

S i n c e 1 9 0 9



**GROUPE
LELAS**

**SPECIALIST IN SAFETY
AND
COMMUNICATIONS**

Telephones (explosionproof and weatherproof)
Intercom systems (explosionproof and weatherproof)
Signalizations (explosionproof and weatherproof)
Loudspeakers (explosionproof and weatherproof)
Special clean room telephones and intercoms
PAGA systems
Acoustic hoods
Calling SOS stations
Clocks



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Since its creation in 1909, LE LAS was given for vocation to solve the problems of communications in the most difficult environments. Equipment of the national navy fleet and to the firedamp mines in the beginning, LE LAS extended its experience and its dynamism to the most varied environments. Sea transports and railways, ports and airports, chemical sites, oil and gas sector, energy sector, laboratories and hospitals, civil or military administrations, etc... According to ISO 9000 certified quality procedures, the completely computerized design and production departments adapt the most recent technical contributions (like already GSM or voice over IP) on a complete range of products. The development of shared electrical and mechanical modules allows to purpose a broad line of goods easily adaptable at the most reduced costs.



MARKETS:

Heavy Industrial



- Oil/Gas [Offshore/Onshore]
- Pulp/Paper
- Waste Water Treatment Plant
- Petro Chemical
- Power Plants
- Steel
- Mining

Other Industrial



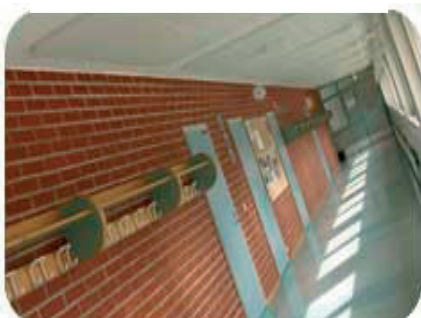
- Tunneling and subway
- Crane/Shipyards
- Bridges
- Pharmaceutical / Clean Rooms
- Manufacturing Facilities

Transport



- Aviation [Maintenance]
- Air [Passenger]
- Railroad
- Marine
- Roadside
- Tollbooths

Commercial/Institutions



- Police/Fire/Ambulance
- Hospitals
- Parking
- Taxi dispatch
- Correctional Facilities

Recreation



- Park and Museum
- Hotels, Resorts and Cruise Lines
- Stadium / Arenas
- Campgrounds

Military



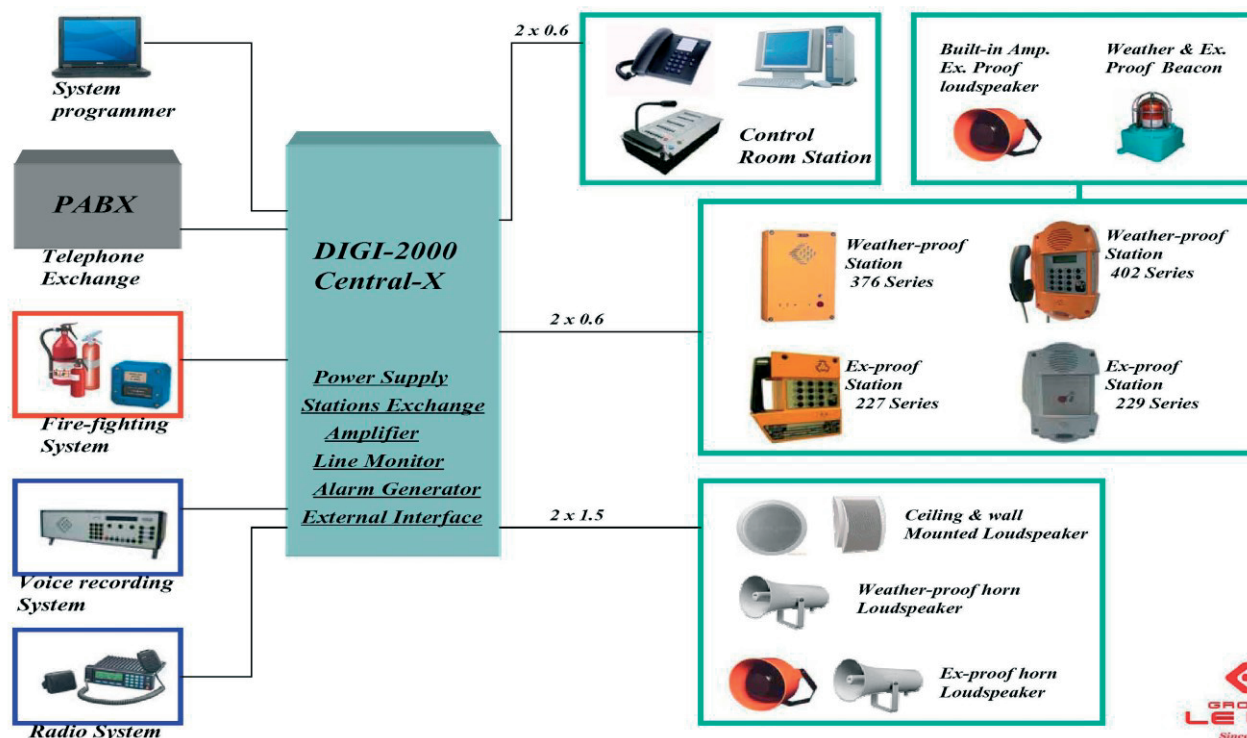
- Military Bases
- Navy
- Air force



PUBLIC ADDRESS & GENERAL ALARM SYSTEM DIGICOM

Industrial - On shore / Off shore Application

System Diagram



Feature

- Non blocking full duplex communication
- Module design facility to system expansion and Maintenance
- Highest reliability and compatibly, easy to work with other system/equipment
- Permanent system for self-monitoring real time failure detection, also hot back for PA system automatic.
- Inexpensive, simple cabling with 2 wire technology
- Max 4Km cable length between two station
- Easily configurable by keypad or Software
- 15 Alarm tones or message by Flashing memory. Customize facility via USB port
- Different Indoor/Outdoor station model for different customer's application

Benefits

- Public address, general alarm and intercom system will be 3 independence system as customer demand.
- Individual speaker group. Combined groups of speaker and all speakers simultaneously at work.
- All station and devices continuously monitored and controlled
- Open and modular design allowing easy to work with other system such as Radio/PABX/Fir fighting system etc
- Manually or automatically triggered alarm sequences to reduce control room personnel workload during emergencies.
- Group/All call from local slave station, to facility the use of system. Alarm active by local station with authorization



System Function

- Public Address Function
- Alarm and Warning Function
- Full Duplex Communication Function
- All Call/Group Call
- Conference Function
- Hands free and Pack Off Call Option
- 15 Alarm/message with 16 levels Priority
- Short Circuit/Open Circuit Or Leakage Occurs Protection Function.
- Call transfer function, to contain station or broadcasting in plant
- VoIP Function As Demand

Interface Of System

- Analogue/Digital Telephone Interface
- 16 Dry contact Relays For Detector System
- Interface To Other Intercom System
- Fiber Optic , Copper Wire or E1 Interface

Integration Of System

- PABX System
- Radio Walkie-Talkie System
- Fire And Gas Detector System
- Entertainment System like FM/AM receiver, CD Player, Tape deck etc.

Safety Function Of System

- Realtime Phone station monitoring
- Speaker loop monitoring
- Amplifier monitoring
- Battery backup (UPS)

Software Maintenance

- Tele-surveillance via Master station or PC
- Real time system programming/modification by RS485 or IP

Addition Function

- External Flashing Beacon and Sounder
- Voice Record
- Loudspeaker with integrated decentralize amplifier

Description General

The DIGICOM2000 PA /GA system is especially suited for the industry application, such as Pharmacy, chemical, petrochemical and energy industries due to its rugged construction.

The modular design allows DIGICOM2000 system can be used as Public address, General alarm, Intercom system.

Intercom system provides 32 - 576 phone line, with non-blocking and full duplex communication. Each telephone can establish a conversation by dialing number (Max 9 directly number possible.) or Paging target. Phone station also can establish full duplex conversation with Radio system by dialing the number of Radio base station. Walkie-talkie dialing the number of phone station via base station to establish a half duplex conversation.

