAS No. Ex 98E2203**

3 This certificate is issued for the intrinsically safe electrical system:

AN MTL8000 I/O SERIES SYSTEM WITH I.S. FIELD TERMINALS

4 Submitted for certification by:

MEASUREMENT TECHNOLOGY LTD
of Power Court, Luton, Bedfordshire, LU1 3JJ

5 This electrical system and any acceptable variation thereto is specified in the Schedule to this Certificate and the documents therein referred to.

6 BASEEFA being an Approved Certification Body in accordance with Article 14 of the Council Directive of the European Communities of 18 December 1975 (76/117/EEC) certifies that the system has been found to comply with harmonised European Standards:

EN50 039: 1980

and has successfully met the examination and test requirements recorded in confidential Report number:

98(C)0333 dated 11 December 1998

7 The system is coded:

EEx ia IIC (-40°C≤Ta≤+70°C)

8 It is the responsibility of the system certificate holder to supply the relevant documentation to the installer of the intrinsically safe electrical system referred to in this certificate.

The installer has the responsibility to ensure that the system conforms to the specification laid down in the Schedule to this certificate and has satisfied routine verifications and tests specified therein.

9 This system may be marked with the Distinctive Community Mark specified in Annex II to the Commission Directive of 16 January 1984 (Doc 84/47/EEC). A facsimile of this mark is printed on sheet 1 of this certificate.

File No: EECS 0703/02/259

Sheet 1 of 3

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

I M CLEARE
DIRECTOR

11 December 1998

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the system may be used in particular industries or circumstances. A system is an assembly of apparatus (all of which are subject to certification and licensing requirements in their own right) and is therefore not listed on an EECS Manufacturing Licence.

NATIONAL ACCREDITATION OF CERTIFICATION BODIES
Registration Number 020
The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 020.

HSE
Health & Safety Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Certificate of Conformity BAS No. Ex 98E2203

SYSTEM DESCRIPTION

An MTL8000 I/O Series System with I.S. Field Terminals comprising of:-

1. Apparatus located in the non-hazardous area (safe area).

   1.1 An MTL8000 I/O Node with I.S. Field Terminals to BASEEFA Certificate No. BAS98ATEX7202 and coded [EEx ia] IIC in an ambient temperature of -40°C to +70°C.

   1.2 Connections to the hazardous area are made via the following I/O modules and field terminals:-

   i) An 8215-DO-IS, 4-Channel IS DO, solenoid driver to Component Certificate No. BAS98ATEX7204U. Terminations will be made via either an 8621-FT-IS, IS field terminals or an 8622-FT-IS, IS field terminal, loop-disconnect to Component Certificate No. BAS98ATEX7211U.

   ii) An 8204-AO-IS, 8-Channel IS AO, 4-20mA to Component Certificate No. BAS98ATEX7205U. Terminations will be made via either an 8621-FT-IS, IS field terminals or an 8622-FT-IS, IS field terminal, loop-disconnect to Component Certificate No. BAS98ATEX7211U.

   iii) An 8220-DI-IS, 16-Channel IS DI, switch/proximity detector or 8220-DI-IS, 8-Channel IS DI, switch/proximity detector to Component Certificate No. BAS98ATEX7206U. Terminations will be made via an 8624-FT-IS, IS field terminal, 8-channel DI to Component Certificate No. BAS98ATEX7211U

   iv) An 8201-HI-IS, 8-Channel IS AI, 4-20mA with HART to Component Certificate No. BAS98ATEX7207U. Terminations will be made via either an 8621-FT-IS, IS field terminals or an 8622-FT-IS, IS field terminal, loop-disconnect to Component Certificate No. BAS98ATEX7211U

   1.3 The MTL 8000 I/O Node with I.S. Field Terminals is to be supplied from apparatus which is unspecified except that it must not be supplied from nor contain in normal or abnormal conditions a source of potential with respect to earth in excess of 250 volts r.m.s. or 250 volts d.c.

2. Apparatus which may be located in the Hazardous Area

   2.1 Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of Clause 5.4 of EN50020: 1994. The PRTs and resistors must have a surface area of between 20mm^2 and 10cm^2. They must be provided with a degree of protection of at least IP20, be installed in accordance with the requirements of clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.

Certificate of Conformity BAS No. Ex 98E2203

3. Permissible Interconnecting Cables.

3.1 The capacitance and either the inductance or the inductance to resistance ratio (L/R) of the hazardous area cables must not exceed the load parameter values detailed in the individual Component Certificates for each individual I/O module.

3.2 Wiring to terminals of the appropriate I/O module may be achieved by separate cables or by separate circuits within a Type A or Type B multicore cable (as defined in clause 5.3 of EN50 039) subject to the following:-

a. The circuit to be individually screened when used within a Type A multicore cable.

b. The peak voltage of any other circuit within a Type B multicore cable must not exceed 60V.

DRAWINGS

Number	Sheet	Issue	Date	Description
*SCI-784	1	3	12.98	Common Installation Drawing
*SCI-784	2	3	12.98	Common Installation Drawing
*SCI-784	3	3	12.98	Common Installation Drawing
SCI-784	4	3	12.98	System Information
SCI-785	1	3	12.98	8201 System
SCI-785	2	3	12.98	8201 System
SCI-786	1	3	12.98	8204 System
SCI-786	2	3	12.98	8204 System
SCI-787	1	3	12.98	8215 System
SCI-787	2	3	12.98	8215 System
SCI-788	1	3	12.98	8220 System
SCI-788	2	3	12.98	8220 System

Drawings marked * are held on BASEEFA Certificate No. BAS98ATEX7202

BASEEFA List Keywords

2ISOLBAR

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 98E2203/1

This is to certify that System Certificate number:

Ex 98E2203

held by:

MEASUREMENT TECHNOLOGY LTD

of:

Power Court, Luton, Bedfordshire, LU1 3JJ

for the:

MTL 8000 I/O SERIES SYSTEM WITH I.S. FIELD TERMINALS

is hereby extended to apply to the system designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 0703/02/259

Sheet 1 of 2

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. A system is an assembly of apparatus (all of which are subject to certification and licensing requirements in their own right) and is therefore not listed on an EECS Manufacturing Licence.

I M CLEARE
DIRECTOR
30 June 1999

NATIONAL ACCREDITATION OF CERTIFICATION BODIES
Registration Number 020
The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 020.

HSE
Health & Safety Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Supplementary Certificate BAS No. Ex 98E2203/1

VARIATION ONE

To permit the apparatus listed in Item 1.2 iii) of the original schedule to be extended to include the option of an 8623-FT-IS, IS Field Terminal, 16 Channel DI introduced at Variation One BAS98ATEX7211U/1.

DRAWINGS

Number	Sheet	Issue	Date	Description
*SCI-784	1	4	6.99	Common Installation Drawing
*SCI-784	2	4	6.99	Common Installation Drawing
*SCI-784	3	4	6.99	Common Installation Drawing
SCI-784	4	4	6.99	System Information

*These drawings are held on BASEEFA Certificate No BAS98ATEX7202/1

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 98E2203/2

This is to certify that System Certificate number:

Ex 98E2203

held by:

MEASUREMENT TECHNOLOGY LTD

of:

Power Court, Luton, Bedfordshire, LU1 3JJ

for the:

MTL 8000 I/O SERIES SYSTEM WITH I.S. FIELD TERMINALS

is hereby extended to apply to the system designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 0703/02/259

Sheet 1 of 2

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

I M CLEARE
DIRECTOR
18 April 2000

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. A system is an assembly of apparatus (all of which are subject to certification and licensing requirements in their own right) and is therefore not listed on an EECS Manufacturing Licence.

NATIONAL ACCREDITATION OF CERTIFICATION BODIES
Registration Number 020
The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 020.

HSE
Health & Safety Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Supplementary Certificate BAS No. Ex 98E2203/2

VARIATION TWO

To permit the apparatus listed in Item 1.2 of the original schedule to be extended to include the option of alternative modules;

(v) MTL8205-TI-IS, 8 Channel IS, Thermocouple Input, BASEEFA Component Certificate No BAS99ATEX7316U with the hazardous area terminations made by certified IS field terminals 8625-FT-IS Thermocouple Field Terminals, BASEEFA Component Certificate No BAS98ATEX7211U/4.

(vi) MTL8206-TI-IS, 8 Channel IS, RTD Input, BASEEFA Component Certificate No BAS99ATEX7316U with the hazardous area terminations made by certified IS field terminals 8626-FT-IS RTD Field Terminals, BASEEFA Component Certificate No BAS98ATEX7211U/4.

DRAWINGS

Number	Sheet	Issue	Date	Description
*SCI-784	1	5	1/00	Common Installation Drawing
*SCI-784	2	5	1/00	Common Installation Drawing
*SCI-784	3	5	1/00	Common Installation Drawing
*SCI-784	4	5	1/00	Common Installation Drawing
SCI-784	5	5	1/00	System Information
SCI-853	1	1	12/99	8205 System
SCI-853	2	1	12/99	8205 System
SCI-854	1	1	12/99	8206 System
SCI-854	2	1	12/99	8206 System

*These drawings are held on BAS98ATEX7202/2

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 98E2203/3

This is to certify that System Certificate number:

Ex 98E2203

held by:

MEASUREMENT TECHNOLOGY LIMITED

of:

Luton, Bedfordshire, LU1 3JJ

for the:

MTL8000 I/O SERIES SYSTEM WITH I.S. FIELD TERMINALS

is hereby extended to apply to the system designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 0703/02/259

Sheet 1 of 2

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

I M CLEARE
DIRECTOR

9 November 2000

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. A system is an assembly of apparatus (all of which are subject to certification and licensing requirements in their own right) and is therefore not listed on an EECS Manufacturing Licence.

NATIONAL ACCREDITATION OF CERTIFICATION BODIES
Registration Number 020
The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 020.

HSE
Health & Safety Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Supplementary Certificate BAS No. Ex 98E2203/3

VARIATION THREE

To permit drawing changes associated with changes to the MTL8000 I/O Node with Intrinsically Safe Field Terminals to BASEEFA Certificate No BAS98ATEX7202/3.

DRAWINGS

Number	Sheet	Issue	Date	Description
SCI-784	1 to 5	6	10.00	Common Installation Drawing

These drawings are held on BASEEFA Certificate No BAS98ATEX7202/3

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 98E2203/4

This is to certify that System Certificate number:

Ex 98E2203

held by:

MEASUREMENT TECHNOLOGY LIMITED

of:

Power Court, Luton, Bedfordshire, LU1 3JJ

for the:

MTL 8000 I/O SERIES SYSTEM WITH I.S. FIELD TERMINALS

is hereby extended to apply to the system designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 0703/02/259

Sheet 1 of 2

ELECTRICAL EQUIPMENT CERTIFICATION SERVICE EECS

I M CLEARE
DIRECTOR

15 December 2000

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances. Representation of equipment as "Certified" is valid only when the number of the prime certificate to which this certificate is a supplement is given on the relevant EECS Manufacturing Licence or Verification Certificate.

NATIONAL ACCREDITATION OF CERTIFICATION BODIES
Registration Number 020
The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 020.

HSE
Health & Safety Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire. SK17 9JN. United Kingdom
Tel: 01298 28000 Fax: 01298 28244

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Supplementary Certificate BAS No. Ex 98E2203/4

VARIATION FOUR

To permit the apparatus listed in Item 1.2 of the original schedule to be extended to include the option of an alternative module;

(v) MTL8223-PI-IS, 2 Channel Pulse Input Module, BASEEFA Component Certificate No BAS00ATEX7202U with the hazardous area terminations made by certified IS field terminals 8621-FT-IS, IS Field Terminals or 8622-FT-IS, IS Field Terminals, Loop Disconnect, BASEEFA Component Certificate No BAS98ATEX7211U.

DRAWINGS

Number	Sheet	Issue	Date	Description
*SCI-784	1	7	11/00	Common Installation Drawing
*SCI-784	2	7	11/00	Common Installation Drawing
*SCI-784	3	7	11/00	Common Installation Drawing
*SCI-784	4	7	11/00	Common Installation Drawing
SCI-784	5	7	11/00	System Information
SCI-929	1-5	1	11/00	8223 System

* These drawings are held on BAS98ATEX7202/4

British Approvals Service for Electrical Equipment in Flammable Atmospheres

Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 98E2203/5

This is to certify that System Certificate number:

Ex 98E2203

held by:

MEASUREMENT TECHNOLOGY LIMITED

of

Power Court, Luton, Bedfordshire, LU1 3JJ

for the:

MTL 8000 I/O SERIES SYSTEM WITH I.S. FIELD TERMINALS

is hereby extended to apply to the system designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 0703/02/259

Sheet 1 of 2

ELECTRICAL EQUIPMENT CERTIFICATION SERVICE EECS

I M CLEARE
DIRECTOR
17 September 2001

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the system may be used in particular industries or circumstances. A system is an assembly of apparatus (all of which are subject to certification and licensing requirements in their own right) and is therefore not listed on EECS Manufacturing Licence.

