

CS 2600

Voice Alarm Central Unit

SUMMARY

1. OBJECT	3
2. ABBREVIATIONS	3
3. DESCRIPTION	3
4. PRESENTATION	4
4.1. Front view	4
4.2. Rear view	5
5. INSTALLATION	6
6. WIRING AND CONNECTION	7
6.1. UGA Connector	7
6.1.1. Presentation	7
6.1.2. Wiring	7
6.2. Aux in et Aux connectors	9
6.2.1. Presentation	9
6.2.2. Wiring	9
6.3. AES connector	10
6.3.1. Presentation	10
6.3.2. Wiring	10
6.4. DS1, DS2, General Fault, Voice Alarm connector	11
6.4.1. Présentation	11
6.4.2. DS1 and DS2 wiring	11
6.4.3. General Fault and Voice Alarm wiring	12
6.5. GPO connector	13
6.5.1. Presentation	13
6.6. RS232 connector	14
6.6.1. Presentation	14
6.6.2. Wiring	14
6.7. Monitoring module connector	15
6.7.1. Présentation	15
6.7.2. Wiring	15

596383-10/12 Les caractéristiques du produit pourront être modifiées sans préavis. Document non contractuel

6.8.	Console connector	16
6.8.1.	Presentation	16
6.8.2.	Wiring	16
6.9.	Network connector	17
6.9.1.	Presentation	17
6.9.2.	Wiring	17
6.10.	+24V AES connector	18
6.10.1.	Presentation	18
6.10.2.	Wiring	18
7.	USER INTERFACE	19
7.1.	Display	19
7.2.	Navigation keys	19
7.3.	Leds and push-buttons	19
7.3.1.	Leds	19
7.3.2.	Push-Buttons	20
7.4.	Emergency Microphone	20
7.5.	Buzzer	20
8.	DETAILED TECHNICAL SPECIFICATIONS	21
8.1.	Power Supply	21
8.2.	Console Interface	21
8.3.	Aux	21
8.4.	CIE	21
8.5.	AES	21
8.6.	Amplifier supply fault	21
8.7.	Outputs to Fire alarm devices	21
8.8.	Voice Alarm and Fault Warning outputs	21
8.9.	GPO ouputs	22
8.10.	Dimensions	22
8.11.	Environnement	22
8.12.	Other	22
8.12.1.	Messages	22
8.12.2.	Emergency Microphone	22

1. OBJECT

Le présent document présente les caractéristiques techniques du produit CS2600.

2. ABBREVIATIONS

VACIE : Voice Alarm Control and Indicating Equipment

CIE : Control and Indicating Equipement

PSE : Power Supply Equipement

LCD : Liquid Crystal Display

LED : Light Emitting Diode

GPI : General Purpose Input

GPO : General Purpose Output

3. DESCRIPTION

The control unit CS2600 is the central equipment of the B3S voice alarm system according to EN54-16 standard. It manages up to 40 monitoring units CS2003 through a RS485 bus and an audio bus. An emergency microphone, that is permanently monitored, is directly connected in front of the CS2600 to broadcast vocal messages in case of emergency.

The CS2600 can be easily managed through the use of a LCD, navigation keys. It's affordable menu is available in 2 languages and secured by the use of passwords.

It's powered supply with a 24V DC PSE.

The evacuation message is directly integrated in the CS2600.

To follow the EN54-16 requirements, the CS2600 indicates in real time the status of the Voice Alarm System through the leds. A fault log is also available through the LCD.

According to the EN54-16 standard, the CS2600 supplies « Voice Alarm Condition » and “General Fault” outputs.

The CS2600 has a 4 points connector (UGA connector) to connect the CIE. This link is monitored by the CIE and is used to send the Voice Alarm condition. This link can also be monitored by the CS2600. The CS2600 has also 3 logical inputs to read the fault informations supplied by the PSE : « Mains Fault », « Battery Fault », « Voltage Fault ».