The DIGICOM2000 is also a standard Public address system for normal operation, to transmit information, command or announcement. Also it can diffuse the audio signal from PABX system.

The DIGICOM2000 system is utilized as warning system to protect personnel and equipment. Customized alarm message and priority to Max 15 different zone or all of plant by software. In the event of warning, acoustic and optical signals are released. There are two different ways to active alarm – manually or automatically. Also the authorized local phones can active alarm with pre-record number.

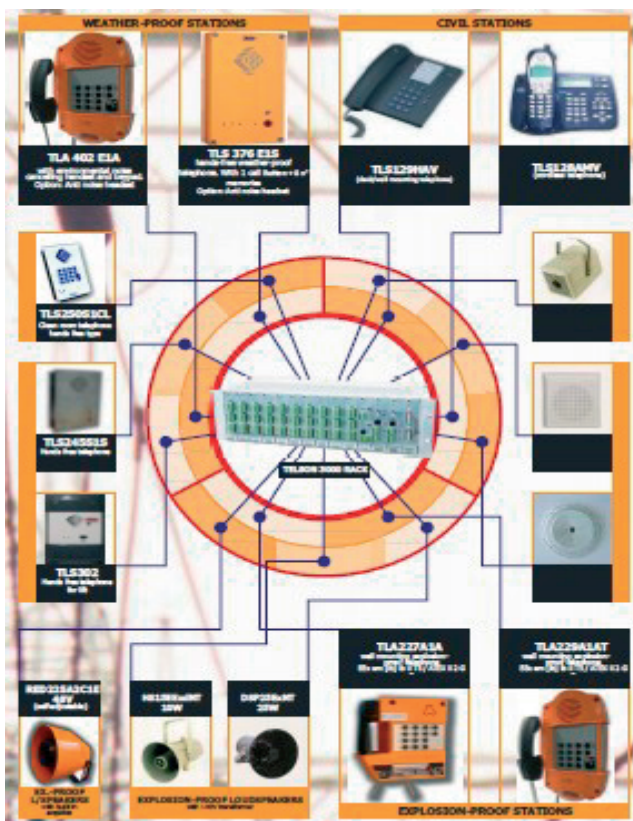
As a part of the basic function a highly integrated monitoring system is implemented. This monitoring checks all phone station, amplifier and loudspeaker loop by all fundamental signal routings of system. Any malfunction will be remind by LED or forwarded to display of master station.



TELECOM AND INTERCOM SYSTEM

Industrial - On shore / Off shore Application

SYSTEM DIAGRAM



GENERAL PRESENTATION

TELSON 3000 is an innovative system, satisfies the industrial requirement in terms of communication for the industrial plants.

In particular, the TELSON 3000 system offers:

- Performance like a standard telephone system, when the TELSON3000 is connected to any PABX;
- Performance like a standard Page Party line intercom system, with the possibility to broadcast the message like a P.A. system,

An estimable decrease of the installation cost, due to the very simple telephone architecture:

- Each telephone set is wired to the TELSON 3000 exchange via one standard twisted telephone pair;
- Fully programmable numbers of communication lines trough the loudspeakers and/or the conversation lines (the standard configuration can handle up to 6 chat (party) lines between the telephone stations - 1 call (paging) line over the loudspeakers net - 2 direct calls to the Control Room stations);

USING TELSON 3000 AS A PAGE & PARTY LINES INTERCOM SYSTEM

When the dialing facility is not required, the **TELSON 3000** system can operate as standalone unit. All the telephone terminals are connected to the **TELSON3000** unit via a standard twisted telephone pair. The architecture of the system doesn't change even TELSON the customer will require, in any moment, the connection to the PABX.

The **TELSON 3000** "intercom" system allows:

- To make a call for the required person, broadcasting the paging message on one or more zone loudspeakers nets or trough an all-call;
- A lot of simultaneous private conversations between the users
- To send a call signal to one or two Control Room Stations: the operator can therefore activate the conversation on the established party line.

The **TELSON3000** system is designed for informing automatically the users about the status of the lines via some automatic "voice" messages. In this way, the customer doesn't need any special training for using the system.

The **TELSON3000** system can operate with or without the "anti feed- back" circuit. When the circuit is installed, the **TELSON3000** solves in a smart and total way the feed-back acoustic problem.



USING TELSON 3000 AS A TELEPHONE SYSTEM

In this case, the TELSON 3000 central unit must be wired to a PABX. Each telephone station is connected to the PABX and can access to its programmed features, including the trunk connection. The user can decide freely if he wants to use the station as a telephone or as an intercom, dialing "0" to operate onto the telephone PABX system or "9" to operate onto the intercom system.

CONFIGURATION EXAMPLES

LOUDSPEAKERS NET

Two configurations may be allowed:

With a local **decentralized amplification**, based on the loudspeakers with built-in amplifier, designed and manufactured by LE LAS for meeting all the industrial demands.

In addition to the standard amplified loudspeaker, LE LAS offers also the amplified and self-adjustable loudspeakers (RED series), which detect the noise of the surrounding area and adjust automatically their own audio output in order to compensate the noise level.

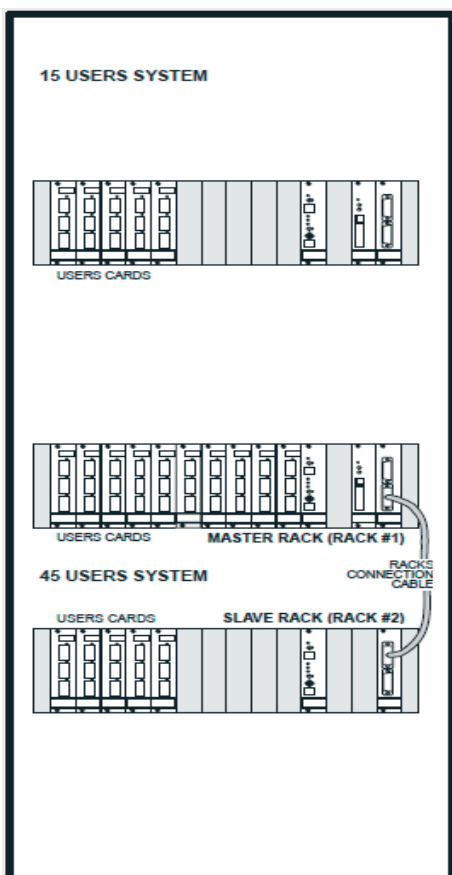
In addition, the loudspeakers net is really flexible and modular, because each loudspeaker has an own amplifier and the customer doesn't calculate any additional power and/or he has not to change the central power amplifier for increasing the audio power in the field.

Furthermore, the loudspeakers net have the maximum level of reliability and redundancy, because in case of fault on one amplifier, the user loses only one loudspeaker.

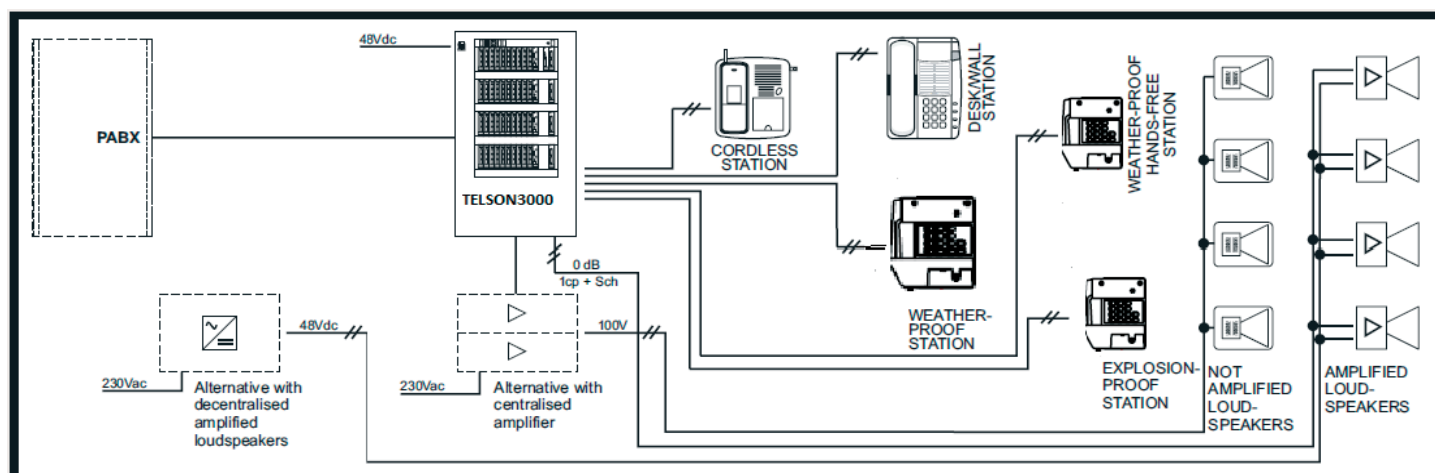
With a **centralized amplification**, which is integrated in TELSON 3000 when Loudspeakers net are already existing.