HSE Health & Safety Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: +44 (0)1298 28000 Fax: +44 (0)1298 28244
internet: www.baseefa.com e-mail: baseefa.info.eecs@hsl.gov.uk

UKAS PRODUCT CERTIFICATION 020

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Supplementary Certificate BAS No. Ex 98E2203/5

VARIATION FIVE

To permit the apparatus listed in Item 1.2 of the original schedule to be extended to include the option of an alternative module;

(viii) MTL8202-HO-IS, 8 Channel IS AO, 4-20mA with HART Module, BASEEFA Component Certificate No BAS01ATEX7185U with the hazardous area terminations made by certified IS field terminals 8621-FT-IS, IS Field Terminals or 8622-FT-IS, IS Field Terminals, Loop Disconnect, BASEEFA Component Certificate No BAS98ATEX7211U.

DRAWINGS

Number	Sheet	Issue	Date	Description
*SCI-784	1	8	05/01	Common Installation Drawing
*SCI-784	2	8	05/01	Common Installation Drawing
*SCI-784	3	8	05/01	Common Installation Drawing
*SCI-784	4	8	05/01	Common Installation Drawing
*SCI-784	5	8	05/01	Common Installation Drawing
SCI-784	6	8	05/01	System Information
SCI-940	1-2	1	05/01	8202 System

* These drawings are held on BAS98ATEX7202/6

British Approvals Service for Electrical Equipment in Flammable Atmospheres

Certificate of Conformity - Variation

SUPPLEMENTARY CERTIFICATE BAS No. Ex 98E2203/6

This is to certify that System Certificate number:

Ex 98E2203

held by:

MEASUREMENT TECHNOLOGY LIMITED

of

Luton, Bedfordshire, LU1 3JJ

for the:

MTL 8000 I/O SERIES SYSTEM WITH I.S. FIELD TERMINALS

is hereby extended to apply to the system designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate.

File No: EECS 0703/02/259

Sheet 1 of 2

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

I M CLEARE
DIRECTOR
14 December 2001

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the system may be used in particular industries or circumstances. A system is an assembly of apparatus (all of which are subject to certification and licensing requirements in their own right) and is therefore not listed on EECS Manufacturing Licence.

HSE Health & Safety Executive

Electrical Equipment Certification Service
Health and Safety Executive
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom
Tel: +44 (0)1298 28000 Fax: +44 (0)1298 28244
internet: www.baseefa.com e-mail: baseefa.info.eecs@hsl.gov.uk

UKAS PRODUCT CERTIFICATION 020

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Supplementary Certificate BAS No. Ex 98E2203/6

VARIATION SIX

To permit the apparatus listed in Item 1.2 of the original schedule to be extended to include the option of an alternative module;

(ix) MTL8230-AI-IS, 8 Channel IS Analogue Input Module, BASEEFA Component Certificate No BAS01ATEX7346U with the hazardous area terminations made by certified IS field terminals 8623-FT-IS, IS Field Terminals BASEEFA Component Certificate No BAS98ATEX7211U.

DRAWINGS

Number	Sheet	Issue	Date	Description
*SCI-784	1	9	9.01	Common Installation Drawing
*SCI-784	2	9	9.01	Common Installation Drawing
*SCI-784	3	9	9.01	Common Installation Drawing
*SCI-784	4	9	9.01	Common Installation Drawing
*SCI-784	5	9	9.01	Common Installation Drawing
SCI-784	6	9	9.01	System Information
SCI-941	1-3	1	9.01	8230 System

*These drawings are held on BAS98ATEX7202/7

Supplementary
Certificate Number
Ex 98E2203/7

Issued 13th November 2006

Certificate of Conformity - Variation

This is to certify that System Certificate number: **Ex 98E2203**

issued to: **Measurement Technology Limited**

of: **Luton, Bedfordshire, LU1 3JJ**

for the: **MTL8000 I/O Series System with IS Field Terminals**

is hereby extended to apply to the system conforming with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate

The Electrical Equipment Certification Service, retains responsibility for its original documentation. Baseefa is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate that it has issued.

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **0703**

Project File No. **06/0947**

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa (2001) Ltd
Registered in England No. 4305578 at the above address

Schedule

Description of the variation

Variation 7.1

To permit the system drawings to be updated, following the transfer of control of the extension cables from Certificate Number BAS98ATEX7210U to Certificate Number BAS98ATEX7202. The maximum number of I/O Modules is increased from 32 to 64 following the introduction of the MTL8729-CA-08 *-Module, 64-Address Carrier in BAS98ATEX7210U/2 and changes to the software. There are no other changes to the system.

Report No.

None

Drawings

Number	Sheet	Issue	Date	Description
*SCI-784	1 to 5	10	10.06	Common Installation Drawing
SCI-784	6	10	10.06	Common Installation Drawing

* These drawings are common to and are held with Certificate Number BAS98ATEX7202/8

Special Conditions for Safe Use

None

Supplementary
Certificate Number
Ex 98E2203/8

Issued 26 August 2008

Certificate of Conformity - Variation

This is to certify that System Certificate number: **Ex 98E2203/8**

issued to: **GE Fanuc Intelligent Platforms**

of: **Luton, Bedfordshire, LU2 8DL**

for the: **8000 I/O Series System with IS Field Terminals**

is hereby extended to apply to the system conforming with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate Ex 98E2203.

The Electrical Equipment Certification Service, retains responsibility for its original documentation. Baseefa is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate that it has issued.

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **6198**

Project File No. **08/0573**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

D BRearley

D BREARLEY

pp R S SINCLAIR

DIRECTOR
On behalf of
Baseefa

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

Schedule

Description of the variation

Variation 8.1

To permit minor changes to various drawings that do not affect the original assessment.

Report No.

None.

Drawings

Number	Sheet	Issue	Date	Description
SCI-784 #	1 to 6	11	6.08	8000 Series I/O Node with Intrinsically Safe Field Terminals Common Installation Drawing
SCI-785	1 to 2	4	7.08	Installation Drawing for the 8201-HI-IS 8-Channel Analogue Input Module, with HART
SCI-786	1 to 2	4	7.08	Installation Drawing for the 8204-AO-IS 8-Channel Analogue Output Module
SCI-787	1 to 2	4	7.08	Installation Drawing for the 8215-DO-IS 4-Channel Discrete Output Module, Solenoid Driver
SCI-788	1 to 2	4	7.08	Installation Drawing for the 8220-DI-IS Discrete Input, Switch/Proximity Detector I/O module
SCI-853	1 to 2	2	7.08	Installation Drawing for the 8205-TI-IS 8-Channel Temperature Input (Thermocouple) Module
SCI-854	1 to 2	2	7.08	Installation Drawing for the 8206-TI-IS 8-Channel Temperature Input (RTD) Module
SCI-929	1 to 5	2	7.08	Installation Drawing for the 8223-PI-IS 2-Channel Pulse Frequency Input Module
SCI-940	1 to 2	2	7.08	Installation Drawing for the 8202-HO-IS 8-Channel Analogue Output Module, 4-20mA with HART
SCI-941	1 to 3	2	7.08	Installation Drawing for the 8230-AI-IS

sheets 1 to 5 of this drawing are common to and held with BAS98ATEX7202/9.

Special Conditions for Safe Use

None.

Certificate of Conformity - Variation

This is to certify that System Certificate number: **Ex 98E2203/9**

issued to: **GE Intelligent Platforms**
(formerly GE Fanuc Intelligent Platforms)

of: **2500 Austin Drive, Charlottesville, Virginia 22911, USA**
(formerly Luton, Bedfordshire, LU2 8DL)

for the: **8000 I/O Series System with IS Field Terminals**

is hereby extended to apply to the system conforming with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate Ex 98E2203

The Electrical Equipment Certification Service, retains responsibility for its original documentation. Baseefa is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate that it has issued.

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **6623**

Project File No. **10/0571**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

pp R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

Schedule

Description of the variation

Variation 9.1

To permit minor drawing changes not affecting the original assessment.

Report No.

None.

Drawings

Number	Sheet	Issue	Date	Description
SCI-784*	1 to 6	12	2.10	8000 Series I/O Node with Intrinsically Safe Field Terminals Common Installation Drawing
SCI-785	1 & 2	5	2.10	Installation Drawing for the 8201-HI-IS 8-Channel Analogue Input Module, with HART
SCI-786	1 & 2	5	2.10	Installation Drawing for the 8204-AO-IS 8-Channel Analogue Output Module
SCI-787	1 & 2	5	2.10	Installation Drawing for the 8215-DO-IS 4-Channel Discrete Output Module, Solenoid Driver
SCI-788	1 & 2	5	2.10	Installation Drawing for the 8220-DI-IS Discrete Input, Switch / Proximity Detector I/O Module
SCI-853	1 & 2	3	2.10	Installation Drawing for the 8205-TI-IS 8-Channel Temperature Input (Thermocouple) Module
SCI-854	1 & 2	3	2.10	Installation Drawing for the 8206-TI-IS 8-Channel Temperature Input (RTD) Module
SCI-929	1 to 5	3	2.10	Installation Drawing for the 8223-PI-IS 2-Channel Pulse / Frequency Input Module
SCI-940	1 & 2	3	2.10	Installation Drawing for the 8202-HO-IS 8-Channel Analogue Output Module, 4-20mA with HART
SCI-941	1 to 3	3	2.10	Installation Drawing for the 8230-AI-IS

* Sheets 1 to 5 of this drawing are common to and held with BAS98ATEX7202/10.

Special Conditions for Safe Use

None.

Certificate of Conformity - Variation

This is to certify that System Certificate number:	**Ex 98E2203/10**
issued to:	**GE Intelligent Platforms**
of:	**2500 Austin Drive, Charlottesville, Virginia 22911, USA**
for the:	**8000 I/O Series System with IS Field Terminals**

is hereby extended to apply to the system conforming with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This Supplementary Certificate shall be held with the original Certificate Ex 98E2203

The Electrical Equipment Certification Service, retains responsibility for its original documentation. Baseefa is responsible only for the additional work relating to this supplementary certificate and any other supplementary certificate that it has issued.

This certificate may only be reproduced in its entirety, without any change, Schedule included.

Baseefa Customer Reference No. **6623**

Project File No. **11/0547**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

Schedule

Description of the variation

Variation 10.1

To permit minor drawing changes not affect the original assessment.

Report No.

None.

Drawings

Number	Sheet	Issue	Date	Description
SCI-784*	1 to 6	14	8.11	8000 Series I/O Node with Intrinsically Safe Field Terminals Common Installation Drawing
SCI-786	1 & 2	6	7.11	Installation Drawing for the 8204-AO-IS 8-Channel Analogue Output Module
SCI-853	1 & 2	4	8.11	Installation Drawing for the 8205-TI-IS 8-Channel Temperature Input (Thermocouple) Module

* Sheets 1 to 5 of this drawing are common to and held with BAS98ATEX7202/11.

Special Conditions for Safe Use

None.

Third Angle Projection

Do Not Scale

Dimensions in mm

BAS98ATEX7202/11
Ex 98E2203/10
Baseefa Certification Schedule Drawing

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Note

1. The system shown above represents a typical 8000 Series "Node". This comprises Unspecified Safe Area Apparatus (U.S.A.A.), a single Railbus Isolator, I/O modules, and all other necessary apparatus such as power supplies, carriers, carrier extenders, etc., A node has a maximum length of 6.8m (including interconnections) and may include up to 64 I/O modules. Provided they are fitted to the right-hand side of the Railbus Isolator in the above circuit, the relative positions of Power Supplies and the different types of carrier is optional.

2. Modules A,C and E may be replaced while the power is on. This is known as "hot swapping".

Iss	Date	Modification
13	7.11	See Sheets 2, 3 & 5.
12	2.10	First GE Intelligent Platforms issue.
11	6.08	First GE Fanuc issue.
10	10.06	Redrawn. Extension cables were "H". Maximum number of modules was 32. See also sheet 4. CDR06/006
9	9.01	SEE SHEETS 4,5,6.
8	5.01	SEE SHEETS 3,4,5,6.
7	11.00	SEE SHEETS 3,4,5.
6	10.00	SEE SHEET 2.
5	01.00	8205,8206,8625,8626 ADDED; DRAWING WAS 4 SHEETS.
4	6.99	SEE SHEET 2
3	12.98	
2	11.98	
1	10.98	
14	8.11	See sheet 5.

Certifying Authority : Baseefa

This document contains Certification Information and must not be modified without reference to the design authority.

