SIEMENS

Kurzmitteilung/Fax

Herr Giese

Bosch Telekom GmbH

Per Fax: 02161-477 6091

7 Seiten

Fire & Security Products
Siemens Gebäudesicherheit GmbH & Co. oHG

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Unser Zeichen	
Datum	06. Juni 2002

Sehr geehrter Herr Giese,

als Anlage erhalten Sie Konformitätserklärung BAS No. Ex 98E2304
der British Approvals Service for Electrical Equipment in Flammable Areas
(vergleichbar mit der PTB in Deutschland)
Dort wurde das DS11-Melder System von Cerberus geprüft, das Zertifikat schließt auch den Handfeuermelder DM1103B ein siehe S.2,Abschnitt 2.1.
Die Anforderungen der EN50020 Abschnitt 5.4 einfache elektrische Betriebsmittel werden erfüllt, was auf der letzten Seite im Auszug aus dem Report No:96 (C) 1004 bestätigt wird.

Wir hoffe diese Dokumente helfen Ihnen weiter,
für weitere Rückfragen stehen wir Ihnen gerne zur Verfügung

Mit freundlichen Grüßen

Uwe Krohmann

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Certificate of Conformity

1

2 **BAS No. Ex 98E2304**

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

THE DS-11 Ex DETECTOR LOOP SYSTEM

4 Submitted for certification by:

SIEMENS BUILDING TECHNOLOGIES AG, CERBERUS DIVISION of Alte Landstrasse 411, CH-8708, Männedorf, Switzerland

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:

96(C)1004 dated 28 January 1999

7 The system is coded:

EEx ib IIC

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 0205/02/005

Sheet 1 of 4

ELECTRICAL EQUIPMENT EECS CERTIFICATION SERVICE

I M CLEARE
DIRECTOR

12 February 1999

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

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 98E2304

SYSTEM DESCRIPTION

A DS-11 Ex Detector Loop System comprising of:-

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

   1.1 Any one of the following shunt zener diode safety barriers

   a. A Type Stahl 9001/00-280-100-10 (28Vneg, 100mA) to PTB Certificate No. Ex-91.C.2046X

   b. A Type MTL 728 (28Vneg, 93mA) to BASEEFA Certificate No. Ex 832452

   c. A Type STL E85 (28Vneg, 93mA) to BASEEFA Certificate No. Ex 832072

   d. A Type Stahl 9001/01-280-100-10 (28Vpos, 100mA) to PTB Certificate No. Ex-91.C.2046X

   e. A Type MTL 728 (28Vpos, 93mA) to BASEEFA Certificate No. Ex 832452

   f. A Type STL E85 (28Vpos, 93mA) to BASEEFA Certificate No. Ex 832072

   g. A Type Stahl 9002/13-280-093-00 (28Vpos, 93mA: 28Vpos, diode return) to PTB Certificate No. Ex-91.C.2045X

   An optional evaluation shunt zener diode safety barrier (Only to be used with a, b or c above)

   h. A Type Stahl 9001/04-086-000-10 (8.6Vneg, diode return) to PTB Certificate No. Ex-91.C.2045

   1.3 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 Any number of Manual Call Point Types DM1101, DM1103 and DM1104 as detailed in BASEEFA Report No. 96(C)1004.

   2.2 Up to 15 Smoke Detectors Type DO1101A-Ex to PTB Certificate No. Ex-96.C.2060. Each smoke detector is to be used with a Detector Base Type DB1101A (and with any of following accessories:- DBZ1190, DBZ1190-AA, DBZ1191, DBZ1191A-AA, DBZ1192 and DBZ1194).

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Certificate of Conformity BAS No. Ex 98E2304

The Smoke Detectors Type DO1101A-Ex may be used as part of the Air Sampling Smoke Detector Unit Type DBZ1197A (this being a mechanical arrangement which does not affect intrinsic safety)

2.3 Up to 25 Heat Detectors Type DT1101A-Ex or Type DT1102A-Ex to PTB Certificate No. Ex-95.C.2148. Each heat detector is to be used with a Detector Base Type DB1101A (and with any of following accessories:- DBZ1190, DBZ1190-AA, DBZ1191, DBZ1191A-AA, DBZ1192 and DBZ1194)

2.4 The Manual Call Point Types DM1101, DM1103 and DM1104 , Smoke Detectors Type DO1101A-Ex, Heat Detectors Type DT1101A-Ex or Type DT1102A-Ex may be fitted with an End-of-line Device which may consist of one of the following:

(i) A resistor (4320Ω ±5%, 1W) or an alternative value of resistor in accordance with drawing e4-5740-1.