Typically, the central amplifiers and each loudspeaker have the output over 100V line transformers.

The 400W powers amplifiers by LELAS are equipped with own power supply, balanced output, protection against transients, activation drivers and a diagnostic circuit that supervises the loudspeakers lines.



CONNECTION SCHEME



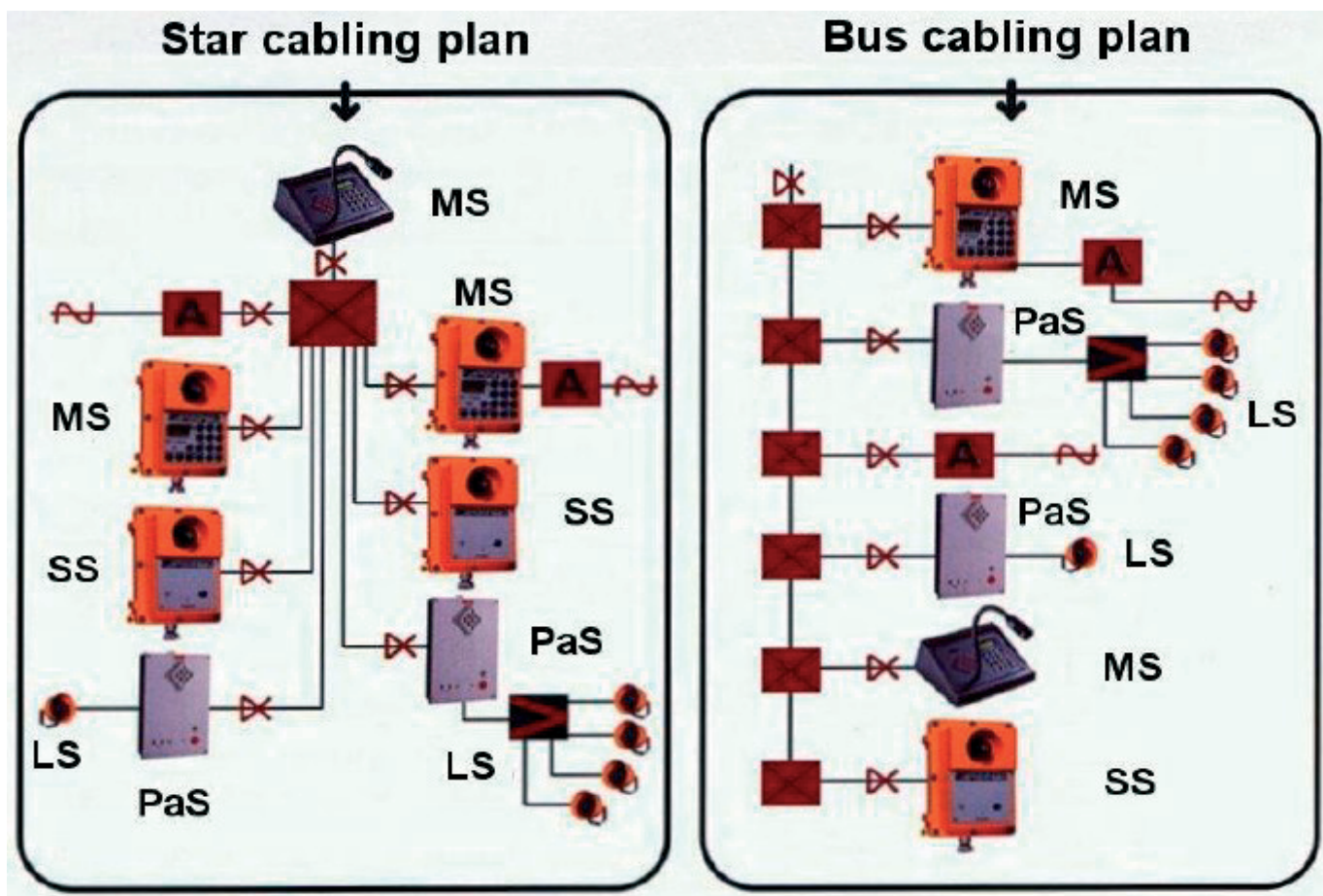


PUBLIC ADDRESS & INTERCOM SYSTEM

This system is specially designed to operate in the most hostile conditions: noise, corrosion and weather extremes, vandalism. The 'UNIVERSAL' range of intercoms are the result of LE LAS experience of installing such equipment in hundred of locations in extreme conditions, throughout the world.

This system also provides Public Address facilities using internal and external loudspeakers.

Cabling System Diagram



THE DESIGN OF UNIVERSAL

Microprocessor technology and integrated switching internal to each station :

ADVANTAGES :

1. Safety and cost savings as no central cabinet needed
2. No risk of total failure
3. High sound quality (up to 120 dB without external loudspeakers)
4. Explosionproof, weatherproof or standard equipment
5. The cabling is carried out on a single bus, or multiple in star configuration, according to the needs of each site.



- **Ease of listening:** Every communication is perfectly audible in all circumstances. The volume of the loudspeaker is optimized and adjustable remotely from the Master Station
- **Safety:** Substation operates in 'hands free' mode and Master Station Talk/Listen alternatively

UNIVERSAL CONFIGURATION

- **Star type network**
Consists of a Master Station and up to 99 Sub-Stations only direct call to Master station)
Option: Second Master Station with function of transfer
- **Intercom type network**
Consists of up to 100 multi-way Master Stations (interconnection possible between all stations)



TL376

POSSIBILITIES OF UNIVERSAL

- Individual call
- General call to all Stations and all loudspeakers
- Conference
- Group call
- Possibility of installing only loudspeakers with amplifier box for public address
- Easy programming from Master Station (sound volume, numbers of stations, type of programs, quality of rings before answering and so on)
- Possibility of recording the conversations
- Possibility to make interface with PABX system – general call to Universal system
- Possibility to connect the box with recorded messages and alarms
- LCD display on Master station shows: programmed codes, storage in memory of calling stations, set up of several stations in conference and so on.
- Message distributed across on or several predefined zones (general call priority, or zone call), by using network stations and/or amplified loudspeakers or volume amplifier with loudspeakers.



TCH153



TLH214

UNIVERSAL INSTALLATION

Simple and very flexible, installation is independent of configuration

- **Bus installation:**
Connection of stations in parallel, on bus cable, one or two pairs telephone type, 0.9mm, with screen cable
- **Star installation :**
Connection of each station by a single cable, with 0.9 mm screen cable. Central junction box providing easy installation, bus, star or mixed.
- **Power supply :**
48V(24 adjustable) central or local (above 500 meters) according to the sitting of stations. Installation possible on existing low current cable network or optical fiber
- **Choice of equipment**
Medium or high volume stations (5 or 15 Watts). Master stations and substations are available in desk mounted, flush-mounted, weather proof, or explosion proof version.
- **Options :**
Audio visual extension ringer, Sound extension by amplifier or loudspeaker, Remote control by relay. Tele-surveillance. acoustic booths. Link to amplifier exchange. radio network. etc.....



