IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx BAS 11.0098X issue No.:3

Status: **Current**

Date of Issue: **2016-02-01** Page 1 of 4

Certificate history:
Issue No. 3 (2016-2-1)
Issue No. 2 (2012-12-10)
Issue No. 1 (2012-6-1)
Issue No. 0 (2011-11-4)

Applicant:
Rosemount Analytical
2400 Barranca Parkway
Irvine
California 92606
United States of America

Electrical Apparatus: **Model 1066**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIC T4 Ga**
-20°C ≤ Ta ≤ +65°C

Approved for issue on behalf of the IECEx Certification Body: R. S. Sinclair

Position: Technical Manager

Signature:
(for printed version)

Date: 2 FEBRUARY 2016

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2016-02-01** Issue No.: **3**

Manufacturer: **Rosemount Analytical**
2400 Barranca Parkway
Irvine
California 92606
United States of America

Additional Manufacturing location (s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
GB/BAS/ExTR11.0258/00 GB/BAS/ExTR12.0110/00 GB/BAS/ExTR12.0325/00
GB/BAS/ExTR15.0367/00

Quality Assessment Report:

GB/BAS/QAR10.0024/03

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2016-02-01** Issue No.: **3**

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The Model 1066 is designed to convert an electrical signal from a remote sensor into a 4-20mA, HART or Fieldbus compatible signal. The apparatus consists of a printed circuit board, terminal facilities and a liquid crystal display and keypad, all housed in a plastic enclosure.

The apparatus may be designated as follows:

1066-AA-BB-73 where:

AA = AN (Analog Output only)
HT (HART/Analog Output)
FF (Fieldbus)
FI (FISCO)

BB = P (pH/ORP)
CL (Chlorine)
DO (Dissolved Oxygen)
OZ (Ozone)
T (Toroidal Conductivity)
C (Contacting Conductivity)

See Annex for electrical data.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with a damp cloth.

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2016-02-01** Issue No.: **3**

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 3.1

To permit minor drawing changes that do not affect the original assessment.
The equipment description is corrected to include references to the T & C models.

ExTR: **GB/BAS/ExTR15.0367/00** File Reference: **15/0686**

Annex: IECEx BAS 11.0098X Annex 2.pdf

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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Certificate No.:	IECEx BAS 11.0098X issue No.:2	Certificate history: Issue No. 2 (2012-12-10) Issue No. 1 (2012-6-1) Issue No. 0 (2011-11-4)
Status:	**Current**	
Date of Issue:	**2012-12-10**	Page 1 of 4

Applicant: **Rosemount Analytical**
2400 Barranca Parkway
Irvine
California 92606
United States of America

Electrical Apparatus: **Model 1066**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIC T4 Ga**
-20°C ≤Ta ≤+65°C

Approved for issue on behalf of the IECEx Certification Body: R. S. Sinclair

Position: General Manager

Signature:
(for printed version)

Date: 11-12-12

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Derbyshire
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United Kingdom

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2012-12-10** Issue No.: **2**

Manufacturer: **Rosemount Analytical**
2400 Barranca Parkway
Irvine
California 92606
United States of America

Additional Manufacturing location (s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011-06 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
GB/BAS/ExTR11.0258/00 GB/BAS/ExTR12.0110/00 GB/BAS/ExTR12.0325/00

Quality Assessment Report:

GB/BAS/QAR10.0024/01

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2012-12-10** Issue No.: **2**

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The Model 1066 is designed to convert an electrical signal from a remote sensor into a 4-20mA, HART or Fieldbus compatible signal. The apparatus consists of a printed circuit board, terminal facilities and a liquid crystal display and keypad, all housed in a plastic enclosure.

The apparatus may be designated as follows:

1066-AA-BB-73 where:

AA = AN (Analog Output only)
HT (HART/Analog Output)
FF (Fieldbus)
FI (FISCO)

BB = P (pH/ORP)
CL (Chlorine)
DO (Dissolved Oxygen)
OZ (Ozone)

See Annex for electrical data.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with a damp cloth.

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2012-12-10** Issue No.: **2**

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 2.1

To permit minor drawing changes that do not affect the original assessment.
To correct the input parameters for Analog Out. See Annex.