Sheet 1 of 6

Scale N/A

Tolerance N/A

GE Intelligent Platforms

Title
8000 Series I/O Node with Intrinsically Safe Field Terminals
Common Installation Drawing

Drg. No
SCI-784

S-EDGE A3

Third Angle Projection

Do Not Scale

Dimensions in mm

NOTES

1. Apparatus to be supplied from source with a maximum nominal voltage of 36V which under abnormal conditions cannot be a source of potential with respect to earth in excess of 250V r.m.s. or 250V d.c.
2. The Node comprises the items shown in the table below.
3. Each I/O Module interfaces to the field via Field Terminal (See table below)
4. For specific output characteristics of individual I/O modules see appropriate component certificate.
5. A rotary keying system ensures compatability between I/O Modules and FTAs after installation is complete. At the time of installation the FTA rotary keys must be adjusted to match the pre-set keys on the mating I/O Module. See Table 2 for details of the key positions assigned to each I/O module.
6. I/O Module carriers types 8720-CA-04 and 8727-CA-08 are provided with connections to enable interfacing with earth leakage detection devices Details of permissible devices will be added by amendment to this drawing.
7. A Module Blanking cover 8420-BK-MO must be fitted to any permanently unoccupied location on an I/O Module Carrier. (Permanently unoccupied implies no I/O Module AND no FTA are intended for the particular location.)

8000 I/O Node with IS Field Terminals

REF	MAX QTY.	MODULE	REF	PERMISSIBLE FIELD TERMINALS FOR MODULE	CH. No. TERM	REF	MODULE CARRIER
A	1	8922-RB-IS, Railbus Isolator BAS98ATEX7208U		Not applicable	Not applicable	B	8723-CA-RB or 8725-CA-RB Railbus Carriers, Part of BAS98ATEX7208U
C	10	8920-PS-DC, IS Module Power Supply, dc input BAS98ATEX7209U		Not applicable	Not applicable	D	8724-CA-PS, IS Power Supply Carrier Part of BAS98ATEX7209U
E1	64	8215-DO-IS, 4-Channel IS DO, Solenoid Driver BAS98ATEX7204U	F1	8621-FT-IS, IS Field Terminal, standard 8622-FT-IS, IS Field Terminal, loop-disconnect BAS98ATEX7211U	1 1 & 3 2 5 & 7 3 9 & 11 4 13 & 15	G	8720-CA-04, 4 - Module Carrier, 8727-CA-08, 8 - Module Carrier, BAS98ATEX7210U 8729-CA-08, 8 - Module Carrier, BAS98ATEX7210U/2
E2		8204-AO-IS, 8 - Channel IS AO, 4-20mA BAS98ATEX7205U	F2	8621-FT-IS, IS Field Terminal, standard 8622-FT-IS, IS Field Terminal, loop-disconnect BAS98ATEX7211U	1 1 & 2 2 3 & 4 3 5 & 6 4 7 & 8 5 9 & 10 6 11 & 12 7 13 & 14 8 15 & 16		
E3		8220-DI-IS, 8 - Channel IS DI, switch/proximity detector 8220-DI-IS, 16 - Channel IS DI, switch/proximity detector BAS98ATEX7206U	F3	8624-FT-IS, IS Field Terminal, 8 - Channel DI BAS98ATEX7211U, and 8623-FT-IS, IS Field Terminal, 16-Channel DI BAS98ATEX7211U/1	1 1 & 2 2 3 & 4 3 5 & 6 4 7 & 8 5 9 & 10 6 11 & 12 7 13 & 14 8 15 & 16 9 17 & 18 10 19 & 20 11 21 & 22 12 23 & 24 13 25 & 26 14 27 & 28 15 29 & 30 16 31 & 32		
E4		8201-HI-IS, 8 - Channel IS AI, 4-20mA with HART BAS98ATEX7207U	F4	8621-FT-IS, IS Field Terminal, standard 8622-FT-IS, IS Field Terminal, loop-disconnect BAS98ATEX7211U	1 1 & 2 2 3 & 4 3 5 & 6 4 7 & 8 5 9 & 10 6 11 & 12 7 13 & 14 8 15 & 16		

BAS98ATEX7202/11
Ex 98E2203/10

Baseefa Certification Schedule Drawing

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Iss	Date	Modification
7	11.00	SEE SHEETS 3,4,5.
6	10.00	8725-CA-RB ADDED TO B.
5	01.00	TABLE ON THIS SHEET EXTENDED TO NEXT SHEET; DRAWING WAS 4 SHEETS
4	6.99	8623 & 8729 & DETAILS ADDED; TABLE NO.REMOVED
3	12.98	
2	11.98	
1	10.98	
11	6.06	First GE Fanuc issue.
10	10.06	SEE SHEETS 1, 4. CDR06/006
9	9.01	SEE SHEETS 4,5,6.
8	5.01	SEE SHEETS 3,4,5,6.
14	8.11	See sheet 5.
13	7.11	Max. quantity of modules was 32. See also sheets 3 & 5.
12	2.10	First GE Intelligent Platforms issue.

Scale N/A

Tolerance N/A

GE Intelligent Platforms

Title 8000 Series I/O Node with Intrinsically Safe Field Terminals
Common Installation Drawing
Certifying Authority : Baseefa

Drg. No SCI-784

S-EDGE A3

Third Angle Projection

Do Not Scale

Dimensions in mm

8000 I/O Node with IS Field Terminals

REF	MAX QTY.	MODULE	REF	PERMISSIBLE FIELD TERMINALS FOR MODULE	CH. No.	TERM	REF	MODULE CARRIER
E5	64	8202-HO-IS, 8-Channel IS AO, 4-20mA with HART BAS01ATEX7185U	F5	8621-FT-IS, IS Field Terminal, standard 8622-FT-IS, IS Field Terminal, loop disconnect BAS98ATEX7211U	1 2 3 4 5 6 7 8	1 & 2 3 & 4 5 & 6 7 & 8 9 & 10 11 & 12 13 & 14 15 & 16	G	8720-CA-04, 4 - Module Carrier, 8727-CA-08, 8 - Module Carrier, BAS98ATEX7210U 8729-CA-08, 8 - Module Carrier, BAS98ATEX7210U/2
E6		8205-TI-IS, 8-Channel IS THC/mV Input BAS99ATEX7316U	F6	8625-FT-IS, IS Field Terminal, Thermocouple 8-Channel BAS98ATEX7211U/4	1 2 3 4 5 6 7 8	1 & 2 3 & 4 5 & 6 7 & 8 9 & 10 11 & 12 13 & 14 15 & 16		
E7		8206-TI-IS, 8-Channel IS RTD/ Input BAS99ATEX7316U	F7	8626-FT-IS, IS Field Terminal, RTD 8-Channel BAS98ATEX7211U/4	1 2 3 4 5 6 7 8	1, 2, 17 and 18 3, 4, 19 and 20 5, 6, 21 and 22 7, 8, 23 and 24 9, 10, 25 and 26 11, 12, 27 and 28 13, 14, 29 and 30 15, 16, 31 and 32		
E8		8223-PI-IS, 2-Channel Pulse/Frequency Input Module BAS00ATEX7202U	F8	8621-FT-IS, IS Field Terminal, Standard 8622-FT-IS, IS Field Terminal, Loop Disconnect BAS98ATEX7211U	1 2	1, 2, 3, 4, 5, 11, 13, 14 6, 7, 8, 9, 10, 15, 16		

BAS98ATEX7202/11
Ex 98E2203/10
Baseefa Certification Schedule Drawing

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lss	Date	Modification
12	2.10	First GE Intelligent Platforms issue.
11	6.08	First GE Fanuc issue.
10	10.06	SEE SHEETS 1, 4. CDR06/006
9	9.01	SEE SHEETS 4,5,6.
8	5.01	8202-HO-IS ADDED. TABLE EXTENDED. DRAWING NOW 6 SHEETS.
7	11.00	8223-PI-IS ADDED.
6	10.00	SEE SHEET 2.
5	01.00	TABLE ON SHEET 2 EXTENDED ONTO THIS NEW SHEET; 8205,8625,8626 ADDED;
1	10.98	
14	8.11	See sheets 5.
13	7.11	Max. quantity of modules was 32. See also sheets 2 & 5.

Scale N/A

Tolerance N/A

Certifying Authority : Baseefa

GE Intelligent Platforms

Title: 8000 Series I/O Node with Intrinsically Safe Field Terminals Common Installation Drawing

Drg. No: SCI-784

S-EDGE

A3

Third Angle Projection

Do Not Scale

Dimensions in mm

8000 I/O Node with IS Field Terminals

REF	MAX QTY.	MODULE	REF	PERMISSIBLE FIELD TERMINALS FOR MODULE	CH. No. TERM	REF	MODULE CARRIER
E9		8230-AI-IS 8-Channel Analogue Input, 0-10V Potentiometer BAS01ATEX7346U	F10	8623-FT-IS, Field Terminal, 16-channel BAS98ATEX7211U	V+ V- Vo 1 18 17 2 2 20 19 4 3 22 21 6 4 24 23 8 5 26 25 10 6 28 27 12 7 30 29 14 8 32 31 16	G	8720-CA-04, 4-Module Carrier, 8727-CA-08, 8-Module Carrier, BAS98ATEX7210U, 8729-CA-08, 8-Module Carrier, BAS98ATEX7210U/2
H		8030-CE-RH, IS Carrier Extender, right-hand 8031-CE-LH, IS Carrier Extender, left-hand		BAS98ATEX7210U			

J

IS Carrier Extension Cable Assembly.

This cable is comprised of a 19-twisted-pair multicore cable, covered by a layer of heatshrink sleeving. The combined thickness of insulation provided by the multicore and heatshrink sleeve is greater than or equal to 1.0mm, each component providing a minimum of 0.33mm. The heatshrink sleeve is applied over the whole length of the multicore, to within 10mm of the connector at each end.
Suitable Assemblies are :- 8010-CC-XXX (where XXX defines the length in centimetres), 8011-CC-35 (0.35m long), 8012-CC-85 (0.85m long), 8013-CC-12 (1.2m long), 8014-CC-20 (2.0m long).
These cables do not need to carry Baseefa approval markings.

IS Power Extension Cable Assembly.

This cable is comprised of up to six separately insulated cores, covered by a layer of heatshrink sleeving. The combined thickness of insulation of any core and the heatshrink sleeve is greater than or equal to 1.0mm, each component providing a minimum of 0.33mm. The heatshrink sleeve is applied over the whole length of the insulated cores, to within 20mm of the connector at each end.
Suitable Assemblies are :- 8015-CC-XXX (where XXX defines the length in centimetres), 8016-CC-35 (0.35m long), 8017-CC-85 (0.85m long), 8018-CC-12 (1.2m long), 8019-CC-20 (2.0m long).
These cables do not need to carry Baseefa approval markings.

BAS98ATEX7202/11
Ex 98E2203/10
Baseefa Certification Schedule Drawing

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Iss	Date	Modification
12	2.10	First GE Intelligent Platforms issue.
11	6.08	First GE Fanuc issue.
10	10.06	IS Corner and Power Extension cables were part of section H, and carried Baseefa markings BAS98ATEX7210U. Also see sheet 1. CDR06/006
9	9.01	8230-AI-IS ADDED.
8	5.01	THIS SHEET ADDED FOR FUTURE USE.
14	8.11	See sheet 5.
13	7.11	See Sheets 2, 3 & 5.

Certifying Authority : Baseefa

This document contains Certification Information and must not be modified without reference to the design authority.

Sheet 4 of 6

Scale N/A

Tolerance N/A

GE Intelligent Platforms

Title
8000 Series I/O Node with Intrinsically Safe Field Terminals
Common Installation Drawing

Drg. No
SCI-784

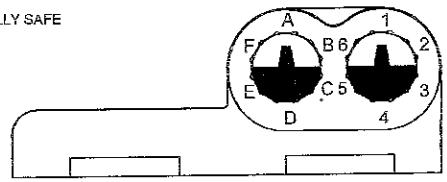
S-EDGE A3

Third Angle Projection

Do Not Scale

Dimensions in mm

INTRINSICALLY SAFE



FIELD TERMINAL

BAS98ATEX7202/11
Ex 98E2203/10

MODULE

Baseefa
Certification
Schedule
Drawing

FOR ASSIGNMENT OF KEY POSITIONS TO SPECIFIC APPLICATIONS
REFER TO THE ADJACENT TABLE ON THIS SHEET.