TCH250



RED225 / 364

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TCH 153 PGBLT : Table Master station

Power : 24 - 48 VDC, Option 230 VAC

Weight: 2 kg

Dimensions: 253 x 108 x 204 mm

Material/Colour: Polycarbonate plastic/ Black

Max. / min. amb. Temp: - 40 °C / + 60°C

Loudspeaker: 5 Watt

Maximum level of sound: 90 dB/ 1 meter

Adjustable sound level

LCD display: to show the programmed codes and calls

Microphone: "swan neck", automatic gain control

Functions: programming, general call, conference call, group call, individual call

Connection: bus or star cable connection

Cable: 1 or 2 pair, 0, 9 mm²

TLH 376 EG: Weatherproof Master station

Power : 24 - 48 VDC, Option 230 VAC

IP rating (weatherproof protection): IP 66

Weight: 4, 2 kg

Dimensions: 316 x 190 x 65 mm

Material/Colour: Aluminium/ Orange

Max. / min. amb. Temp: - 40 °C / + 60°C

Loudspeaker: 5 Watt

Maximum level of sound: up to 110 dB/ 1 meter

Adjustable sound level

LCD display: to show the programmed codes and calls

Microphone: automatic gain control

Functions: programming, general call, conference call, group call, individual call

Mounting: wall, on screws

Connection: bus or star cable connection

Cable: 1 or 2 pair, 0, 9 mm²



TLH 214 AG: Explosionproof Master Station

Power : 24 - 48 VDC, Option 230 VAC

IP rating (weatherproof protection): IP 66

Weight: 8 kg

Dimensions: 210 x 300 x 190 mm

Material/Colour: Aluminium/ Orange

Max. / min. amb. Temp: - 40 °C / + 60°C

Loudspeaker: 15 Watt

Maximum level of sound: up to 120 dB/ 1 meter

Adjustable sound level

LCD display: to show the programmed codes and calls

Microphone: automatic gain control

Functions: programming, general call, conference call, group call, individual call

Mounting: wall, on screws

Resistant to chemicals and corrosion

Explosionproof protection: ATEX EE xd II B T6 II2G

Connection: bus or star cable connection

Cable: 1 or 2 pair, 0, 9 mm²



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TCH 153 P1BL : Table Slave Station

Power : 24 - 48 VDC, Option 230 VAC

Weight: 2 kg

Dimensions: 253 x 108 x 204 mm

Material/Colour: Polycarbonate plastic/ Black

Max. / min. amb. Temp: - 40 °C / + 60°C

Loudspeaker: 5 Watt

Maximum level of sound: 90 dB/ 1 meter

Adjustable sound level

Microphone: "swan neck" in option, noise cancelling function

Functions: direct call to Master Station, answering to call, joining Conference

Connection: bus or star cable connection

Cable: 1 or 2 pair, 0,9 mm²

TLH 376 E1G: Weatherproof Slave Station

Power : 24 - 48 VDC, Option 230 VAC

IP rating (weatherproof protection): IP 66

Weight: 4,2 kg

Dimensions: 316 x 190 x 65 mm

Material/Colour: Aluminium/ Orange

Max. / min. amb. Temp: - 40 °C / + 60°C

Loudspeaker: 5 Watt

Maximum level of sound: up to 110 dB/ 1 meter

Adjustable sound level

Microphone: automatic gain control

Functions: direct call to Master Station, answering to call, joining Conference

Mounting: wall, on screws

Connection: bus or star cable connection

Cable: 1 or 2 pair, 0,9 mm²



TLH 214 A1G: Explosionproof Slave Station

Power : 24 - 48 VDC, Option 230 VAC

IP rating (weatherproof protection): IP 66

Weight: 8 kg

Dimensions: 210 x 300 x 190 mm

Material/Colour: Aluminium/ Orange

Max. / min. amb. Temp: - 40 °C / + 60°C

Loudspeaker: 15 Watt

Maximum level of sound: up to 120 dB/ 1 meter

Adjustable sound level

Microphone: automatic gain control

Functions: direct call to Master Station, answering to call, joining Conference

Mounting: wall, on screws

Resistant to chemicals and corrosion

Explosionproof protection: ATEX EE xd II B T6 II2G

Connection: bus or star cable connection

Cable: 1 or 2 pair, 0,9 mm²



TELEPHONES LE LAS (FRANCE Head Office)

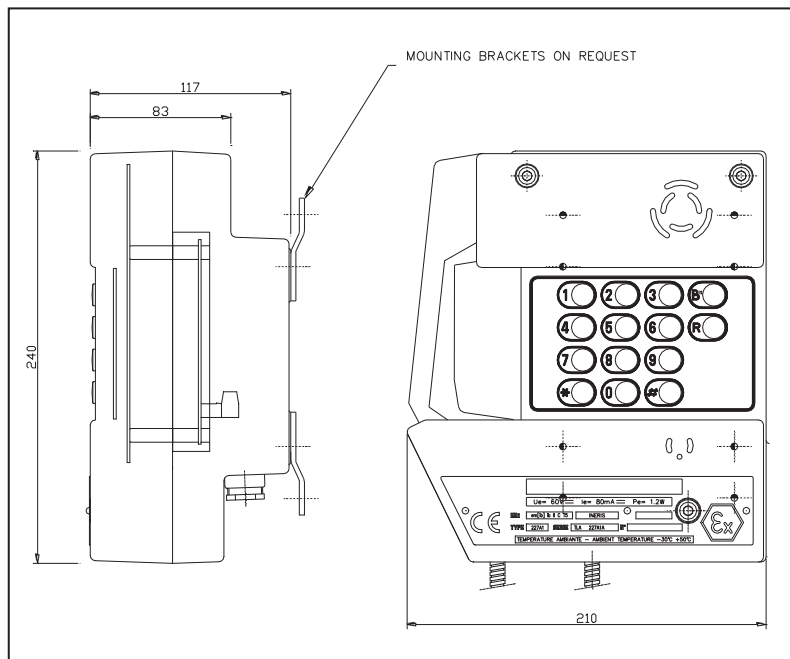
Tel:0033 1 48766262

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Web-site:www.lelas.fr

All screws are stainless-steel only



Explosion-proof EEx & IP66 ACB telephone
for wall mounting, aluminium light-alloy body
P/N TLA227A

Electrical Characteristics:

| | |
|------------------------|--------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 30mA |
| Ringing voltage: | 35 – 80 Vac |
| Dialing: | DTMF/pulse |
| Flashing/earth: | adjustable |
| Electronic Bell: | 90dB at 1 m. |
| Hook: | magnetic type |
| Noise cancelling: | noise cancelling circuit |
| Other characteristics: | CCITT Q23 |

Functions:

| | |
|-------------|-------------------------|
| Keypad: | 12 keys (*, #, 0,1...9) |
| BIS button: | Last number redial |
| R button: | Flash/Earth |

Programming:

Microprocessor controlled, the TLA227A is 100% programmable via remote telephone, through DTMF tones.

Body material / Color:Aluminum Light-alloy / RAL2003
Handset material / color:Aluminum Light-alloy / Black
Handset cord:stainless steel (INOX) 200kg resistance
Mounting:on wall
Termination:Inside screw connections
Dimensions:210 X 240 X 117 mm
Weight:4,0 kg
IP-rating:66
EEx protection:ATEX II2GD - EEx ib em IIC T5
Max. / min. amb. Temp:-40 °C / + 60°C
Cables inlets:(2 cableglands for cable ϕ 5 – 8 mm)
Opening:3 screws on front panel for easy access
Maintenance:
all circuits and control devices are fixed on the easy removable front plate for a very quick substitution of equipment in field

Available Versions:

TLA227A1A : Standard type with handset and keypad
TLA227A1AL : Standard type with 1.7 handset cord
TLA227A1AT : Standard type with hands free function
TLA227A2A : ATEX EEx em [ib]ib I for Mining use



Installation, Operation and Maintenance Procedures

- This equipment is EEx and it must be installed by skilled personnel
- Open the front pivoting front part unscrewing the 4 screws
- Pass the cables through the cableglands being sure that the cable fit with the rubber gasket
- Connect the telephone line wires at the screw terminals (see operator's book)
- Close the front panel and fix the 3 screws (following the rules for classified areas)



This equipment is supplied with a 2 years warranty against defective workmanship

TELEPHONES LE LAS reserves the right to alter specifications without notice.