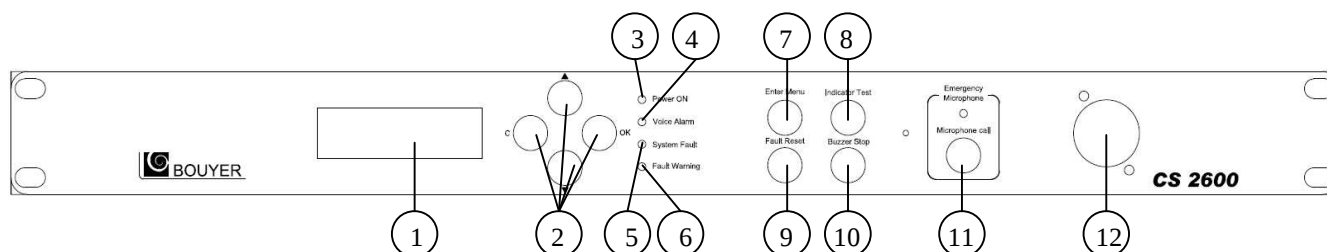
To help diagnostic, 2 leds are available at the rear of the CS2600 to show RS485 communication traffic.

An auxilliary input associated to 7 GPIs is available at the rear and can be used for background music.

2 interfaces are also available to connect non-security consoles like GX3016 or GXT4000.

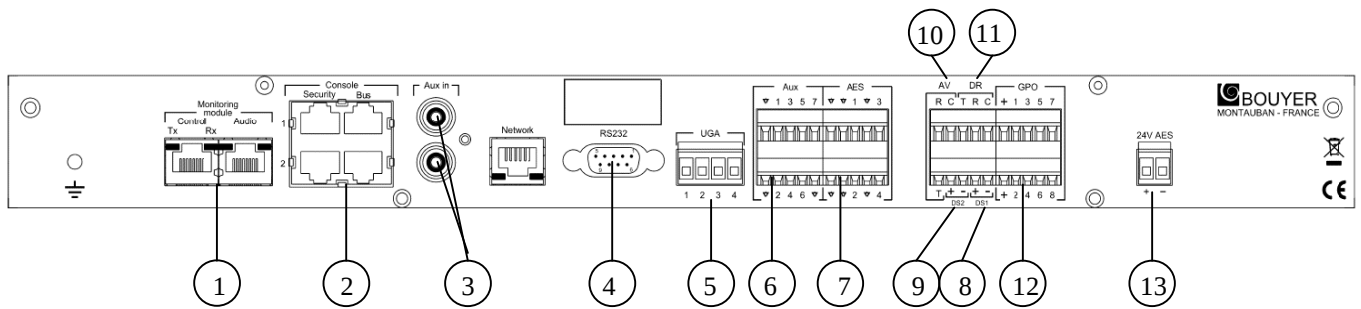
4. PRESENTATION

4.1. Front view



- 1 LCD 4 lignes of 20 characters
- 2 4 navigation keys (▲, ▼, OK, C)
- 3 Green led « Power On »
- 4 Red led « Voice Alarm »
- 5 Yellow led « System Fault »
- 6 Yellow led « Fault warning »
- 7 « Enter menu » key
- 8 « Indicator testing » key
- 9 « Fault Reset » key
- 10 « Audible Warning Stop » key
- 11 « Microphone Call » and blue led for emergency microphone call
- 12 XLR connection for emergency microphone

4.2. Rear view



- 1 Double RJ45 connector « Monitoring module » : RS485 link « Control » and audio link « Audio » to CS2003 monitoring units.
- 2 Double RJ45 connector « Console » : RS485 link and 0dbm balanced audiolink to bus « 1 » and « 2 » for GX3016/GXT4000 and Securitiy.
- 3 Double RCA connector « Aux in » : -10dbm stereo input for back ground music
- 4 DB9 female connector « RS232 » : RS232 link for servicing
- 5 Connector « UGA » : 4 points connector for the CIE link ; 2 points for the « Fault Warning » output and 2 points for the « Voice Alarm » input.
- 6 Connector « Aux » : 7 pts : GPIs for Aux function management.
- 7 Connector « AES » : 10 pts : for the PSE fault informations
- 8 Connector DS1 : 2 pts : connector to fire alarm devices.
- 9 Connector DS2 : 2 pts : connector to fire alarm devices.
- 10 Connector AV (CRT) : 3 pts : « Voice Alarm » output
- 11 Connector DG (CRT) : 2 pts : « Fault Warning » output
- 12 Connector GPO : 10 pts
- 13 Connector « 24V AES » : 2 points for the connection of the +24V power supply (from PSE)

5. INSTALLATION

Depending on the installation, please refer to the following documents :