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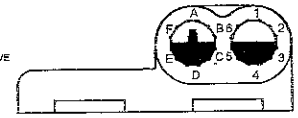
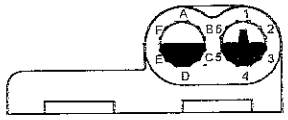
(CONFIGURATIONS BELOW ARE SHOWN FOR INFORMATION ONLY)

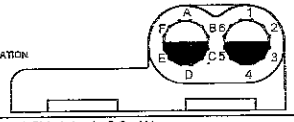
NON-INCENDIVE



NON-ARCING



SAFE AREA/
ORDINARY LOCATION



ASSIGNMENT OF I/O MODULE KEY POSITIONS

MODEL No.	DESCRIPTION OF FIELD TERMINALS	No. OF CHANNELS	LETTER KEY POSITION	NUMBER KEY POSITION
Reserved For Future Use		X	Y	Z
Reserved For Future Use		X	Y	Z
8201-HI-IS	28V, 93mA, 0.65W	8	A	1
8202-HO-IS	24.6V, 93mA, 0.57W	8	A	4
8204-AO-IS	24.6V, 93mA, 0.57W	8	A	4
8205-TI-IS	Ch.1,2,3,4,7 & 8 :- 16.4V, 79mA, 0.33W Ch.5 & 6 :- 1.5V, 1.3mA, 0.5mW	6 2 (Total = 8)	C	1
8206-TI-IS	Ch 1 to 8 Together :- 16.4V, 217mA, 0.9W	8	C	3
8215-DO-IS	25V, 110mA, 0.69W	4	B	5
8220-DI-IS	10.5V, 14mA, 0.04W	8 or 16	B	1
8223-PI-IS	All circuits of one channel combined 28.5V,93.2mA,0.639W	2	F	2
8230-AI-IS	15.75V, 20mA, 0.315W Non-linear	2	C	4

Iss	Date	Modification
14	8.11	8205-TI-IS Ch 5 & 6 were 1.0V, 1.1mA, 0.3mW.
13	7.11	8202 and 8204 were position B. 8204 was 23.3V, 86mA, 0.65W. See also sheets 2 & 3.
12	2.10	First GE Intelligent Platforms issue.
11	6.08	First GE Fanuc issue.
10	10.06	See sheets 1 & 4. CDR06/008
9	9.01	8230-AI-IS ADDED.
8	5.01	8202-HO-IS ADDED. DRAWING NOW 6 SHEETS.
7	11.00	8223-PI-IS ADDED.
6	10.00	SEE SHEET 2.
5	01.00	WAS SHEET 2.WAS 4 SHEETS 8205,8206 ADDED TO TABLE.
4	6.99	TABLE NO. REMOVED; SEE ALSO SHEET2
3	12.98	
2	11.98	
1	10.98	

Scale N/A

Tolerance N/A

Certifying Authority : Baseefa

This document contains Certification Information and must not be modified without reference to the design authority.

Sheet 5 of 6

GE Intelligent Platforms

Title
8000 Series I/O Node with Intrinsically Safe Field Terminals
Common Installation Drawing

Drg. No
SCI-784

S-EDGE

A3

Third Angle Projection

Do Not Scale

Dimensions in mm

SYSTEM NOTES

1. The installation must comply with national requirements (eg in the UK BS EN60079-14)
2. For system information on individual I/O Modules see following drawings :-

MODULE	SYSTEM DRAWING
8201-HI-IS, 8 - Channel IS AI, 4-20mA with HART	SCI-785
8202-HO-IS, 8 - Channel IS AO, 4-20mA, with HART	SCI-940
8204-AO-IS, 8 - Channel IS AO, 4-20mA	SCI-786
8205-TI-IS, 8 - Channel THC/mV Input	SCI-853
8206-TI-IS, 8 - Channel IS RTD/ Input	SCI-854
8215-DO-IS, 4 - Channel IS DO, solenoid driver	SCI-787
8220-DI-IS, 16 - Channel IS DI, switch/proximity detector	SCI-788
8223-PI-IS, 2 - Channel Pulse/Frequency Input Module	SCI-929
8230-AI-IS, 8-Channel Analogue Input, 0-10V Potentiometer	SCI-941

3. The marking should normally appear on or adjacent to the principal item of electrical apparatus in the system or at the interface between the intrinsically safe and non-intrinsically safe circuits.

8000 I/O Series System
with Intrinsically Safe Field Terminals
BAS No Ex 98E2203

Ex 98E2203/10

Baseefa
Certification
Schedule
Drawing

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Iss	Date	Modification
14	8.11	See sheet 5.
13	7.11	See sheets 2, 3 & 5.
12	2.10	First GE Intelligent Platforms issue.
11	6.08	First GE Fanuc issue.
10	10.06	See sheets 1 & 4. CDR06/006
9	9.01	8230-AI-IS ADDED.
8	5.01	8202-HO-IS ADDED. DRAWING NOW 6 SHEETS.
7	11.00	8223-PI-IS ADDED.
6	10.00	SEE SHEET 2.
5	01.00	WAS SHEET 4; DRAWING WAS 4 SHEETS.
4	6.99	SEE SHEET 2
3	12.98	
2	11.98	
1	10.98	

Scale N/A

Tolerance N/A

Certifying Authority : Baseefa

This document contains Certification Information and must not be modified without reference to the design authority.

GE Intelligent Platforms

Title: 8000 Series I/O Node with Intrinsically Safe Field Terminals Common Installation Drawing

Drg. No: SCI-784

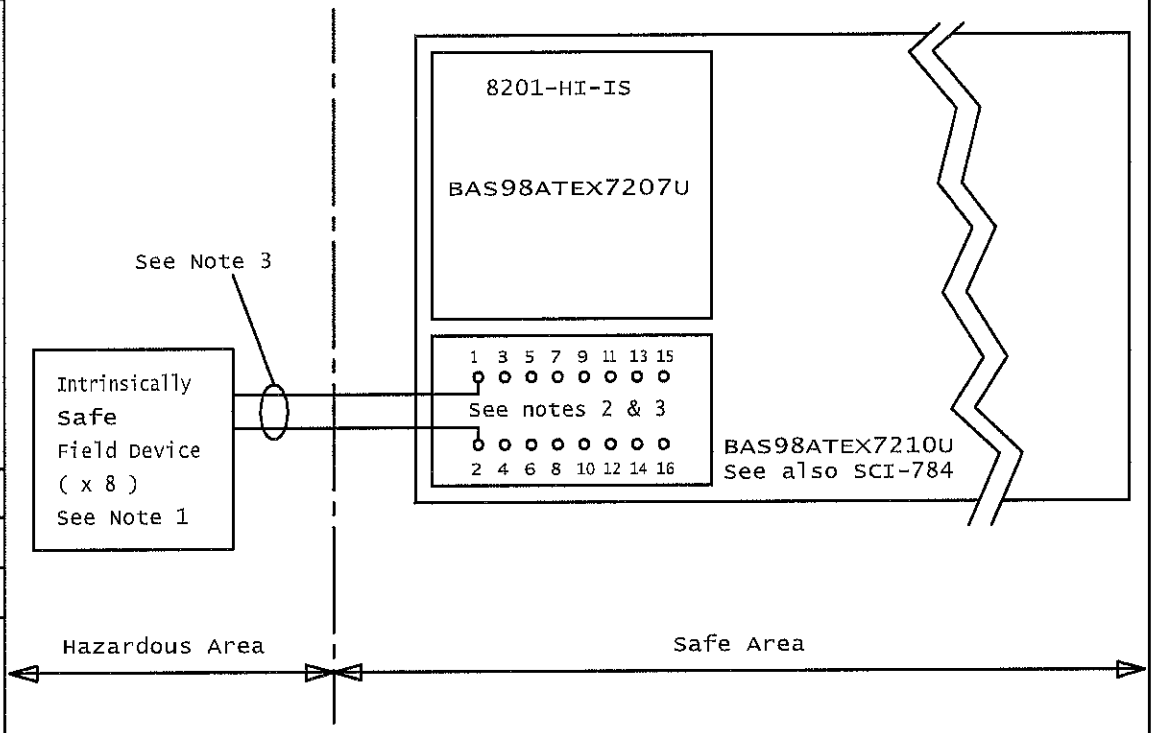
Sheet 6 of 6

S-EDGE

A3

Iss	Date	Drn	Modification	Ckd
5	2.10	JES	First GE Intelligent Platforms issue.	

Dimensions in mm Do Not Scale Third Angle Projection



Notes

1. Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1977 or Clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm² . They must be provided with a degree of protection of at least IP20, to be installed in accordance with the requirements of clause 5 of EN50 020: 1977 or clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.
2. The pair of terminals on the Field Terminal Assembly used by each channel is defined on SCI784. Each pair of terminals has the following safety description.
   Uo ≤ 28Vdc Io ≤ 93mA Po ≤ 0.65W

Ex 98E2203/9

Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification	Ckd
1	10.98	CAT		
2	11.98	SM		
3	12.98	SM		
4	7.08	CMB	First GE Fanuc issue.	

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 2
Title Installation Drawing for the 8201-HI-IS 8-Channel Analogue Input Module, with HART	Drg. No. SCI-785

A4

3. The parameters of loads/cables which may be connected to each pair of terminals are given in the table below.

Group	Capacitance (μF)	Inductance (mH) or L/R Ratio (μH/Ω)	
IIA	2.15	36.02	444
IIB	0.65	17.72	210
IIC	0.083	4.3	56

4. Wiring to each pair of terminals may be achieved using separate cables or means of separate circuits within Type A or Type B multicore cables (as defined in clause 5.3 of EN50039) subject to the following:-
   a) Each circuit within a Type A multicore cable is to be individually screened;
   b) The peak voltage of any circuit within a Type B multicore cable must not exceed 60V.

Ex 98E2203/9
Baseefa
Certification
Schedule
Drawing

M. Munro

M. Munro

Iss	Date	Drn	Modification
1	10.98	CAT	
2	11.98	SM	
3	12.98	SM	First GE Fanuc issue.
4	7.08	CMB	First GE Intelligent Platforms issue.
5	2.10	JES	

Certifying Authority: BASEEFA

Tolerance unless otherwise stated ± N/A

Title: Installation Drawing for the 8201-HI-IS 8- Channel Analogue Input Module with HART

Scale N/A

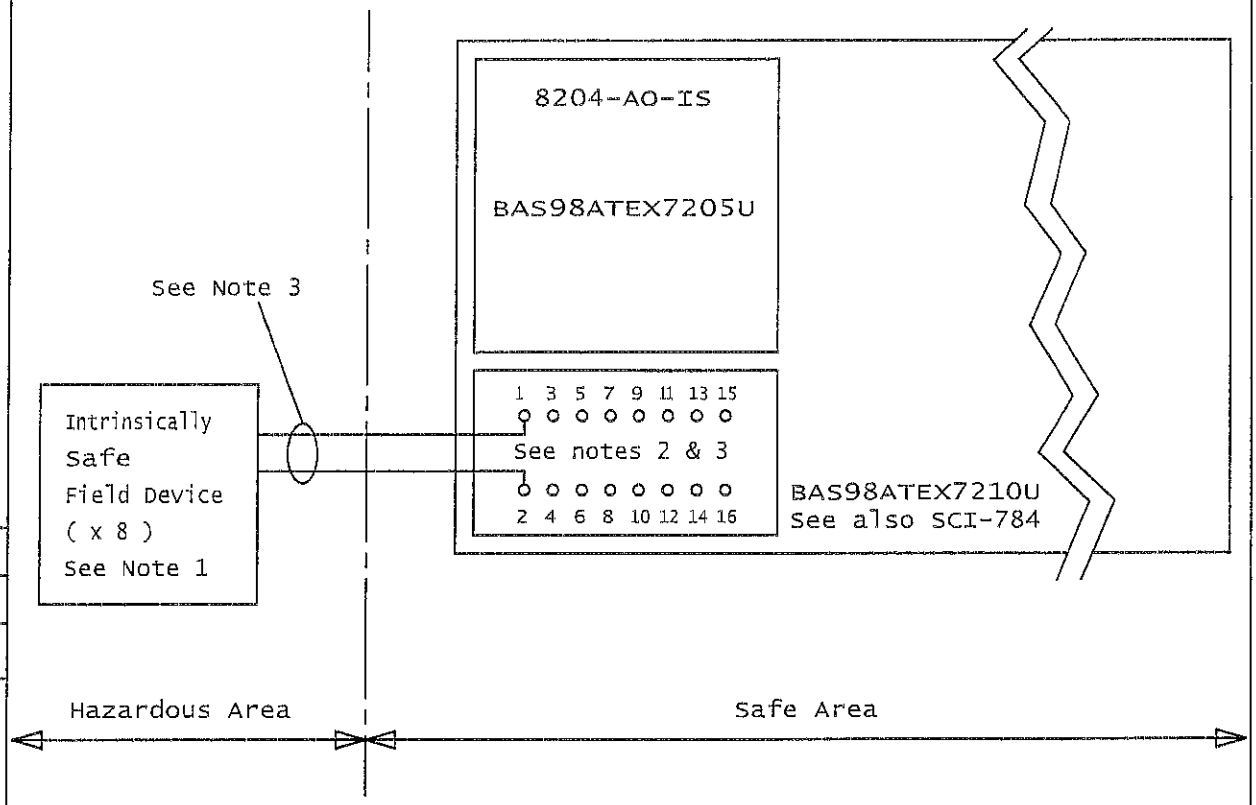
Sheet 2 of 2

Drg. No. SCI-785

A4

Iss	Date	Drn	Modification	Ckd
6	7.11	JES	Safety Description (Uo, Io, Po) modified as BAS98ATEX7205U/7.	AW

Dimensions in mm Do Not Scale Third Angle Projection



Notes

1. Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1977 or Clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm² . They must be provided with a degree of protection of at least IP20, to be installed in accordance with the requirements of clause 5 of EN50 020: 1977 or clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.
2. The pair of terminals on the Field Terminal Assembly used by each channel is defined on SCI784. Each pair of terminals has the following safety description.
   Uo ≤ 24.6Vdc, Io ≤ 93mA, Po ≤ 0.57W

Ex 98E2203/10

Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification	Ckd
1	10.98	CAT	First GE Fanuc issue.	
2	11.98	SM		
3	12.98	SM		
4	7.08	CMB		
5	2.10	JES	First GE Intelligent Platforms issue.	