(ii) An EOL22 (Ex) as detailed in BASEEFA Report No. 96(C)1004.

All of which must be installed such that the electrical circuit is provided with a degree of protection of at least IP20.

2.5 A Remote Indicator (LED) Type AJUT24 as detailed in BASEEFA Certificate Ex 862097 or Type DJ1191Ex or Type1192Ex as detailed in BASEEFA Certificate Ex 862097/6.

3. Permissible Interconnecting Cables.

3.1 The capacitance and either the inductance OR the inductance to resistance ratio (L/R) of the cable connected to the output terminals must not exceed the following values:

GROUP	CAPACITANCE (μF)	INDUCTANCE (mH)	L/R RATIO (μH/ohm)
All barriers except Stahl 9002/13-280-093-00			
IIC	0.045	3.0	55
IIB	0.315	11.6	165
IIA	0.535	32.6	440
Stahl 9002/13-280-093-00			
IIC	0.032	3.0	55
IIB	0.315	11.6	165
IIA	0.535	32.6	440

British Approvals Service for Electrical Equipment in Flammable Atmospheres

BASEEFA

Schedule

Certificate of Conformity BAS No. Ex 98E2304

The system does not consider the inclusion of the interconnecting wiring in a multi-core cable.

DRAWINGS

Number	Sheet	Issue	Date	Description
3-6827	-	*3	26.10.98	DS11-Ex Detector Loop System
4-521738-1	-	*2	26.10.98	System Label
@D4-457763	1	c	29.04.97	DM1101 Manual Call Point
@D4-457763	2	c	29.04.97	DM1101 Manual Call Point
@S4-485133	-	D1	06.10.95	DMA1103/DMA1104 Call Point
@M4-485272	-	A	01.07.96	DMA1103/DMA1104 Parts List
@X4-485272	-	B	03.07.95	Printed Circuit Board assembly
@X4-6873	-	*2	26.10.98	End of Line Device EOL22 (Ex)
@S4-516222	-	Orig.	08.10.96	End of Line Device EOL22 (Ex)
@M4-516222	-	Orig.	07.10.96	Parts List
@M4-516387	-	Orig.	07.10.96	Parts List
e4-5740-1	-	*1	05.05.97	End of line resistor
#R3.1678	-	-	17.11.78	AJUT 24 Ex LED Indicator
X2-6534	-	A	12.10.95	DB1101/DBZ1191\DBZ1192 base
X1367	-	-	09.95	DBZ1197 Air sampling detector unit
##X3-478344	-	-	21.02.94	Remote Indicator Type DJ1191Ex
##M4-478344 IND	-	-	02.10.95	Type DJ1191 Ex Parts List
##X3-478357	-	-	21.02.94	Remote Indicator Type DJ1192Ex
##M4-478357 IND	-	-	02.10.95	Type DJ1192 Ex Parts List
##S4-478373	-	-	21.03.94	Type DJ1191Ex and DJ1192 Ex Circuit

Drawing marked # are held on BASEEFA Certificate Ex 862097
Drawings marked ## are held on BASEEFA Certificate Ex 862097/6
Drawing marked @ are associated with BASEEFA Certificate Ex 862097/7