ExTR: **GB/BAS/ExTR12.0325/00** File Reference: **12/1028**

Annexe: IECEx BAS 11.0098X Annex 2.pdf

SGS Baseefa limited
Rockhead Business Park
Staden lane, Buxton, Derbyshire
SK17 9RZ
United Kingdom

ANNEX to IECEx BAS 11.0098X Issue No. 2 Date: 2011/12/10

INPUT/OUTPUT PARAMETERS:

1066-AA-AN/HT

Loop Power

TB6, terminals 1 - 3

U_i = 30V C_i = 0
I_i = 200mA L_i = 0
P_i = 0.9W

Sensor terminals

TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o = 12.18V C_i = 0
I_o = 353mA L_i = 0
P_o = 420mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	1.32	0.25		88
IIB	8.4	0.75		355
IIA	33	2.10		711

Note: The above load parameters apply where:

1. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

Analog Out 2

TB7, terminals 1 & 2

U_i = 30V C_i = 0
I_i = 200mA L_i = 0
P_i = 0.9W

1066-AA-FF/FI

Loop Power (Fieldbus, 1066-AA-FF)
TB6, terminals 1 & 2

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

Loop Power (FISCO, 1066-AA-FI)
TB6, terminals 1 & 2

U_i	=	17.5V	C_i	=	0
I_i	=	380mA	L_i	=	0
P_i	=	5.32W			

Sensor terminals (Fieldbus and FISCO, 1066-AA-FF/FI)
TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o	=	12.18V	C_i	=	0
I_o	=	353mA	L_i	=	0
P_o	=	420mW			

Load parameters
The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	1.32	0.25		88
IIB	8.4	0.75		355
IIA	33	2.10		711

Note: The above load parameters apply where:

2. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.
or 2. The inductance and capacitance are distributed as in a cable.
or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

1066-C/T-HT

Loop Power
TB6, terminals 1 & 2

U_i	=	30V	C_i	=	0
I_i	=	200mA	L_i	=	0
P_i	=	0.9W			

Analog Out 2
TB7, terminals 1 & 2

U_i	=	30V	C_i	=	0
I_i	=	200mA	L_i	=	0
P_i	=	0.9W			

1066-C/T-FF

Loop Power (Fieldbus)
TB6, terminals 1 & 2

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

1066-C/T-FI

Loop Power (FISCO)
TB6, terminals 1 & 2

U_i	=	17.5V	C_i	=	0
I_i	=	380mA	L_i	=	0
P_i	=	5.32W			

The Model 1066T does not have any sensor terminal parameters as the toroids (Model 222, 225, 226 or 228) are directly connected to the PCB. The Model 1066C output parameters are as follows:

1066-C-HT
Sensor terminals
TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o	=	5.88V	C_i	=	3.66nF
I_o	=	71mA	L_i	=	6.11mH
P_o	=	104.4mW			

Load parameters
The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	42.9	1.23		340
IIB	1000	22.99		1360
IIA	1000	54.29		2720

Note: The above load parameters apply where:

1. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.
or 2. The inductance and capacitance are distributed as in a cable.
or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

1066-C-FF/FI
Sensor terminals
TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o	=	5.88V	C_i	=	3.66nF
I_o	=	65.5mA	L_i	=	6.11mH
P_o	=	96.2mW			

Load parameters
The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	42.9	2.38		250
IIB	1000	27.19		1000
IIA	1000	63.36		1000

Note: The above load parameters apply where:

1. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.
or 2. The inductance and capacitance are distributed as in a cable.
or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

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IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx BAS 11.0098X issue No.:1	Certificate history: Issue No. 1 (2012-6-1) Issue No. 0 (2011-11-4)
Status:	**Current**	
Date of Issue:	**2012-06-01**	Page 1 of 4

Applicant:
Rosemount Analytical
2400 Barranca Parkway
Irvine
California 92606
United States of America

Electrical Apparatus: **Model 1066**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIC T4 Ga**
-20°C ≤ Ta ≤ +65°C

Approved for issue on behalf of the IECEx Certification Body: R. S. Sinclair

Position: General Manager

Signature:
(for printed version)

Date: 1/6/12

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Certificate issued by:

Baseefa
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom

Baseefa

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2012-06-01** Issue No.: **1**

Manufacturer: **Rosemount Analytical**
2400 Barranca Parkway
Irvine
California 92606
United States of America

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011-06 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
GB/BAS/ExTR11.0258/00 GB/BAS/ExTR12.0110/00

Quality Assessment Report:

GB/BAS/QAR10.0024/01

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2012-06-01** Issue No.: **1**

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The Model 1066 is designed to convert an electrical signal from a remote sensor into a 4-20mA, HART or Fieldbus compatible signal. The apparatus consists of a printed circuit board, terminal facilities and a liquid crystal display and keypad, all housed in a plastic enclosure.