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 2
Title Installation Drawing for the 8204-AO-IS 8-Channel Analogue Output Module	Drg. No. SCI-786

A4

3. The parameters of loads/cables which may be connected to each pair of terminals are given in the table below.

Group	Capacitance (µF)	Inductance (mH) or L/R Ratio (µH/W)	
IIA	3.12	36	505
IIB	0.87	17.7	239
IIC	0.116	4.3	64

4. Wiring to each pair of terminals may be achieved using separate cables or means of separate circuits within Type A or Type B multicore cables (as defined in clause 5.3 of EN50039) subject to the following:-

   a) Each circuit within a Type A multicore cable is to be individually screened;

   b) The peak voltage of any circuit within a Type B multicore cable must not exceed 60V.

Ex 98E2203/10

Baseefa Certification Schedule Drawing

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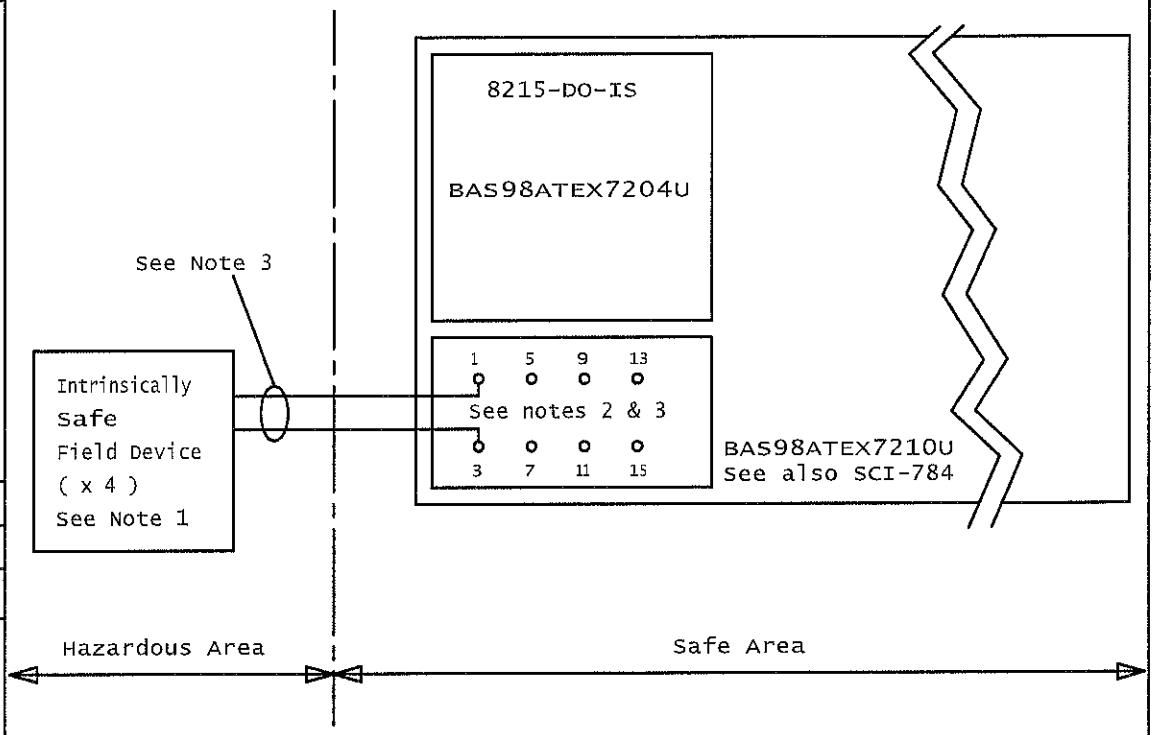
Iss	Date	Drn	Modification	Ckd
6	7.11	JES	Load parameters (Co, Lo, L/R) modified as BAS98ATEX7205U/7.	AW

Iss	Date	Drn	Modification	Ckd
1	10.98	CAT		
2	11.98	SM		
3	12.98	SM		
4	7.08	CMB	First GE Fanuc Issue.	
5	2.10	JES	First GE Intelligent Platforms issue.	

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 2 of 2
Title Installation Drawing for the 8204-AO-IS 8- Channel Analogue Output Module	Drg. No. SCI-786

A4

Dimensions in mm Do Not Scale Third Angle Projection



Notes

1. Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1977 or Clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm² . They must be provided with a degree of protection of at least IP20, to be installed in accordance with the requirements of clause 5 of EN50 020: 1977 or clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.
2. The pair of terminals on the Field Terminal Assembly used by each channel is defined on SCI784. Each pair of terminals has the following safety description.
   Uo ≤ 25Vdc Io ≤ 110mA Po ≤ 0.69W

Ex 98E2203/9

Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification	Ckd
1	10.98	CAT		
2	11.98	SM		
3	12.98	SM		
4	7.08	CMB	First GE Fanuc issue.	
5	2.10	JES	First GE Intelligent Platforms issue.	

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 2
Title Installation Drawing for the 8215-DO-IS 4-Channel Discrete Output Module, Solenoid Driver	Drg. No. SCI-787

A4

Dimensions in mm | Do Not Scale | Third Angle Projection

3. The parameters of loads/cables which may be connected to each pair of terminals are given in the table below.

Group	Capacitance (µF)	Inductance (mH) or L/R Ratio (µH/Ω)	
IIA	2.97	26.12	432
IIB	0.840	13.02	205
IIC	0.110	3.08	53

4. Wiring to each pair of terminals may be achieved using separate cables or means of separate circuits within Type A or Type B multicore cables (as defined in clause 5.3 of EN50039) subject to the following:-
   a) Each circuit within a Type A multicore cable is to be individually screened;
   b) The peak voltage of any circuit within a Type B multicore cable must not exceed 60V.

Ex 98E2203/9
Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification
1	10.98	CAT	First GE Fanuc issue.
2	11.98	SM	
3	12.98	SM	
4	7.08	CMB	
5	2.10	JDS	First GE Intelligent Platforms issue.

Certifying Authority: BASEEFA

Tolerance unless otherwise stated ± N/A

Title: Installation Drawing for the 8215-DO-IS
8- Channel Discrete Output Module, Solenoid Driver

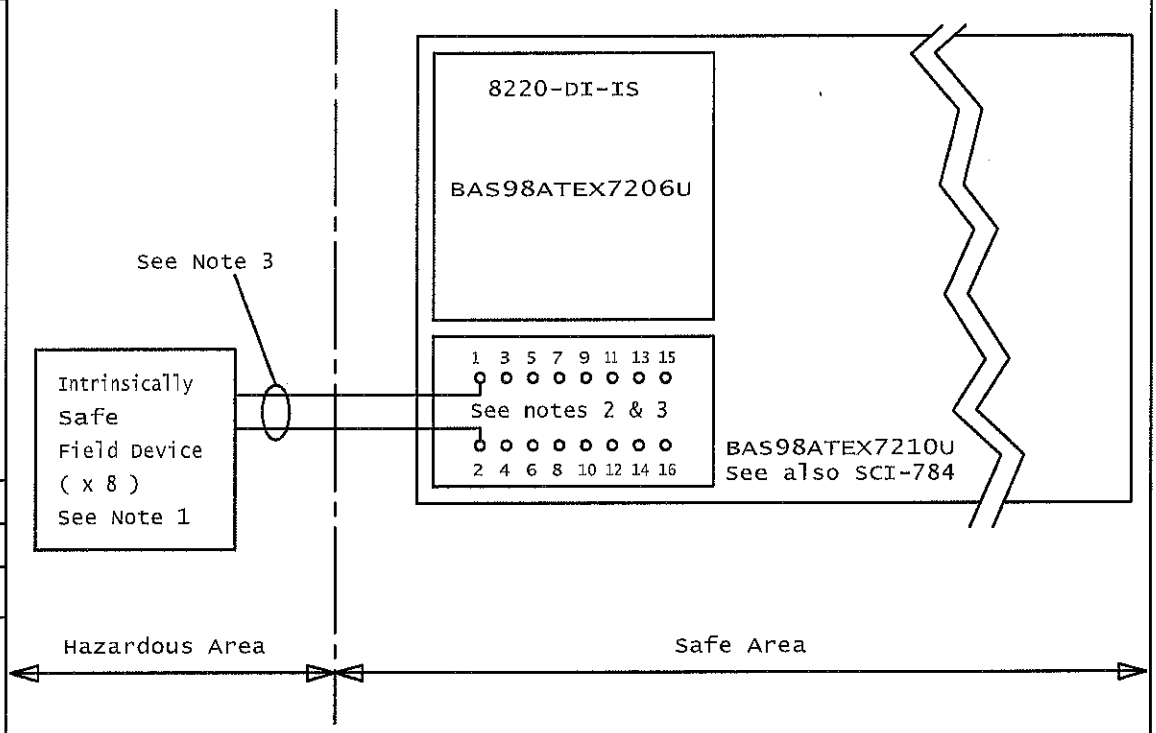
Scale N/A

Sheet 2 of 2

Drg. No. SCI-787

A4

Dimensions in mm | Do Not Scale | Third Angle Projection



Notes

1. Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1977 or Clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm² . They must be provided with a degree of protection of at least IP20, to be installed in accordance with the requirements of clause 5 of EN50 020: 1977 or clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.
2. The pair of terminals on the Field Terminal Assembly used by each channel is defined on SCI784. Each pair of terminals has the following safety description.
   Uo ≤ 10.5Vdc Io ≤ 14mA Po ≤ 0.04W

Ex 98E2203/9

Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification	Ckd
1	10.98	CAT		
2	11.98	SM		
3	12.98	SM	First GE Fanuc issue.	
4	7.08	CMS		
5	2.10	JES	First GE Intelligent Platforms issue.	

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 2
Title Installation Drawing for the 8220-DI-IS Discrete Input, Switch/Proximity Detector I/O Module	Drg. No. SCI-788

A4

Dimensions in mm | Do Not Scale | Third Angle Projection

3. The parameters of loads/cables which may be connected to each pair of terminals are given in the table below.

Group	Capacitance (μF)	Inductance (mH) or L/R Ratio (μH/Ω)	
IIA	75.0	1000	1333
IIB	16.8	680	1333
IIC	2.41	175	983

4. Wiring to each pair of terminals may be achieved using separate cables or means of separate circuits within Type A or Type B multicore cables (as defined in clause 5.3 of EN50039) subject to the following:-
   a) Each circuit within a Type A multicore cable is to be individually screened;
   b) The peak voltage of any circuit within a Type B multicore cable must not exceed 60V.

Ex 98E2203/9
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Certification
Schedule
Drawing

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Iss	Date	Drn	Modification
1	10.98	CAT	
2	11.98	SM	
3	12.98	SM	
4	7.08	CMB	First GE Fanuc issue.
5	2.10	JES	First GE Intelligent Platforms issue.