TELEPHONES LE LAS (FRANCE Head Office)

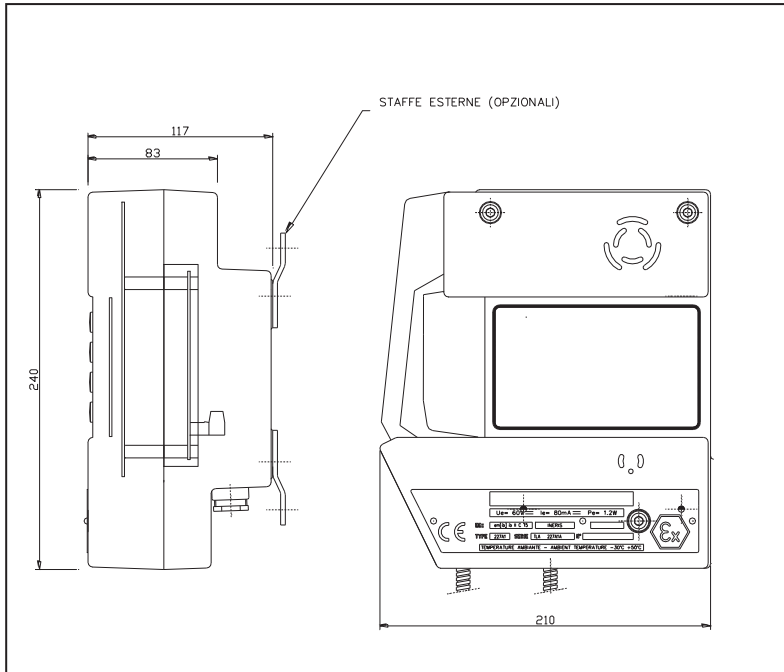
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E-mail: lelas@lelas.fr

Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel only



Body material / Color:.....Aluminum Light-alloy / RAL2003
 Handset material / color:Aluminum Light-alloy / Black
 Handset cord:stainless steel (INOX) 200kg resistance
 Mounting:on wall
 Termination:Inside screw connections
 Dimensions:210 X 240 X 117 mm
 Weight:4,0 kg
 IP-rating:66
 EEx protection:EEx em [ib] ib IIC T5 / ATEX II 2 G D
 Max. / min. amb. Temp:-40 °C / + 60°C
 Cables inlets:(2 cable glands for cable ϕ 5 – 8 mm)
 Opening:3 screws on front door for easy access

Maintenance:

all circuits and control devices are fixed on the easy removable front plate for a very quick substitution of equipment in field

Installation, Operation and Maintenance Procedures

- This equipment is EEx and it must be installed by skilled personnel
- Open the front pivoting front part unscrewing the 3 screws
- Pass the cables through the cable glands being sure that the cable fit with the rubber gasket
- Connect the telephone line wires at the screw terminals (see operator's book)
- Close the front panel and fix the 3 screws (following the rules for classified areas)

This equipment is supplied with a 2 year warranty against defective workmanship



TELEPHONES reserves the right to alter specifications without notice.

Explosion-proof EEx & IP66 Fire telephone
 for wall mounting, aluminium light-alloy body
P/N TLC227A1

Electrical Characteristics:

| | |
|------------------------|--------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 30mA |
| Ringing voltage: | 35 – 80 Vac |
| Electronic Bell: | 90dB at 1 m. |
| Hook: | magnetic type |
| Noise cancelling: | noise cancelling circuit |
| Other characteristics: | CCITT Q23 |

The CB version (no keypad) is suitable to be connected to a Telephone Line Concentrator (TCT106) or to a PABX with Hot-Line function.

Available Versions:

TLC227A1A : take off handset and call the pre-program N° by PBX

TLC227A1A/X : take off handset and call the pre-program N° of telephone set

TLC227A1AT : With hands free function

EEx CERTIFICATE: INERIS 03ATEX0118X



EXPLOSION-PROOF IIC TELEPHONE HANDSET/KEYPAD FLASHING BEACON TLA 229 A

TELEPHONES LE LAS (FRANCE Head Office)

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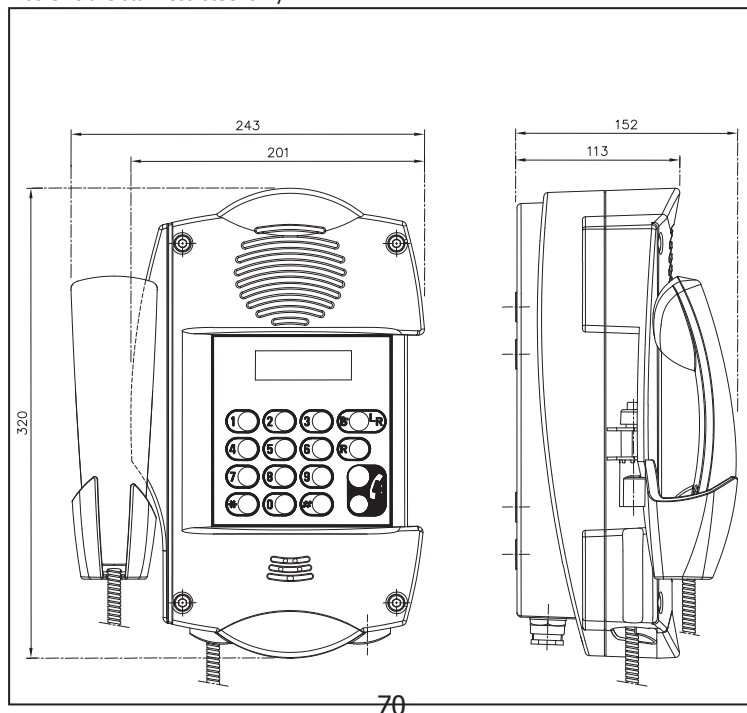
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Web-site:www.lelas.fr

All screws are stainless-steel only

Explosion-proof EEx IIC IP66 telephone
for wall mounting, outdoor, for the locale
industrial and noisy
P/N TLA 229 A



Electrical Characteristics:

| | |
|-------------------------|--------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 30mA |
| Ringing voltage: | 35 – 80 Va |
| Dialling: | DTMF / decimal |
| Flashing/earth: | adjustable |
| Electronic Bell: | 90dB at 1 m. |
| Visual calling signal : | On require |
| Noise cancelling: | noise cancelling circuit |
| Hook: | magnetic |
| Conversation Mode: | By handset |

Others:

CCITT Q23



Body material / Color:.....Polyester plastic / RAL2003(*)
Handset material / color :Polyester plastic / Black
Handset cord:stainless steel (INOX) 100kg resistance
Loudspeaker/microphone:vandal resistant
Mounting:on wall
Termination:Inside screw connections
Dimensions: : 201 X 320 X 113 mm
Weight:2,3 kg
IP-rating:.....IP66
EEx protection:EEx em [ib] ib IIC T5 / ATEX II 2 G D
Max. / min. amb. Temp:.....-40 °C / + 60°C

(*) : Black, Red as demand

Available Versions:

TLA229A1 : Telephone ATEX IIC with handset and keypad

TLA229A1F: Telephone handset, keypad and combined beacon

TLA229A1FL: with handset, keypad , display and combined beacon



Installation, Operation and Maintenance Procedures

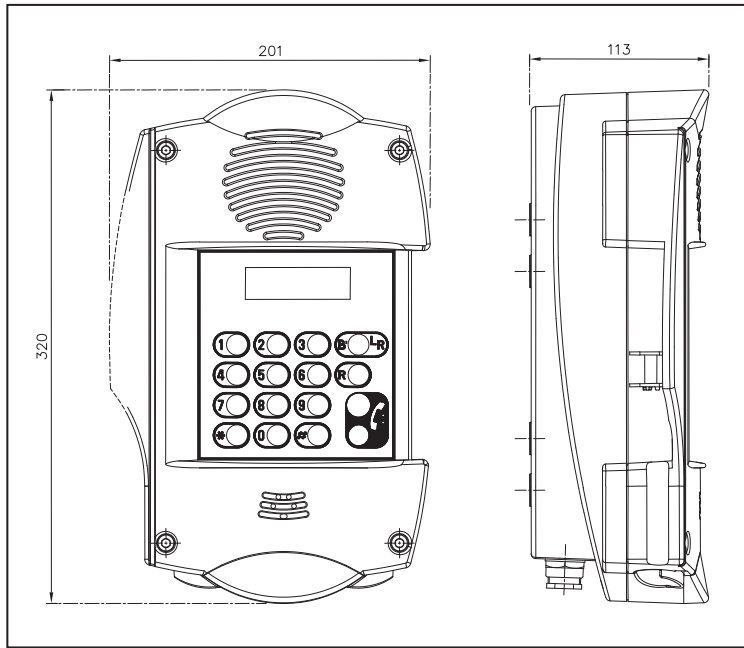
- Open the pivoting front panel removing the three screws.
- Pass the cables through the cable glands being sure that the cable fit with the rubber gasket
- Connect the telephone wires at the screw terminals as indicated in the operator's book
- Make a functional test calling another extension and asking to be re-called
- Adjust the volume of the bell (see operator's book)
- Adjust the sensitivity of the microphone (see operator's book)
- Close the front panel paying attention to the position of the gaskets
- This equipment is supplied with a 2 year warranty against defective workmanship