BASEEFA List Keywords

2ALARM

TABLE 1 LIST OF COMPONENTS

item	Component Type	Max. No.	Apparatus marking code	Tamb °C	Certificate No.
	SAFETY BARRIER (ONE OFF) Either				
A 1	Stahl 9001/00-280-100-10 (SB3) MTL 728 Negative STL695 Negative or	1	[EEx ia] IIC [EEx ia] IIC [EEx ia] IIC	≤ 40 ≤ 60 ≤ 45	PTB Ex-91.C.2046X BAS Ex 832 452 BAS Ex 832 072
A 2	Stahl 9001/01-280-100-10 MTL 728 Positive STL695 Positive or		[EEx ia] IIC [EEx ia] IIC [EEx ia] IIC	≤ 40 ≤ 60 ≤ 45	PTB Ex-91.C.2046X BAS Ex 832 452 BAS Ex 832 072
A3	Stahl 9002/13-280-093-00 (SB2)		[EEx ia] IIC	≤ 40	PTB Ex-91.C.2045X
B	EVALUATION BARRIER ⊛ Stahl 9001/04-086-000-10	1 per LED	[EEx ia] IIC	≤ 40	PTB Ex-91.C.2046X
F	END-OF-LINE DEVICE Connected inside Ⓗ or Ⓚ or together with Ⓗ or Ⓙ Either RESISTOR 4320 Ohm/1W ± 5% 3) or EOL22 (Ex)	1	EEx ib IIC {T6 T5 EEx ia IIC T4	≤ 55 ≤ 70 ≤ 70	BAS Test Report 86/0100 2) BAS Report No 96C31004 2)
G	REMOTE INDICATOR (LED) ⊛ Connected to Ⓚ together with Ⓗ or Ⓙ AJUT24Ex DJ1191Ex, DJ1192Ex	1 per det.	EEx ib IIC T6 EEx ib IIC T4	≤ 55 ≤ 80	BAS Test Report BAS Ex 862097/6 2)
H	SMOKE DETECTOR DO1101A-Ex with detector base Ⓚ	25 1)	EEx ib IIC T4	≤ 60	PTB Ex-94.D.2060
J	HEAT DETECTOR DT1101A-Ex, DT1102A-Ex with detector base Ⓚ	25 1)	EEx ia IIC T4	≤ 70	PTB Ex-95.D.2148
K	DETECTOR BASE DB1101A with accessories: DBZ1190, DBZ1191, DBZ1191A-AA DBZ1192, DBZ1194, DBZ1190-AA DBZ1190-AB must be fitted with DO1101A-Ex, DT1101A-Ex, DT1102A-Ex detector	1 per H and J	BAS Report No 96C31004		2)
L	AIR SAMPLING SMOKE DETECTOR UNIT DBZ1197A for use with DB1101A base and DO1101A-Ex detector	1 per H	BAS Report No 96C31004		2)
M	MANUAL CALL POINT DM1101 DM1103 DM1104	not limited	EEx ia IIC T4	≤ 70	BAS Report No 96C31004 2)

1) Total number of H and J in any combination must not exceed 25 units.

2) Simple apparatus according to EN50014 clauses 1.3 and 4.2

3) Special end-of-line resistor values: see dwg. e4-5740-1

BASEEFA CERTIFIED DRAWING Ex 98 E 2304 CERT No EX

EECS ELECTRICAL EQUIPMENT CERTIFICATION SERVICE

HEALTH & SAFETY EXECUTIVE

NON HAZARDOUS AREA

Unspecified except that it must not be supplied from nor contain under normal or abnormal conditions a source of potential in respect to earth in excess of 250 V RMS