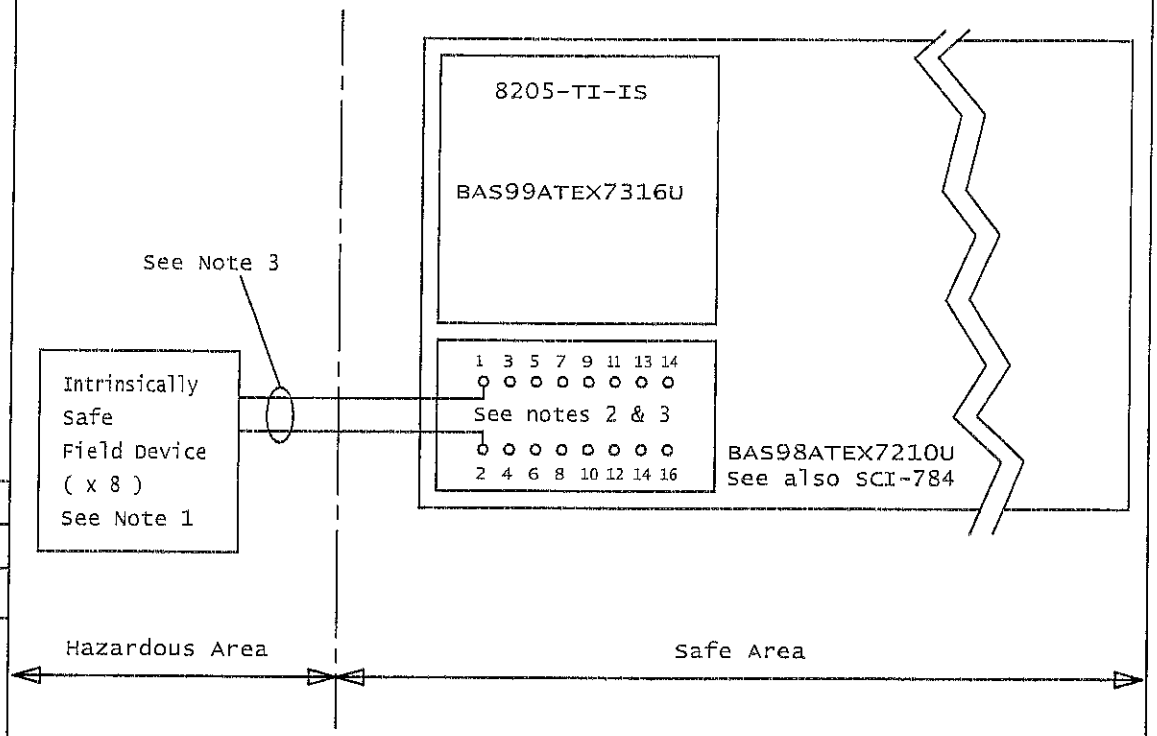
Certifying Authority: BASEEFA | Scale N/A

Tolerance unless otherwise stated ± N/A | Sheet 2 of 2

Title: Installation Drawing for the 8220-DI-IS Discrete Input, Switch/Proximity Detector I/O Module | Drg. No. SCI-788

A4

Dimensions in mm Do Not Scale Third Angle Projection



Notes

1. Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1977 or Clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm² . They must be provided with a degree of protection of at least IP20, to be installed in accordance with the requirements of clause 5 of EN50 020: 1977 or clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.
2. The pair of terminals on the Field Terminal Assembly used by each channel is defined on SCI-784.
   Safety descriptions are :-

   Ch. 1,2,3,4,7 & 8 (terminals 1-10 and 15 & 16)
   Uo ≤ 16.4V dc Io ≤ 79mA Po ≤ 0.33W

   Ch. 5 & 6 (terminals 11-14)
   Uo ≤ 1.5V Io ≤ 1.3mA Po ≤ 0.5mW

Ex 98E2203/10
Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification	Ckd
1	12.99	ACW	First GE Fanuc issue.	
2	7.08	CMB	First GE Intelligent Platforms issue.	
3	2.10	JES	Channels 5 & 6 were 1.0V, 1.1mA, 0.3mW	KTM
4	8.11	JES		

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 2
Title Installation Drawing for the 8205-TI-IS 8-Channel Temperature Input (Thermocouple) Module	Drg. No. SCI-853

A4

Dimensions in mm | Do Not Scale | Third Angle Projection

3. The parameters of loads/cables which may be connected to the terminals of each channel are given in the tables below.

TABLE 1 (Channels 1,2,4,7 & 8)

Group	Capacitance (µF)	Inductance (mH) or L/R Ratio (µH/Ω)	
IIC	0.41	5.8	62
IIB	2.49	23.8	227
IIA	9.98	49.1	480

TABLE 2 (Channels 5 & 6)

Group	Capacitance (µF)	Inductance (mH) or L/R Ratio (µH/Ω)	
IIC	100	1,000	1,100
IIB	1,000	1,000	1,100
IIA	1,000	1,000	1,100

4. Wiring to each pair of terminals may be achieved using separate cables, or by means of separate circuits within Type A or Type B multicore cables (as defined in clause 5.3 of EN50039) subject to the following:-

   a) Each circuit within a Type A multicore cable is to be individually screened;
   b) The peak voltage of any circuit within a Type B multicore cable must not exceed 60V.

Ex 98E2203/10

Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification	Ckd
1	12.99	ACW	First GE Fanuc issue.	
2	7.08	CMB	First GE Intelligent Platforms issue.	
3	2.10	JES	See sheet 1.	KTM
4	8.11	JES		

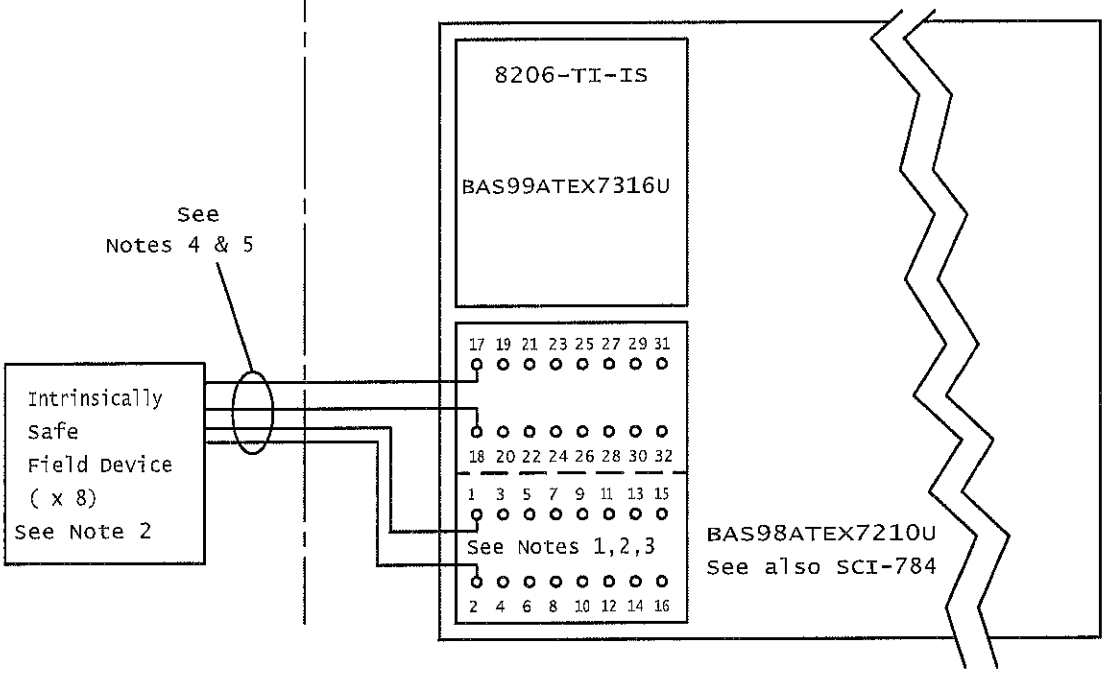
Certifying Authority: BASEEFA | Scale N/A

Tolerance unless otherwise stated ± N/A | Sheet 2 of 2

Title: Installation Drawing for the 8205-TI-IS 8-Channel Temperature Input (Thermocouple) Module | Drg. No. SCI-853

A4

Dimensions in mm | Do Not Scale | Third Angle Projection



NOTES

1. Each channel comprises four terminals as detailed in the table below.

Ch. No.	Terminals
1	1, 2, 17 and 18
2	3, 4, 19 and 20
3	5, 6, 21 and 22
4	7, 8, 23 and 24
5	9, 10, 25 and 26
6	11, 12, 27 and 28
7	13, 14, 29 and 30
8	15, 16, 31 and 32

Ex 98E2203/9
Baseefa
Certification
Schedule
Drawing

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2. Devices, i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1997, or clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm². They must be provided with a degree of protection of at least IP20, be installed in accordance with the requirements of clause 6 of EN50020:1994 or clause 5 of EN50 020:1977 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or the frame of the equipment, without breakdown.
Such devices do not need to be certified or marked.

Iss	Date	Drn	Modification
1	12.99	ACW	
2	7.08	CMB	First GE Fanuc issue.
3	2.10	JES	First GE Intelligent Platforms issue.

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 2
Title Installation Drawing for the 8206-TI-IS 8-Channel Temperature Input (RTD) Module	Drg. No. SCI-854

A4

Dimensions in mm | Do Not Scale | Third Angle Projection

NOTES

3. The safety description for all channels (connected together) is:-

Uo ≤ 16.4V dc Io ≤ 217mA Po ≤ 0.9W

4. The parameters of all loads/cables which may be attached to the output terminals are given in the table below.

Group	Capacitance (µF)	Inductance (mH) or L/R Ratio (µH/Ω)	
IIC	0.389	0.39	20
IIB	2.47	1.50	90
IIA	9.96	4.20	182

5. Wiring to field devices may be achieved using either separate cables or separate circuits within Type A or Type B multicore cables, (as defined in clause 5.3 of EN50039) subject to the following:-

a) each circuit within a Type A multicore is to be individually screened:
b) the peak voltage of any circuit within a Type B multicore must not exceed 60V.

Ex 98E2203/9

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Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification
1	12.99	ACW	
2	7.08	CMB	First GE Fanuc issue.
3	2.10	JES	First GE Intelligent Platforms issue.

Certifying Authority: BASEEFA

Tolerance unless otherwise stated ± N/A

Title: Installation Drawing for the 8206-TI-IS 8-Channel Temperature Input (RTD) Module

Scale N/A

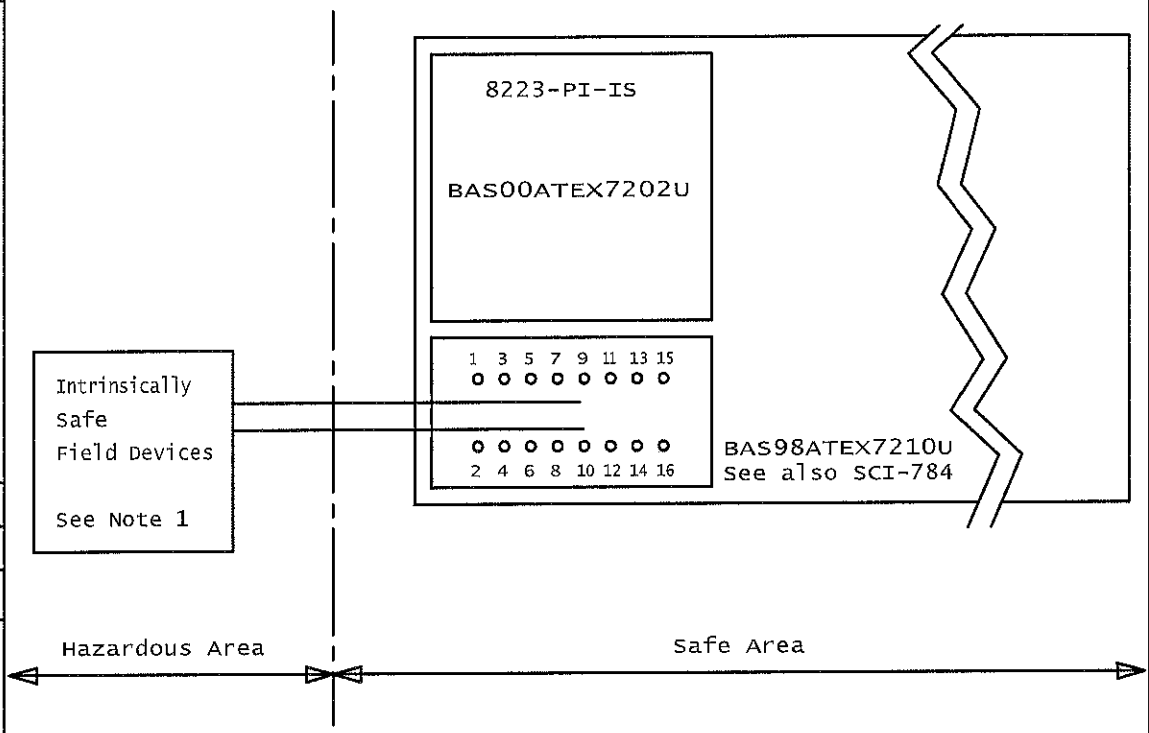
Sheet 2 of 2

Drg. No. SCI-854

A4

Iss	Date	Drn	Modification
1	11.00	ACW	First GE Fanuc issue.
2	7.08	CMB	First GE Intelligent Platforms issue.
3	2.10	JES	

Dimensions in mm Do Not Scale Third Angle Projection



GENERAL APPARATUS DISPOSITION

(See Individual Connection Arrangements Below)

Notes

1. Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1977 or Clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm². They must be provided with a degree of protection of at least IP20, to be installed in accordance with the requirements of clause 5 of EN50 020: 1977 or clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.