The apparatus may be designated as follows:

1066-AA-BB-73 where:

AA = AN (Analog Output only)
HT (HART/Analog Output)
FF (Fieldbus)
FI (FISCO)

BB = P (pH/ORP)
CL (Chlorine)
DO (Dissolved Oxygen)
OZ (Ozone)

See Annex for electrical data.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with a damp cloth.

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2012-06-01** Issue No.: **1**

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1

To permit minor electrical changes that do not affect the original assessment.

Variation 1.2

To permit the introduction of alternative circuit designs and printed circuit boards forming the Model 1066C and Model 1066T.
For parameters see Annex.

ExTR: **GB/BAS/ExTR12.0110/00** File Reference: **11/0983**

Annexe: IECEx BAS 11.0098X Iss 1 Annex.pdf

Input/output parameters

1066-AA-AN/HT

Loop Power

TB6, terminals 1 - 3

U_i = 30V C_i = 0
I_i = 200mA L_i = 0
P_i = 0.9W

Sensor terminals

TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o = 12.18V C_i = 0
I_o = 353mA L_i = 0
P_o = 420mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	1.32	0.25		88
IIB	8.4	0.75		355
IIA	33	2.10		711

Note: The above load parameters apply where:

1. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.
or 2. The inductance and capacitance are distributed as in a cable.
or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

Analog Out

TB7, terminals 1 & 2

U_o = 5.36V C_i = 0
I_o = 113.15mA L_i = 0
P_o = 151.6mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Block 7, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	65	3.2		234
IIB	1000	12		938
IIA	1000	30		1875

Note: The above load parameters apply where:

2. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

1066-AA-FF/FI
Loop Power (Fieldbus, 1066-AA-FF)
TB6, terminals 1 & 2

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

Loop Power (FISCO, 1066-AA-FI)
TB6, terminals 1 & 2

U_i = 17.5V C_i = 0
I_i = 380mA L_i = 0
P_i = 5.32W

Sensor terminals (Fieldbus and FISCO, 1066-AA-FF/FI)
TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o = 12.18V C_i = 0
I_o = 353mA L_i = 0
P_o = 420mW

Load parameters
The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	1.32	0.25		88
IIB	8.4	0.75		355
IIA	33	2.10		711

Note: The above load parameters apply where:

3. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

1066-C/T-HT
Loop Power
TB6, terminals 1 - 3

U_i	=	30V	C_i	=	0
I_i	=	200mA	L_i	=	0
P_i	=	0.9W			

1066-C/T-FF
Loop Power (Fieldbus)
TB6, terminals 1 & 2

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

1066-C/T- FI
Loop Power (FISCO)
TB6, terminals 1 & 2

U_i	=	17.5V	C_i	=	0
I_i	=	380mA	L_i	=	0
P_i	=	5.32W			

The Model 1066T does not have any sensor terminal parameters as the toroids are directly connected to the PCB. The Model 1066C output parameters are as follows:

1066-C-HT (HART)
Sensor terminals
TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o	=	5.88V	C_i	=	3.66nF
I_o	=	71mA	L_i	=	6.11mH
P_o	=	104.4mW			

Load Parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	42.9	1.23		340
IIB	1000	22.99		1360
IIA	1000	54.29		2720

Note: The above load parameters apply where:

1 The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.
or 2. The inductance and capacitance are distributed as in a cable.
or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

1066-C-FF/FI (Fieldbus / FISCO)

Sensor terminals

TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o = 5.88V C_i = 3.66nF

I_o = 65.5mA L_i = 6.11mH

P_o = 96.2mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	42.9	2.38		250
IIB	1000	27.19		1000
IIA	1000	63.36		2000

Note: The above load parameters apply where:

1 The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

1066-C-HT/FF/FI (all variants)

Analog Out

TB7, terminals 1 & 2

U_o = 5.36V C_i = 0

I_o = 113.15mA L_i = 0

P_o = 151.6mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Block 7, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	65	3.2		234
IIB	1000	12		938
IIA	1000	30		1875

Note: The above load parameters apply where:

1 The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1μF for Group IIB and 600nF for Group IIC.

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx BAS 11.0098X issue No.:0	Certificate history:
Status:	**Current**	
Date of Issue:	**2011-11-04**	Page 1 of 3

Applicant: **Rosemount Analytical**
2400 Barranca Parkway
Irvine
California 92606
United States of America

Electrical Apparatus: **Model 1066**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIC T4 Ga**
-20°C ≤ Ta ≤ +65°C

Approved for issue on behalf of the IECEx Certification Body: R. S. Sinclair

Position: Managing Director

Signature:
(for printed version)

Date: 4/11/11

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Baseefa
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom

Baseefa

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2011-11-04** Issue No.: **0**

Manufacturer: **Rosemount Analytical**
2400 Barranca Parkway
Irvine
California 92606
United States of America

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011-06 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
GB/BAS/ExTR11.0258/00

Quality Assessment Report:

GB/BAS/QAR10.0024/00

IECEx Certificate of Conformity

Certificate No.: IECEx BAS 11.0098X

Date of Issue: **2011-11-04** Issue No.: **0**

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The Model 1066 is designed to convert an electrical signal from a remote sensor into a 4-20mA, HART or Fieldbus compatible signal. The apparatus consists of a printed circuit board, terminal facilities and a liquid crystal display and keypad, all housed in a plastic enclosure.

The apparatus may be designated as follows:

1066-AA-BB-73 where:

AA = AN (Analog Output only)
HT (HART/Analog Output)
FF (Fieldbus)
FI (FISCO)

BB = P (pH/ORP)
CL (Chlorine)
DO (Dissolved Oxygen)
OZ (Ozone)

See Annex for electrical data.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with a damp cloth.

Annexe: IECEx BAS 11.0098X Annex.pdf

Input/output parameters

1066-AA-AN/HT

Loop Power

TB6, terminals 1 - 3

U_i = 30V C_i = 0

I_i = 200mA L_i = 0

P_i = 0.9W

Sensor terminals

TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o = 12.18V C_i = 0

I_o = 353mA L_i = 0

P_o = 420mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	1.32	0.25		88
IIB	8.4	0.75		355
IIA	33	2.10		711

Note: The above load parameters apply where:

1. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

Analog Out

TB7, terminals 1 & 2

U_o = 5.36V C_i = 0

I_o = 113.15mA L_i = 0

P_o = 151.6mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Block 7, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	65	3.2		234
IIB	1000	12		938
IIA	1000	30		1875

Note: The above load parameters apply where:

2. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.

1066-AA-FF/FI

Loop Power (Fieldbus, 1066-AA-FF)

TB6, terminals 1 & 2

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

Loop Power (FISCO, 1066-AA-FI)

TB6, terminals 1 & 2

U_i = 17.5V C_i = 0
I_i = 380mA L_i = 0
P_i = 5.32W

Sensor terminals (Fieldbus and FISCO, 1066-AA-FF/FI)

TB1, terminals 1 & 2; TB2, terminals 1 – 3; TB3, terminals 1 – 3; TB4, terminals 1 & 2; TB5, terminals 1 & 2

U_o = 12.18V C_i = 0
I_o = 353mA L_i = 0
P_o = 420mW

Load parameters

The capacitance and either the inductance or the inductance to resistance (L/R) ratio of the load connected to Terminal Blocks 1, 2, 3, 4 & 5, must not exceed the following:

Group	Capacitance µF	Inductance mH	OR	L/R Ratio µH/Ω
IIC	1.32	0.25		88
IIB	8.4	0.75		355
IIA	33	2.10		711

Note: The above load parameters apply where:

3. The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values.

or 2. The inductance and capacitance are distributed as in a cable.

or 3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit contains combined lumped inductance and capacitance, up to 50% of each of the L and C values is allowed. But the maximum capacitance allowed must not be more than 1µF for Group IIB and 600nF for Group IIC.