EXPLOSION PROOF TELEPHONE EEx II C HEADSET / DOUBLE FUNCTION KEYPAD TLA 229 A1/XC

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E-mail: lelas@lelas.fr

Fax:0033 1 48768304
Web-site:www.lelas.fr

All screws are stainless-steel only



Telephone set used in
explosive "ATEX" atmosphere
P/N TLA 229 A1/XC

Electrical Characteristics:

| | |
|-------------------------|---|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 40mA |
| Ringing voltage: | 35 – 80 Va |
| Dialling: | DTMF / decimal |
| Flashing/earth: | adjustable |
| Electronic Bell: | >90dB at 1 m. |
| Visual calling signal : | On require |
| Noise cancelling: | noise cancelling circuit |
| Hook: | Automatic |
| Conversation Mode: | hands free/headset with Micro CCITT Q23 |

Others:

Options:

- Flashing integred card
- Telesurveillance



Body material / Color:.....Polyester plastic / RAL2003(*)
Handset material / color :Polyester plastic / Black
Handset cord:stainless steel (INOX) 100kg resistance
Loudspeaker/microphone:vandal resistant
Mounting:on wall
Termination:Inside screw connections
Dimensions: : 201 X 320 X 113 mm
Weight:2,3 kg
IP-rating:.....IP65
EEx protection:EEx em [ib] ib IIC T5 / ATEX II 2 G D
Max. / min. amb. Temp:.....-40 °C / + 60°C
Maintenance:

all circuits and control devices are fixed on the easy removable
front plate for a very quick substitution of equipment in field

(*) : Black or Red as demande



Installation, Operation and Maintenance Procedures

- Open the pivoting front panel removing the three screws.
- Pass the cables through the cable glands being sure that the cable fit with the rubber gasket
- Connect the telephone wires at the screw terminals as indicated in the operator's book
- Make a functional test calling another extension and asking to be re-called
- Adjust the volume of the bell (see operator's book)
- Adjust the sensitivity of the microphone (see operator's book)
- Close the front panel paying attention to the position of the gaskets

This equipment is supplied with a 2 year warranty against defective workmanship



TELEPHONES LE LAS (FRANCE Head Office)

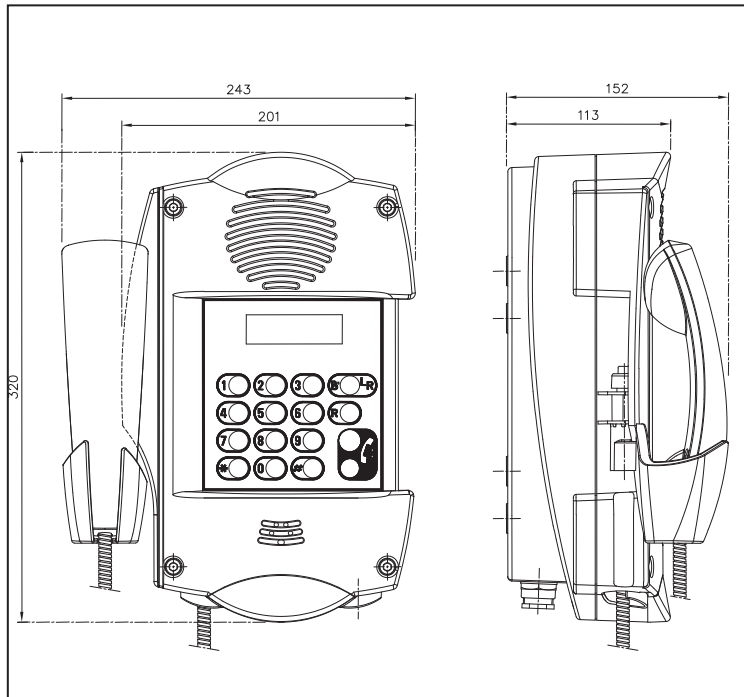
Tel:0033 1 48766262

E-mail: lelas@lelas.fr

Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel



Weather proof IP66 telephone
for wall mounting, indoor or outdoor, for the locale
industrial and noisy
TLA 402 E2

Electrical Characteristics:

| | |
|-------------------------|--------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 40mA |
| Ringing voltage: | 35 – 80 Va |
| Dialling: | DTMF / decimal |
| Flashing/earth: | adjustable |
| Electronic Bell: | 90dB at 1 m. |
| Visual calling signal : | On require |
| LCD: | On require |
| Noise cancelling: | noise cancelling circuit |
| Hook: | magnetic |
| Conversation Mode: | By handset |
| Others: | CCITT Q23 |

Available Versions:

TLA402E2A/XC : display+8 N° memories+ Anti-noisy headset socket + hands free function

TLA402E2AT : display+8 N° memories+ remote control + hands free function

TLA402E2FT : display+8 N° memories+ remote control + hands free + integrated flashing beacon

Body material / Color:.....Polyester plastic / RAL2003(*)
Handset material / color :Polyester plastic / Black
Handset cord:stainless steel 100kg resistance
Loudspeaker/microphone:vandal resistant /5W
Mounting:on wall
Termination:Inside screw connections
Dimensions: : 201 X 320 X 113 mm
Weight:.....2,3 kg
IP-rating:.....IP66
Max. / min. amb. Temp:.....-40 °C / + 60°C
Maintenance:

all circuits and control devices are fixed on the easy removable front plate for a very quick substitution of equipment in field

(*) Color: Black and Red as demand



Installation, Operation and Maintenance Procedures

- Open the pivoting front panel removing the three screws.
- Pass the cables through the cable glands being sure that the cable fit with the rubber gasket
- Connect the telephone wires at the screw terminals as indicated in the operator's book
- Make a functional test calling another extension and asking to be re-called
- Adjust the volume of the bell (see operator's book)
- Adjust the sensitivity of the microphone (see operator's book)
- Close the front panel paying attention to the position of the gaskets
- This equipment is supplied with a 2 year warranty against defective workmanship

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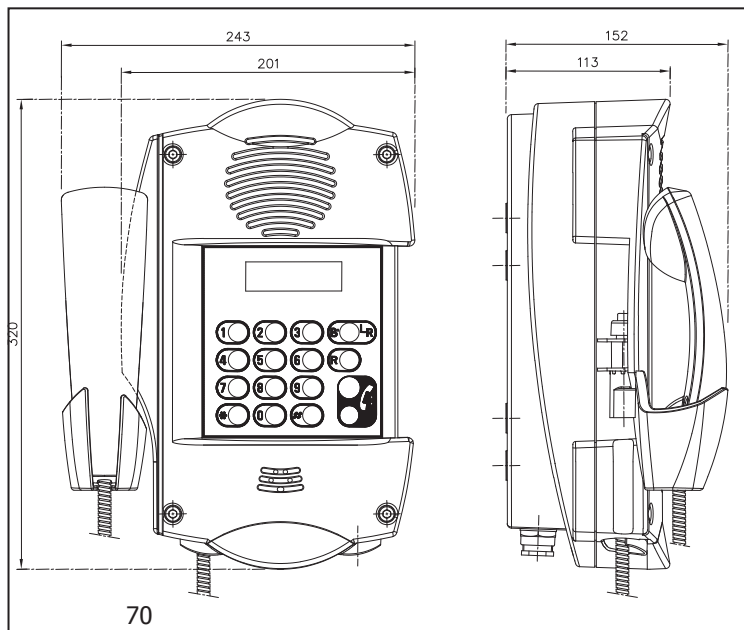
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Weather proof IP66 VoIP telephone
for wall mounting, indoor or outdoor, for the locale
industrial and noisy
TLA 402 Series