HAZARDOUS AREA

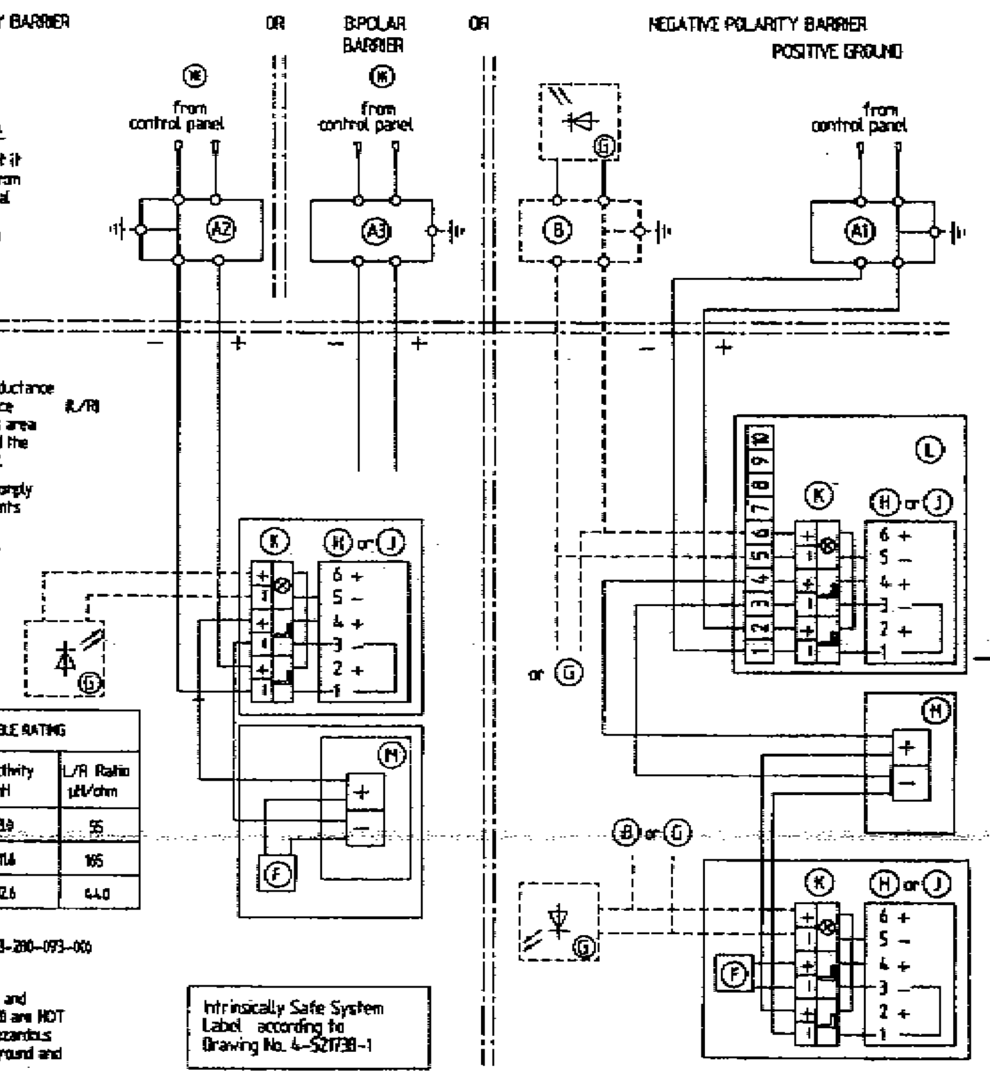
The Capacitance and Inductance or Inductance/Resistance (L/R) Ratio of the hazardous area cables must not exceed the values shown in table 2.

The installation must comply with national requirements (e.g. in the U.K.: BS5345 ; Part 4 : 1977).

TABLE 2	MAXIMUM CABLE RATING		
Group	Capacity µF	Inductivity mH	L/R Ratio µH/ohm
IIC	0.045 **	3.9	55
IIB	0.315	11.6	165
IIA	0.535	32.6	440

** for A3 (Stahl 9002/13-280-093-00) 0.032 µF only.

⊛ Remote indicators (G) and evaluation barriers (B) are NOT to be used in NON-hazardous areas of NEGATIVE ground and bipolar systems.



Toleranzen	Oberfläche	Masstab Material

	Datum	Name
Gez.	05.08.96	POA
Gepr.	19.1.99	
Ges.	19.1.99	

Zust	Änderung	Datum	Name
*3	-	26.10.98	KOA
*2	23.09.97	26.10.98	KOA
*1	30.04.97	26.10.98	Stv

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SCHEMATIC PRINCIPLE DIAGRAM

Intrinsically Safe DS11-Ex Detector Loop System

3-6827 *3

Blatt 1 1 Bl.

Ers. f. Ers. d.