- B3S NF Installation manual
- B3S NF Operating manual

6. WIRING AND CONNECTION

6.1. UGA Connector

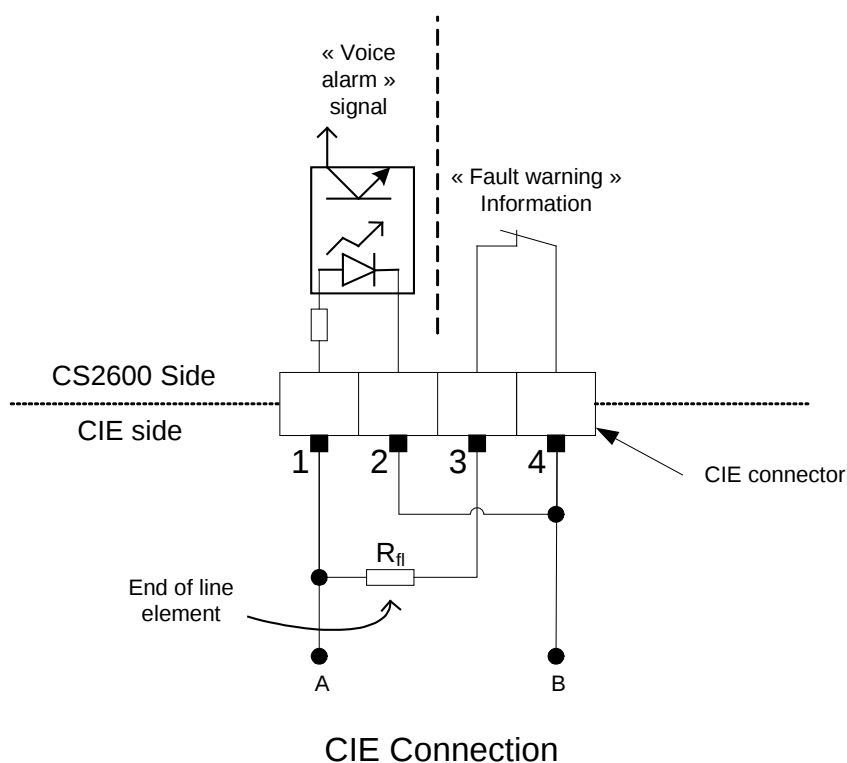
6.1.1. Presentation



The « UGA » connector is a 4 points connector :

- 2 input points for the « Voice Alarm » remote (pin 1 et 2)
- 2 output points for the « Fault Warning » information (pin 3 et 4)

6.1.2. Wiring



Connection to the CIE is achieved by the above diagram.

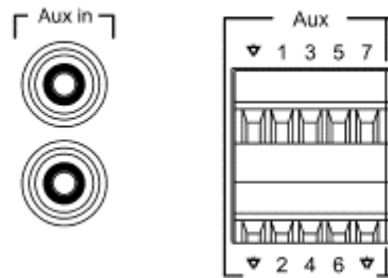
This wiring is used to start the « Voice Alarm » condition and to make the line monitoring by the CIE possible. An option on the CS2600 makes the line monitoring possible by the CS2600.

The following table sums up the different cases to achieve « Voice Alarm » condition and line monitoring operation :

Voltage in A	Voltage in B	Fonction
+24V à 48V DC	0V	« Voice Alarm » condition
Monitoring voltage ; level and polarity depends on the CIE		- Monitoring of the End of Line element R_{Ω} by the CIE - Monitoring of the link by the CS2600

6.2. Aux in et Aux connectors

6.2.1. Presentation



The « Aux in » is a double RCA connector that will receive a audio stereo signal from an external musical equipment.

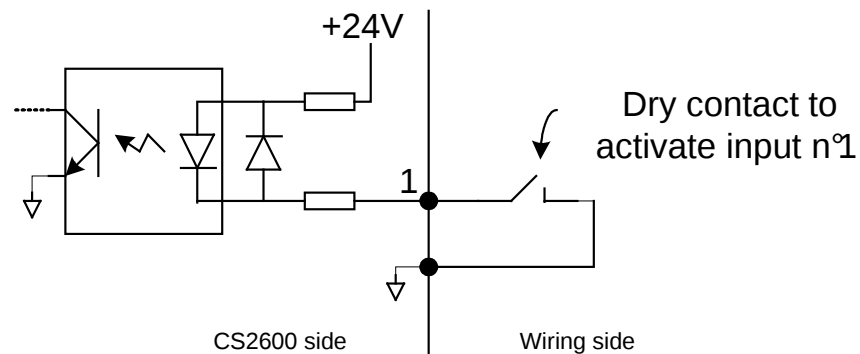
The « Aux » connector has 10 pts ; it will receive 7 logic remote signals.