Electrical Characteristics:

| | |
|-------------------------|--------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 40mA |
| Ringing voltage: | 35 – 80 Va |
| Dialling: | DTMF / decimal |
| Flashing/earth: | adjustable |
| Electronic Bell: | 90dB at 1 m. |
| Visual calling signal : | On require |
| LCD: | On require |
| Noise cancelling: | noise cancelling circuit |
| Hook: | magnetic |
| Conversation Mode: | By handset |

VOIP Characteristics:

Support H.323 v4, compatible with most H.323 v1-v4 system and devices

Built in H.323 proxy support to pass NAT

Support MGCP RFC2705

Support SIP RFC3261

Support IAX2

Support Net2phone private protocol

Fast start and H.245 tunneling

Outband DTMF transmit by H.245 user input or Q.931 keypad

IEEE 802.3 / 802.3 u 10 Base T / 100Base TX

Major G.7XX and gsm610 audio codec

Caller ID send and receive by Q.931

Provide direct IP address to IP address call mode, direct

DHCP support for automatically assign IP address and others

relevant parameters

PPPoE support for ADSL or Cable modem

Setting IP Net Phone parameters by standard web browser (such as IE6.0), phone keypad or standard telnet

Support G.723.1 5.3k/6.3k, G.729, G.711 A-Law, μ -Law audio codec algorithm

Dynamic voice detection Echo cancellation Comfort noise generation

Dynamic voice jitter buffer which minimize effect to the voice caused by the audio delay and jitter and as a result the quality of voice is high

Settings by HTTP web browser (IE6.0)

Advanced settings by Telnet

Voice prompt

Upgrade by TFTP Application Network environment: 10Base-T/100Base-T

Body material / Color: Polyester plastic / RAL2003

Handset material / color : Polyester plastic / Black

Handset cord: stainless steel : 100kg resistance

Loudspeaker/microphone: vandal resistant /5W

Mounting: on wall

Termination: Inside screw connections

Dimensions: : 201 X 320 X 113 mm

Weight: 2,3 kg

IP-rating: IP66

Max. / min. amb. Temp: -40 °C / + 60°C

Available Versions:

TLA402E2FTIP : hands free + Integrated beacon

TLA402 E2FTIPCA8: Support 230VAC



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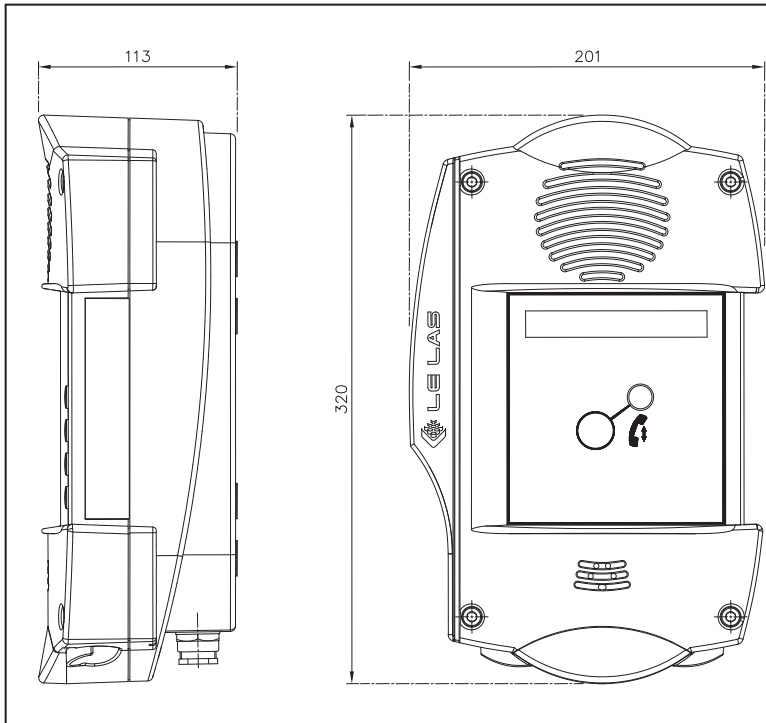
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Web-site:www.lelas.fr

All screws are stainless-steel only



Body material / Color:.....Polyester plastic / RAL2003
Loudspeaker/microphone:vandal resistant
Mounting:on wall
Termination:Inside screw connections
Dimensions: 201 X 320 X 113 mm
Weight:2,0 kg
IP-rating:.....IP66
Max. / min. amb. Temp:.....-40 °C / + 60°C
Maintenance:

all circuits and control devices are fixed on the easy removable front plate for a very quick substitution of equipment in field

Available Versions:

TLS402E2C1F : with integrated flashing beacon

TLS402E2C2: with 2 call buttons

TLS402E2C9FG : with integrated flashing beacon and keypad

Installation, Operation and Maintenance Procedures

- Open the pivoting front panel removing the three screws.
 - Pass the cables through the cableglands being sure that the cable fit with the rubber gasket
 - Connect the telephone wires at the screw terminals as indicated in the operator's book
 - Make a functional test calling another extension and asking to be re-called
 - Adjust the volume of the bell (see operator's book)
 - Adjust the sensitivity of the microphone (see operator's book)
 - Close the front panel paying attention to the position of the gaskets
 - This equipment is supplied with a 2 year warranty against defective workmanship
- TELEPHONES LE LAS reserves the right to alter specifications without notice.



Weather proof IP66 telephone
for wall mounting, indoor or outdoor, for the
locale industrial and noisy
TLS 402E 2

Electrical Characteristics:

| | |
|-------------------------|--------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 40mA |
| Ringing voltage: | 35 – 80 Va |
| Dialling: | DTMF / decimal |
| Flashing/earth: | adjustable |
| Electronic Bell: | 90dB at 1 m. |
| Visual calling signal : | Non |
| LCD: | Non |
| Handset: | Non |
| Noise cancelling: | noise cancelling circuit |
| Hook: | magnetic |
| Conversation Mode: | By handset |

Others:

CCITT Q23



CB TYPE FIRE TELEPHONE WEATHER PROOF IP66 TLC402E*A

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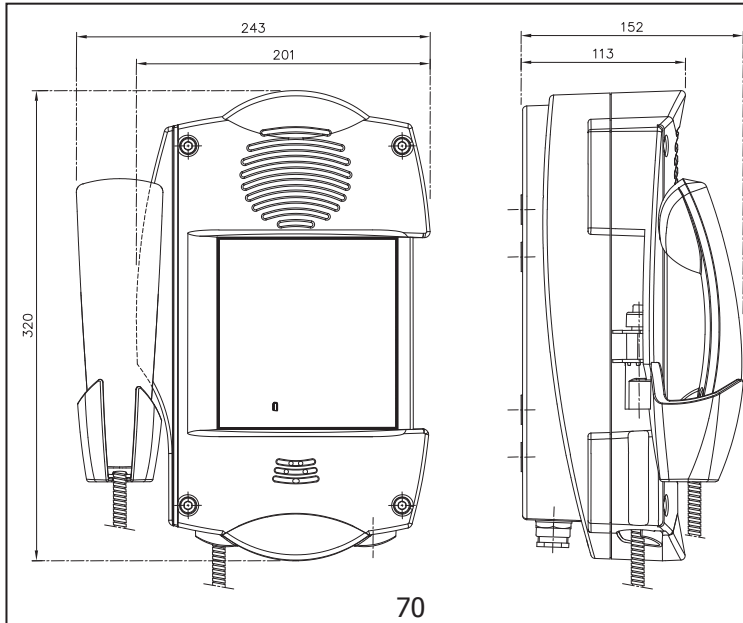
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Web-site:www.lelas.fr

All screws are stainless-steel only



Weather proof IP66 telephone
for wall mounting, indoor or outdoor, for the locale
industrial and noisy
P/N TLC402E*A