Ex 98E2203/9

Baseefa Certification Schedule Drawing

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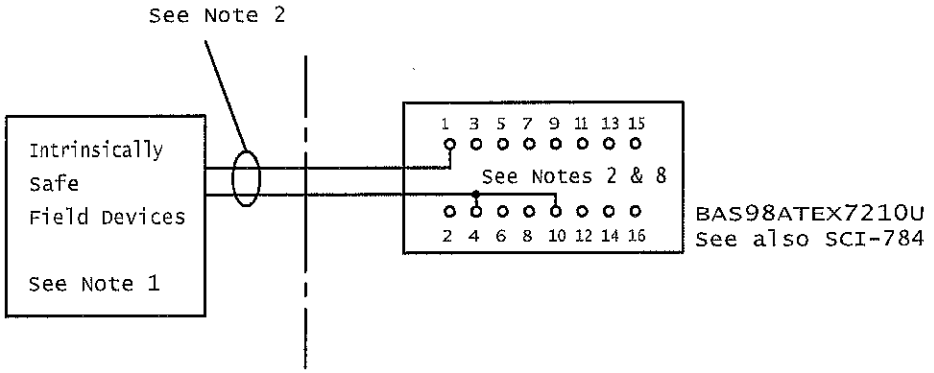
Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 5
Title Installation Drawing for the 8223-PI-IS 2-Channel Pulse/Frequency Input Module	Drg. No. SCI-929

A4

Iss	Date	Drn	Ckd	Modification
1	11.00	ACW		First GE Fanuc issue.
2	7.08	CMB		First GE Intelligent Platforms issue.
3	2.10	JES		

Dimensions in mm Do Not Scale Third Angle Projection



2. The connection arrangement shown above is for Channel 1 of the 8223-PI-IS. For Channel 2 in the same configuration the connection to Terminal 1 must replaced by a connection to Terminal 7.

The connection arrangements for both Channels have the following parameters.

Uo ≤ +/- 1.1V Io ≤ 53mA Po ≤ 15mW

The load/cable parameters shown below must not be exceeded.

Group	Capacitance (µF)	Inductance (mH) or	L/R Ratio (µH/Ω)
IIC	1000	13.1	2436
IIB	1000	39.3	7308
IIA	1000	104.8	19488

Ui = 1.1V Ii = 50mA Ci = 0µF Li = 5µH

Ex 98E2203/9
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Certification
Schedule
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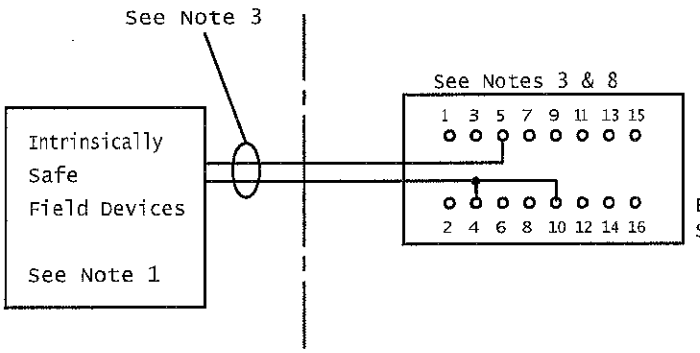


3. The connection arrangement shown above is for Channel 1 of the 8223-PI-IS. For Channel 2 in the same configuration the connection to Terminal 5 must replaced by a connection to Terminal 6.

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 2 of 5
Title Installation Drawing for the 8223-PI-IS 2-Channel Pulse/Frequency Input Module	Drg. No. SCI-929

A4

Note 3 (continued)

The connection arrangements for both Channels have the following parameters.

Uo ≤ 27.4V Io ≤ 93.2mA Po ≤ 639mW

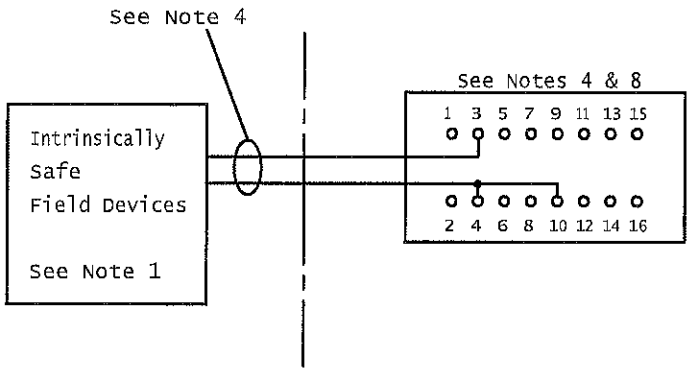
Ci = 0µF Li = 10µH

The load/cable parameters shown below must not be exceeded.

Group	Capacitance (µF)	Inductance (mH) or	L/R Ratio (µH/Ω)
IIC	0.087	4.2	56
IIB	0.261	12.6	168
IIA	0.696	33.6	448

Ex 98E2203/9

Baseefa Certification Schedule Drawing



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BAS98ATEX7210U
See also SCI-784

4. The connection arrangement shown above is for Channel 1 of the 8223-PI-IS. For Channel 2 in the same configuration the connection to Terminal 3 must replaced by a connection to Terminal 9.

The connection arrangements for both Channels have the following parameters.

Uo ≤ 9.6V Io ≤ 25mA Po ≤ 57mW

The load/cable parameters shown in the following table must not be exceeded.

Group	Capacitance (µF)	Inductance (mH) or	L/R Ratio (µH/Ω)
IIC	3.6	56.6	191
IIB	10.8	208	744
IIA	28.8	419	868

Ui = 18.2V Pi = 333mW Ci = 0µF Li = 0mH

Iss	Date	Drn	Modification
1	11.00	ACW	First GE Fanuc issue.
2	7.08	CMB	First GE Intelligent Platforms issue.
3	2.10	JES	

Certifying Authority: BASEEFA

Scale N/A

Tolerance unless otherwise stated ± N/A

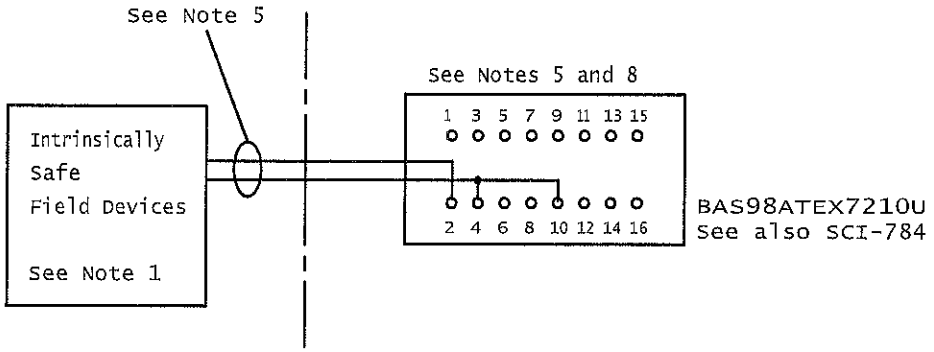
Sheet 3 of 5

Title Installation Drawing for the 8223-PI-IS
2- Channel Pulse/Frequency Input Module

Drg. No. SCI-929

A4

Dimensions in mm Do Not Scale Third Angle Projection



5. The connection arrangement shown above is for Channel 1 of the 8223-PI-IS. For Channel 2 in the same configuration the connection to Terminal 2 must replaced by a connection to Terminal 8.

   The connection arrangements for both Channels have the following parameters.

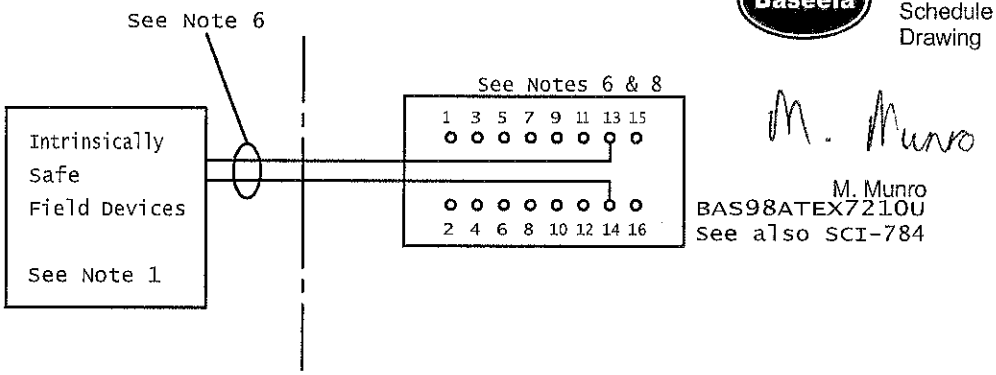
   Uo ≤ 9.6V Io ≤ 25mA Po ≤ 57mW

   The load/cable parameters shown below must not be exceeded.

Group	Capacitance (µF)	Inductance (mH) or	L/R Ratio (µH/Ω)
IIC	3.6	56.6	191
IIB	10.8	208	744
IIA	28.8	419	868

Ui = 18.2V Pi = 333mW Ci = 0µF Li = 0mH

Ex 98E2203/9
Baseefa Certification Schedule Drawing



6. The connection arrangement shown above is for Channel 1.
   To connect Channel 2 in the same configuration Tewminals 15 and 16 must be used.

   For both Channels 1 and 2 the following parameters apply.

   Uo = 0V Io = 0mA Po = 0mW
   Ui ≤ 30V Pi ≤ 333mW

   The load/cable parameters are determined by the circuit into which these terminals of the 8223-PI-IS are connected.

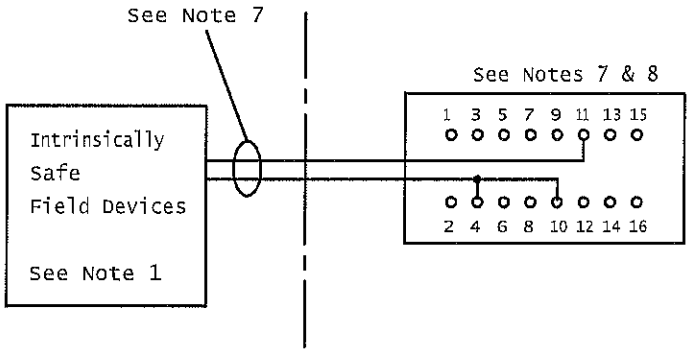
Iss	Date	Drn	Modification
1	11.00	ACW	First GE Panuc issue.
2	7.08	CMB	First GE Intelligent Platforms issue.
3	2.10	JES	

Ckd

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 4 of 5
Title Installation Drawing for the 8223-PI-IS 2-Channel Pulse/Frequency Input Module	Drg. No. SCI-929

A4

Dimensions in mm Do Not Scale Third Angle Projection



7. This configuration has the following parameters.

Uo ≤ 9.6V Io ≤ 25mA Po ≤ 57mW

The load/cable parameters shown below must not be exceeded.

Group	Capacitance (µF)	Inductance (mH) or	L/R Ratio (µH/Ω)
IIC	3.6	56.6	191
IIB	10.8	208	744
IIA	28.8	419	868

Ui = 18.2V Pi = 333mW Ci = 0µF Li = 0mH

8. Wiring from each channel to each field device may be achieved using separate cables or by means of separate circuits within Type A or Type B multicore cables (as defined in Clause 5.3 of EN50039) subject to the following:-

a) each circuit within a Type A multicore cable is to be individually screened;

b) the peak voltage of any circuit within a type B multicore cable must not exceed 60V.

Ex 98E2203/9
Baseefa Certification Schedule Drawing

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Iss	Date	Drn	Modification
1	11.00	ACW	First GE Fanuc issue.
2	7.08	CMB	
3	2.10	JES	First GE Intelligent Platforms issue.