- inputs are labelled from 1 to 7
- the label ' ⚡ ' is the internal 0V voltage of the CS2600.

6.2.2. Wiring

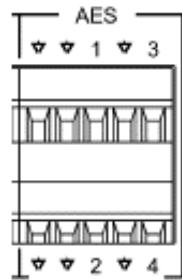
The connection of the audio signal on the “Aux in” connector can be achieved in stereo mode, the CS2600 will make the mixing of the left and right channel.

“Aux” connection is achieved as following :



6.3. AES connector

6.3.1. Presentation



The « AES » connector is a 10 pts connector ; 4 inputs can be connected there ; these inputs are the fault informations that are reported by the PSE as following :

AES-1 : mains fault

AES-2 : battery fault

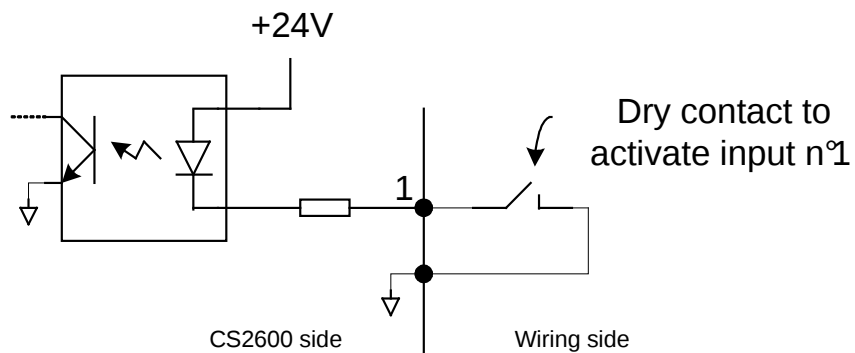
AES-3 : PSE fuse fault

AES-4 : amplifier fuse fault

- the label '△' is the internal 0V voltage of the CS2600.

6.3.2. Wiring

Wiring must be achieved as following :



6.4. DS1, DS2, General Fault, Voice Alarm connector

6.4.1. Présentation



This connector delivers 4 logical informations :

DS1 : 2 pts, DC24V voltage to fire alarm devices

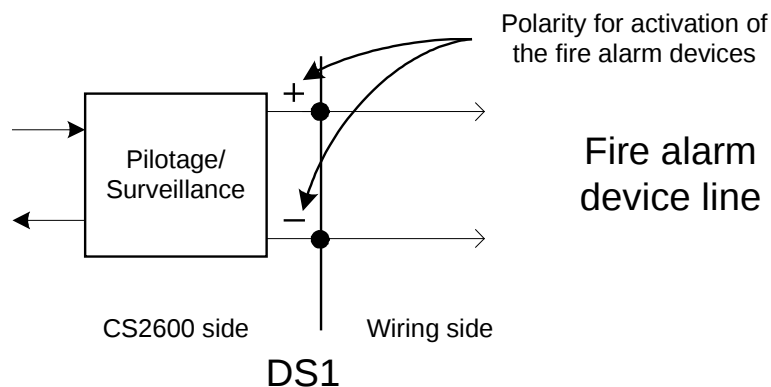
DS2 : 2 pts, DC24V voltage to fire alarm devices

DR (General Fault) : 3 pts (upper right part), dry contact (common (C) + Normally Open (T) + Normalement Close (R))

AV (Voice Alarm) : 3 pts (1 pts lower left and 2 pts upper left), dry contact (common (C) + Normally Open (T) + Normally Close (R))

6.4.2. DS1 and DS2 wiring

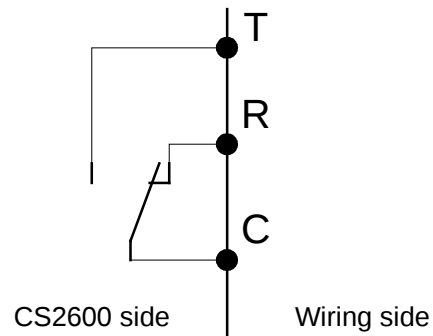
For each of the 2 fire alarm device lines DS1 and DS2, the wiring is achieved as following :



Each of the 2 lines must be ended by an end of line element = 3,9Kohm resistor (1/4W power).