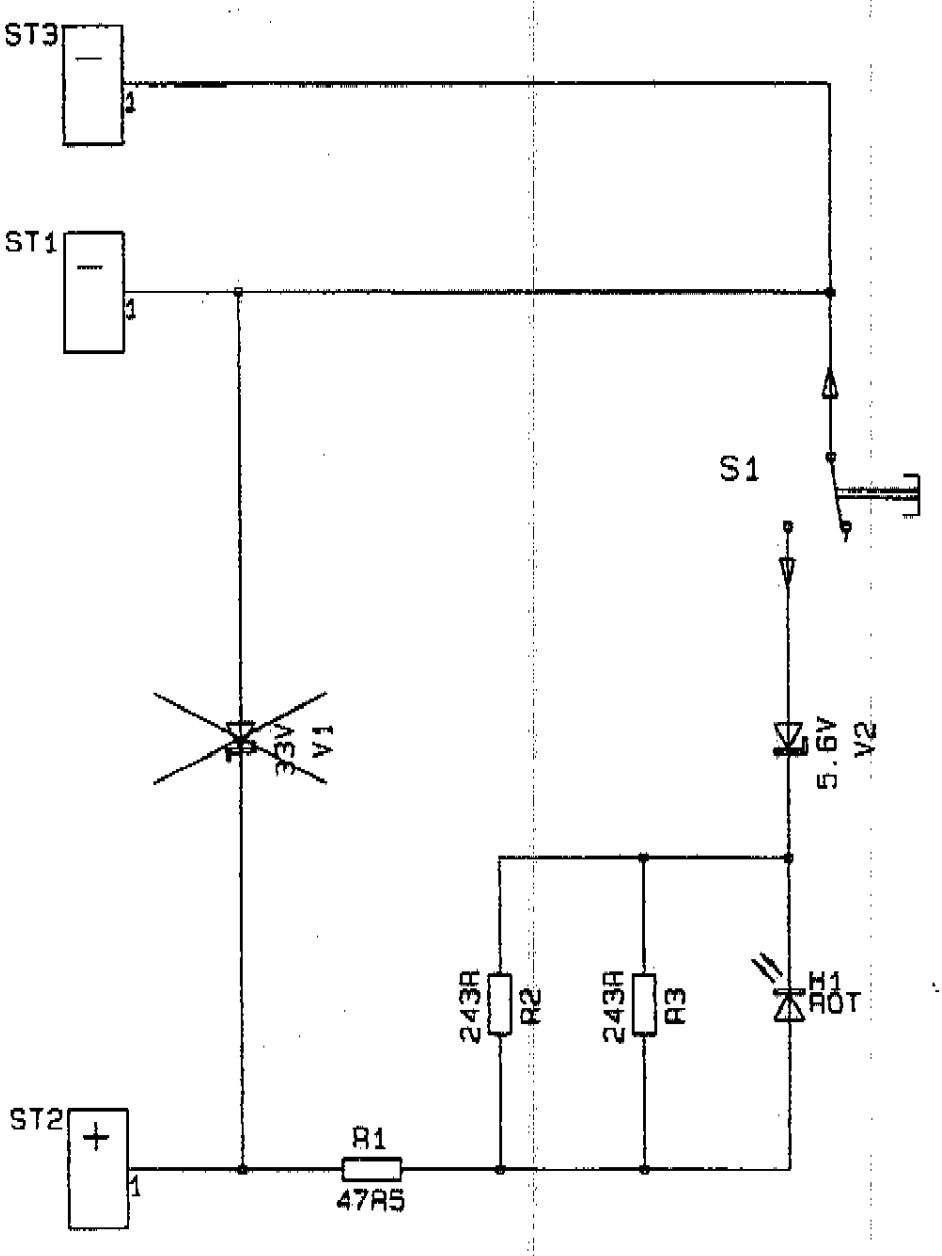
SECTION A TO EECS CERTIFICATION
REPORT No: 96(C)1004

1. INTRODUCTION

This report provides the basis for the assessment of an End of Line Device type EOL22 (Ex) as apparatus meeting the requirements of CENELEC Standards EN50 014: 1997 and EN50 020: 1994 with specific reference to clause 5.4 of EN50 020: 1994.

This report also provides the basis for the assessment of a Manual Call Point Types DM1101, DM1103 and DM1104 as apparatus meeting the requirements CENELEC Standards EN50 014: 1997 and EN50 020: 1994 with specific reference to clause 5.4 of EN50 020: 1994.

This report also provides the basis for certification of an DS-11 Ex Detector Loop System as an Intrinsically Safe System as defined in CENELEC Standard EN50 039: 1980 for Category ib, Group IIC.



= NICHT BESTUECKT
= NON ÉQUIPÉ
= NOT ASSEMBLED

Ind.	Aend.	Ind.	Aend.	Ind.	Aend.	Ind.	Aend.	Ind.	Aend.	Ind.	Aend.	Ind.	Aend.	Ind.	Aend.
B1	3.95/PFN	C	3.95/PFN	D	4.95/PFN	D1	TB40/95								

SCHALTEINSATZ
UNITE DECL. MAN. D'ALARME
CALL POINT UNIT INTER.

DMA1103A
DMA1104A

Massstab	Gezeichnet	28.02.1994	FAE
%	Geprueft	5.04.95	Hph
	Gesehen	6.10.95	Wij
Ersetzt durch:		Ersetz fuer:	

Cerberus AG Maennedorf | S4-485133 | Ind. D1