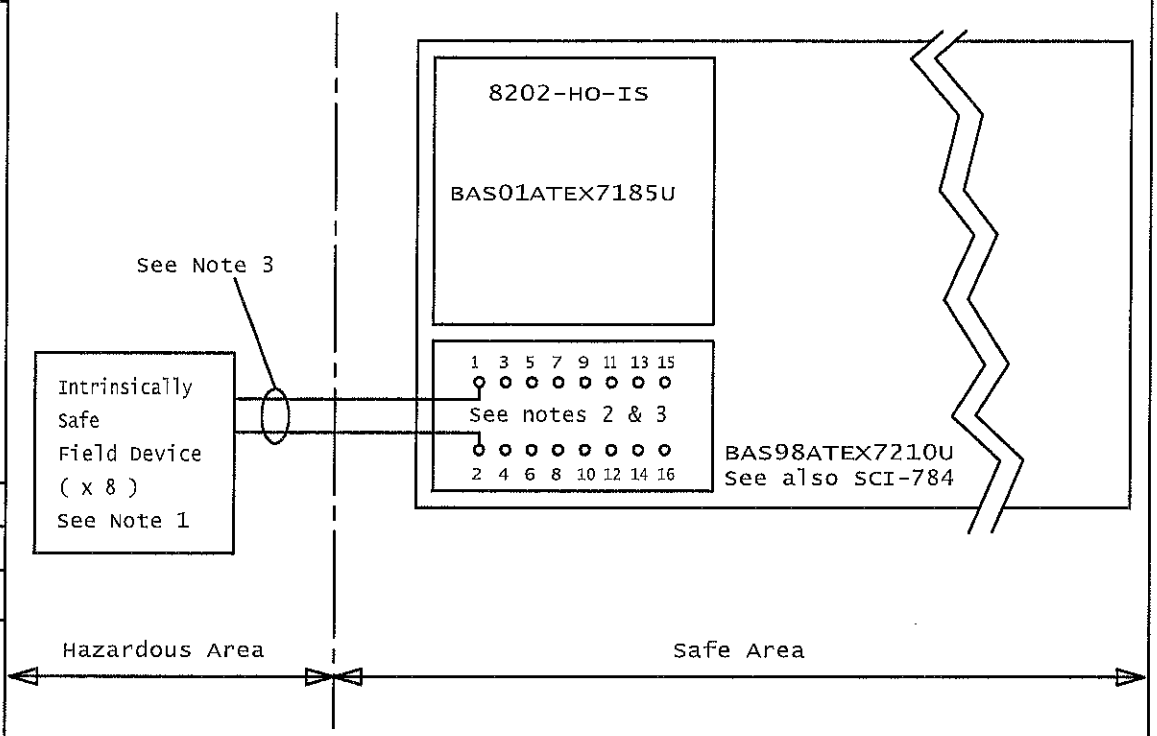
Certifying Authority: BASEEFA Scale N/A

Tolerance unless otherwise stated ± N/A Sheet 5 of 5

Title Installation Drawing for the 8223-PI-IS 2-Channel Pulse/Frequency Input Module Drg. No. SCI-929

A4

Dimensions in mm | Do Not Scale | Third Angle Projection



Notes

1. Devices i.e. switches, thermocouples, PRTs or resistors meeting the requirements of clause 1.3 of EN50014:1977 or Clause 5.4 of EN50020:1994. The PRTs and resistors must have a surface area of between 20mm² and 10cm². They must be provided with a degree of protection of at least IP20, to be installed in accordance with the requirements of clause 5 of EN50 020: 1977 or clause 6 of EN50 020: 1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth, or to the frame of the equipment, without breakdown. Such devices do not require to be certified or marked.
2. The pair of terminals on the Field Terminal Assembly used by each channel is defined on SCI-784. Each pair of terminals has the following safety description.

Uo ≤ 24.6Vdc Io ≤ 93mA Po ≤ 0.57W

Ex 98E2203/9
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Certification
Schedule
Drawing

M. Munro

M. Munro

Iss	Date	Drn	Modification	Ckd
1	5.01	ACW	First GE Fanuc issue.	
2	7.08	CMB	First GE Intelligent Platforms issue.	
3	2.10	JES		

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 2
Title Installation Drawing for the 8202-HO-IS 8-Channel Analogue Output Module, 4-20mA with HART	Drg. No. SCI-940

A4

Dimensions in mm | Do Not Scale | Third Angle Projection

3. The parameters of loads/cables which may be connected to each pair of terminals are given in the table below.

Group	Capacitance (µF)	Inductance (mH) or L/R Ratio (µH/Ω)	
IIA	3.12	36.02	505
IIB	0.87	17.72	239
IIC	0.116	4.30	64

4. Wiring to each pair of terminals may be achieved using separate cables or means of separate circuits within Type A or Type B multicore cables (as defined in clause 5.3 of EN50039) subject to the following:-
   a) Each circuit within a Type A multicore cable is to be individually screened;
   b) The peak voltage of any circuit within a Type B multicore cable must not exceed 60V.

Ex 98E2203/9
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M. Munro

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Iss	Date	Drn	Modification
1	5.01	ACW	First GE Fanuc issue.
2	7.08	CMB	First GE Intelligent Platforms issue.
3	2.10	DES	

Certifying Authority: BASEEFA | Scale N/A

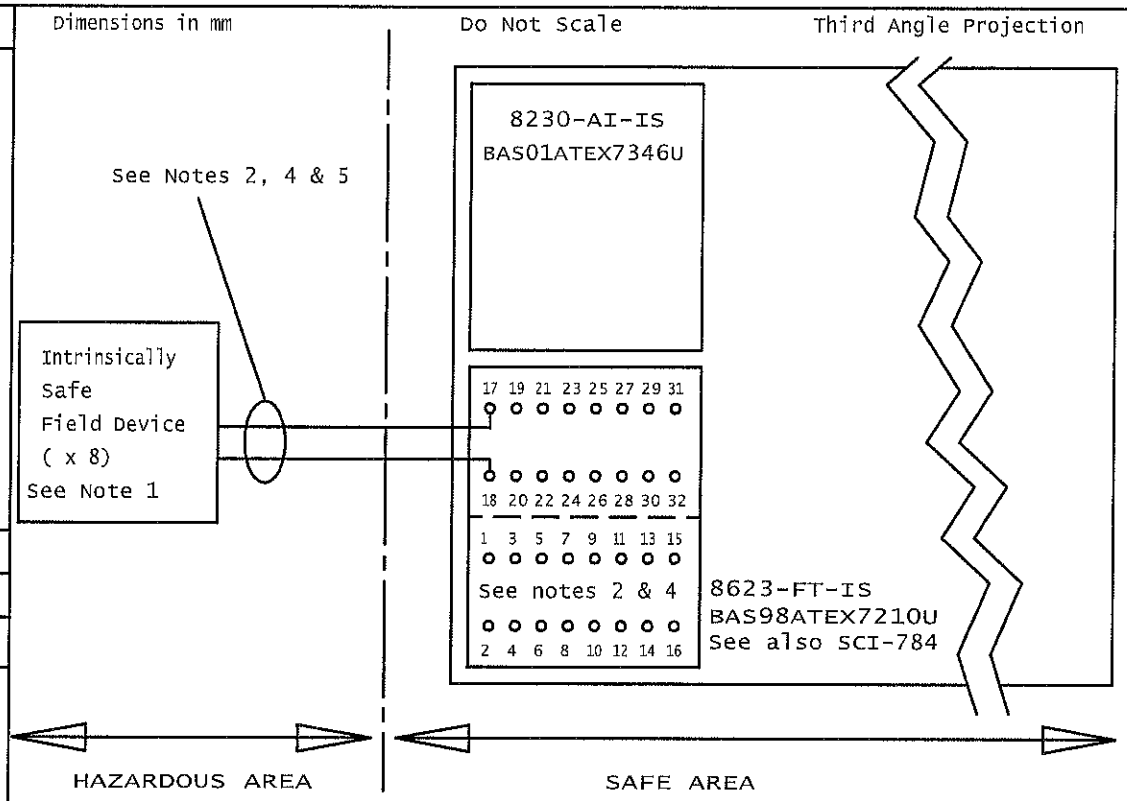
Tolerance unless otherwise stated ± N/A | Sheet 2 of 2

Title: Installation Drawing for the 8202-HO-IS 8-Channel Analogue Output Module, 4-20mA with HART | Drg. No. SCI-940

A4

Iss	Date	Drn	Modification
1	9.01	ACW	First GE Fanuc issue.
2	7.08	CMB	First GE Intelligent Platforms issue.
3	2.10	JES	

Dimensions in mm Do Not Scale Third Angle Projection



Notes

1. Devices, e.g. switches, thermocouples, PRTs or resistors meeting the requirements of Clause 1.3 of EN50014:1997, or Clause 5.4 of EN50 020:1977. The PRTs must have a surface area of between 20mm² and 10cm². They must be provided with a degree of protection of at least IP20, must be installed in accordance with the requirements of Clause 5 of EN50 020:1977 or Clause 6 of EN50020:1994 and must be capable of withstanding an a.c. test voltage of 500V r.m.s. to earth or the frame of the equipment, without breakdown.. Such devices do not require to be certified or marked.

2. For installations with a voltage input the pair of terminals for each channel as shown in the table below has the following safety description.

$U_o \leq 15.75V$ $I_o \leq 20mA$ $P_o \leq 0.315W$

Channel	Terminals
1	17,18
2	19,20
3	21,22
4	23,24
5	25,26
6	27,28
7	29,30
8	31,32

Ex 98E2203/9
Baseefa Certification Schedule Drawing

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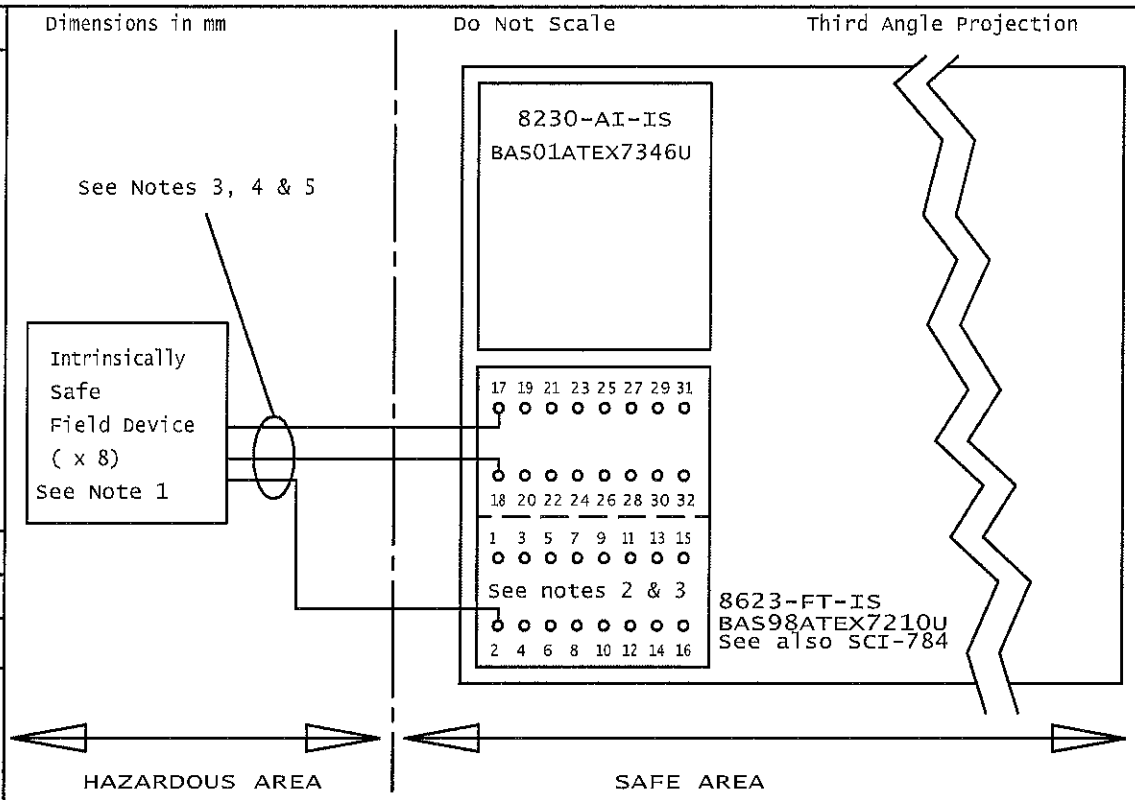
For details of load/cable parameters see Note 4.

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 1 of 3
Title: Installation Drawing for the 8230-AI-IS	Drg. No. SCI-941

A4



3. For installations with connection to a field mounted potentiometer the terminals used are shown in the table below. Each set of terminals used has the safety description shown.

Uo ≤ 15.75V Io ≤ 20mA Po ≤ 0.315W

Channel	Terminals
1	2,17,18
2	4,19,20
3	6,21,22
4	8,23,24
5	10,25,26
6	12,27,28
7	14,29,30
8	16,31,32

For details of load/cable parameters see Note 4.

Ex 98E2203/9
Baseefa Certification Schedule Drawing

M. Munro

Iss	Date	Drn	Modification
1	9.01	ACW	First GE Fanuc issue.
2	7.08	CMB	
3	2.10	JES	First GE Intelligent Platforms issue.

Certifying Authority: BASEEFA	Scale N/A
Tolerance unless otherwise stated ± N/A	Sheet 2 of 3
Title: Installation Drawing for the 8230-AI-IS	Drg. No. SCI-941

A4

4. The parameters of loads/cables which may connected to the terminals of each channel in either the voltage input or potentiometer input configuration are shown in the table below.

Group	Capacitance (µF)	Inductance (mH) or L/R Ratio (µH/Ω)	
IIC	0.47	87.5	334
IIB	2.88	328	952
IIA	11.6	633	952

5. Wiring to the terminals of each channel may be achieved using separate cables or by means of separate circuits within Type A or Type B multicore cables (as defined in Clause of EN50039) subject to the following :-

   a) Each circuit within a Type A multicore cable is to be individually screened;

   b) The peak voltage of any circuit within a Type B multicore cable must not exceed 60V.

Ex 98E2203/9
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Drawing

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Iss	Date	Drn	Modification
1	9.01	ACW	First GE Fanuc issue.
2	7.08	CMB	First GE Intelligent Platforms issue.
3	2.10	JES	

Certifying Authority: BASEEFA

Tolerance unless otherwise stated ± N/A

Scale N/A

Sheet 3 of 3

Title: Installation Drawing for the 8230-AI-IS

Drg. No. SCI-941

A4