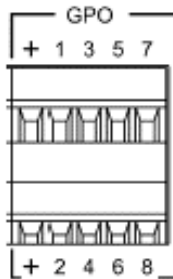
6.4.3. General Fault and Voice Alarm wiring

Each of this 2 logic signal is available as dry contact with Common (C), Normally Open (T) and Normally Close (R)



6.5. GPO connector

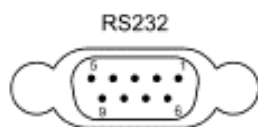
6.5.1. Presentation



The CS2600 has 8 open-collector type GPOs. Each GPO is labelled from 1 to 8 ; the + labels show the positive polarity of the internal DC24V voltage that can be used to drive an external load.

6.6. RS232 connector

6.6.1. Presentation



This connecteur is a DB9 female type connector that can be connected to a PC to achieve servicing operations on CS2600.

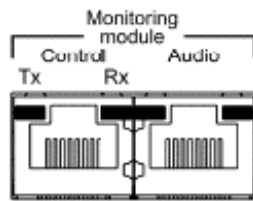
6.6.2. Wiring

Pinout is as following :

Pin	Signal
5	0V
2	RX
3	TX

6.7. Monitoring module connector

6.7.1. Présentation



This connector is a dual RJ45 : one for the control signals (« Control ») and one for the audios signals (« Audio »).

2 leds on the upper left part on the « Control » connector are labelled Tx and Rx ; the Tx led is On when the CS2600 send an information on the RS485 control bus ; the Rx led is On when the CS2600 receives an information on the RS485 bus.

6.7.2. Wiring

This connector is used to make the link between the CS2600 and the RS485 monitoring devices CS2003. Wiring is achieved with Cat 5 cables.

Pinout of « Control » connector is :

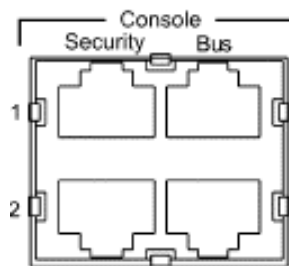
Pin number	Signal
1	NC
2	NC
3	NC
4	NC
5	NC
6	NC
7	Data + (RS 485)
8	Data - (RS 485)

Pinout of « Audio » connector is :

Pin number	Signal
1	Audio output bus GX2500 1
2	Audio output bus GX2500 1
3	Audio output bus GX2500 2
4	Audio output bus GX2500 2
5	Message audio output
6	Message audio output
7	Auxiliary audio output
8	Auxiliary audio output

6.8. Console connector

6.8.1. Presentation



This connector is used to connect the CS2600 to “ Security” or “Bus” consoles (GX3016, GXT4000).

2 bus for consoles are available (‘1’ et ‘2’).

6.8.2. Wiring

Pinout of « Security » 1 and 2 is :

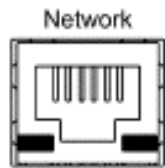
Pin number	Signal
1	Audio In
2	Audio In
3	NC
4	NC
5	0V
6	+24V
7	Data + (RS 485)
8	Data - (RS 485)

Pinout of « Bus » 1 et 2 est le suivant :

Pin number	Signal
1	Audio In
2	Audio In
3	NC
4	NC
5	0V
6	+24V
7	Data + (RS 485)
8	Data - (RS 485)

6.9. Network connector

6.9.1. Presentation



The « Network » is a RJ45 connector ; it's intended to connect the CS2600 to other Ethernet network equipments.

6.9.2. Wiring

The connection is achieved through Cat 5 type cable directly on usual network infrastructure equipment like hub, switch, ...

6.10.+24V AES connector

6.10.1. Presentation



This connector is a 2 pts intended to receive the 24V DC power supply from the PSE.

The '+' is the + 24V.

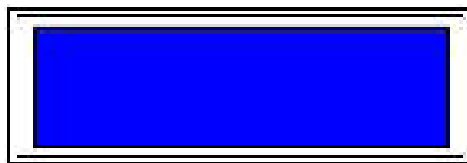
The '-' is the 0V.

6.10.2. Wiring

Connect the power supply voltage with respect to the polarity.

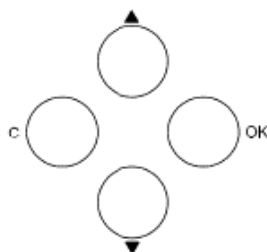
7. USER INTERFACE

7.1. Display



The display in front of the CS2600 is LCD type with 4 lines of 20 characters.

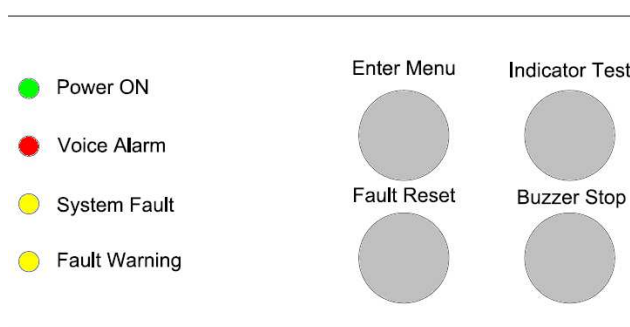
7.2. Navigation keys



The navigation keys are associated to the display and are used to achieve all parameters settings in the CS2600.

The 4 keys are : C, OK, ▼, ▲

7.3. Leds and push-buttons



A lot of leds and pushbuttons achieve some of the security functions.

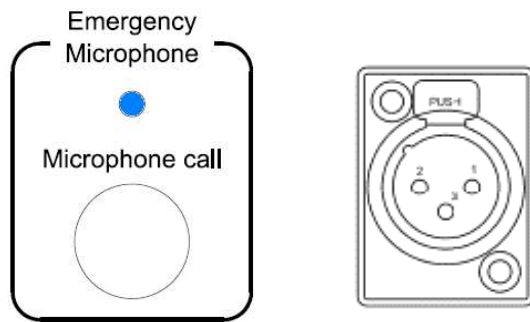
7.3.1. Leds

- 1 green led « Power ON » : is ON when the +24VDC power voltage is present
- 1 red led « Voice Alarm » : is ON to indicates the Alarm Vocal condition
- 1 yellow led « System Fault » : is ON to indicates a fault system on the CS2600.
- 1 yellow led « Fault Warning » : is ON to indicates a fault on the system.

7.3.2. Push-Buttons

- 1 pushbutton « Enter Menu »
- 1 pushbouton « Indicator Test »
- 1 pushbouton « Fault Reset »
- 1 pushbouton « Buzzer Stop »

7.4. Emergency Microphone



The use of the Emergency microphone is associated to a pushbutton and a blue led ; the XLR connector is used to connect the emergency microphone.

7.5. Buzzer

The CS2600 has an integrated buzzer that is used as an audible indicator ; it's associated to the Fault condition and also to the Voice Alarm condition.

8. DETAILED TECHNICAL SPECIFICATIONS

8.1. Power Supply

Voltage : **24V DC (from 21,7V to 28V)**

Consumption : **0,1A standby, 7A max**

Connection : **2 pts connector**

8.2. Console Interface

Power supply : **24V DC – 550mA max**

8.3. Aux

Audio input : **dual RCA, –10dbm level, unbalanced signal**

Control : **max input current 10mA**

8.4. CIE

Threshold voltage range : **from +15V to +56VDC**

Monitoring voltage : **inverted from 5V to 48VDC, direct from 5V to 7VDC**

8.5. AES

Fault information : **dry contact, max input current 10mA**

8.6. Amplifier supply fault

Fault information : **dry contact, max input current 10mA**

8.7. Outputs to Fire alarm devices

Control : **24V/1A max for each line**

Monitoring : **3,3V/1mA max for each line**

End of line resistor : **3,9Kohm (1/4W)**

8.8. Voice Alarm and Fault Warning outputs

Fault Warning output : **dry contacts Common, Normally Open, Normally Close : 24VDC/0,1A**

Voice Alarm output : **dry contacts Common, Normally Open, Normally Close : 24VDC/0,1A**

8.9. GPO ouputs

Voltage/Current : **24VDC/0,03A** for each GPO

8.10.Dimensions

Dimension : **125 x 345 x 92mm**

Poids : **2,835 Kg**

8.11.Environnement

Operating temperature : **from -5°C to +40 °C**

8.12.Other

8.12.1. Messages

Evacuation message

Length : 11s

Content : NFS32001 signal + message 'Due to a technical problem, please leave the building by the nearest exit'

8.12.2. Emergency Microphone

Type : **electret**

Sensitivity : **-66dB/μbar (-46dB/Pascal)**

Impedance : **600Ω**