Electrical Characteristics:

| | |
|-------------------------|--------------------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 40mA |
| Ringling voltage: | 35 –80 Va |
| Dialling: | Hang up by DTMF / decimal adjustable |
| Flashing/earth: | adjustable |
| Electronic Bell: | 90dB at 1 m. |
| Visual calling signal : | On require |
| Noise cancelling: | noise cancelling |
| circuit | |
| Hook: | magnetic |
| Conversation Mode: | By handset |

Others:

CCITT Q23

(*) TLC402E1A : hook off and call pre-program n° by PABX

TLC402E2A: hook off and call pre-program n° by telephone

Body material / Color:.....Polyester plastic / RAL2003(*)
Handset material / color :Polyester plastic / Black
Handset cord:.....stainless steel (INOX) 100kg resistance
Loudspeaker/microphone:vandal resistant
Mounting:.....on wall
Termination:.....Inside screw connections
Dimensions: : 201 X 320 X 113 mm
Weight:.....2,3 kg
IP-rating:.....IP66
Max. / min. amb. Temp:.....-40 °C / + 60°C
Maintenance:

all circuits and control devices are fixed on the easy removable front plate for a very quick substitution of equipment in field

(*)Option Color : Red , black or Grey



Installation, Operation and Maintenance Procedures

- Open the pivoting front panel removing the three screws.
- Pass the cables through the cableglands being sure that the cable fit with the rubber gasket
- Connect the telephone wires at the screw terminals as indicated in the operator's book
- Make a functional test calling another extension and asking to be re-called
- Adjust the volume of the bell (see operator's book)
- Adjust the sensitivity of the microphone (see operator's book)
- Close the front panel paying attention to the position of the gaskets
- This equipment is supplied with a 2 year warranty against defective workmanship



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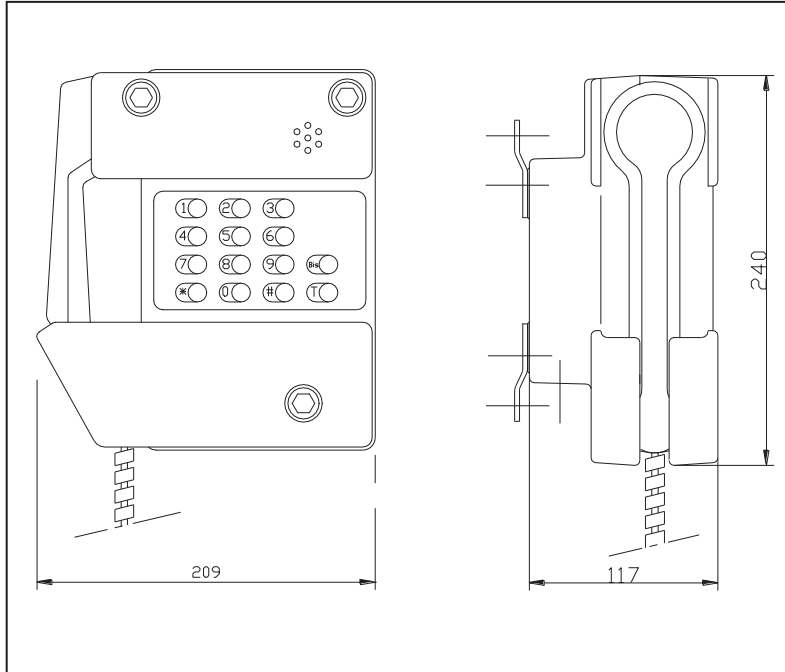
E-mail: lelas@lelas.fr

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Web-site:www.lelas.fr

Weather-proof IP66 ACB telephone
for wall mounting, aluminum light-alloy body
P/N TLA346E15A

All screws are stainless-steel only



Electrical Characteristics:

| | |
|------------------------|---------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 30mA |
| Ringing voltage: | 35 – 90 Vac |
| Dialing: | DTMF/pulse |
| Flashing/earth: | adjustable |
| Electronic Bell: | 90dB at 1 m. |
| Hook: | magnetic type |
| Other characteristics: | CCITT Q23 |

Functions:

| | |
|-------------|-------------------------|
| Keypad: | 12 keys (*, #, 0,1...9) |
| BIS button: | Last number redial |
| R button: | Flash/Earth |

Additional functions (options)

It is possible to add the second receiver such as the Loudspeaker or anti-noisy head set

Body material / Color:Aluminum Light-alloy / RAL2003
Handset material / color:Aluminum Light-alloy / Black
Handset cord:stainless steel 200kg resistance
Mounting:on wall
Termination:Inside screw connections
Dimensions:210 X 240 X 117 mm
Weight:3,6 kg
IP-rating:66
Max. / min. amb. Tem.....-20 °C / + 50°C
Cables inlets:(2 cable glands for cable ϕ 5 – 8 mm)
Opening:3 screws on front part

Maintenance:

all circuits and control devices are fixed on the easy removable front plate for a very quick substitution of equipment in field

Installation, Operation and Maintenance Procedures

- Open the pivoting front panel removing the three screws.
- Pass the cables through the cableglands being sure that the cable fit with the rubber gasket
- Connect the telephone wires at the screw terminals as indicated in the operator's book
- Make a functional test calling another extension and asking to be re-called
- Adjust the volume of the bell (see operator's book)
- Adjust the sensitivity of the microphone (see operator's book)
- Close the front panel paying attention to the position of the gaskets

This equipment is supplied with a 2 year warranty against defective workmanship



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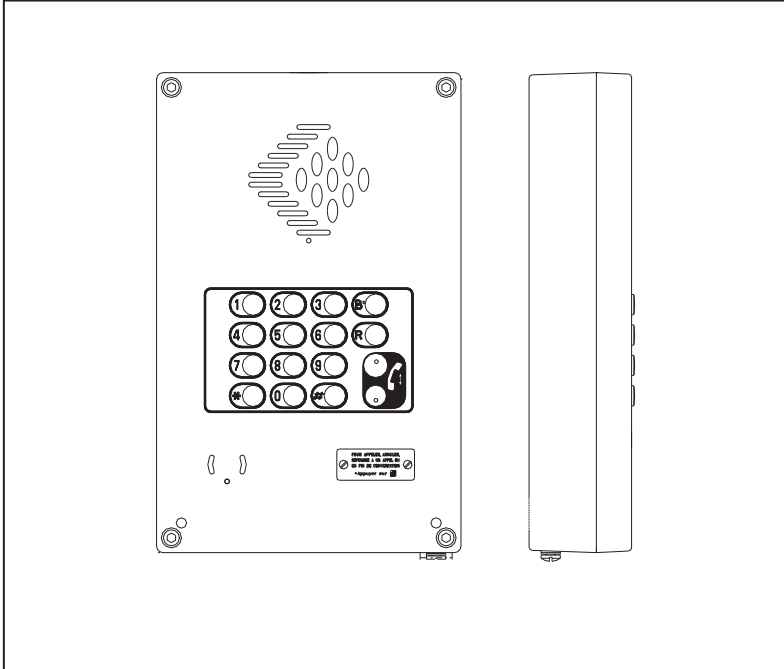
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E-mail: lelas@lelas.fr

Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel only



Body material / Color:.....Aluminum Light-alloy / RAL2003
 Loudspeaker/microphone:vandal resistant
 Mounting:on wall
 Termination:Inside screw connections
 Dimensions:300 X 190 X 65 mm
 Weight:3,6 kg
 IP-rating:66
 Max. / min. amb. Temp:-10 °C / + 50°C
 Cables inlets:(2 cable glands for cable ϕ 5 – 8 mm)
 Opening:4 screws and pivoting front door for easy access

Available Versions:

TLS376E1CL : Hands free type with keypad
 TLS376E1S: Hands free type with 1 call button + 8 n° memories
 TLS376E1C4: Hands free type with 4 call button
 TLS376E1C8: Hands free type with 8 call button

Installation, Operation and Maintenance Procedures

- Open the pivoting front panel removing the four screws.
- Pass the cables through the cable glands being sure that the cable fit with the rubber gasket
- Connect the telephone wires at the screw terminals as indicated in the operator's book
- Make a functional test calling another extension and asking to be re-called
- Adjust the volume of the bell (see operator's book)
- Adjust the sensitivity of the microphone (see operator's book)
- Close the front panel paying attention to the position of the gaskets

Weather-proof IP66 ACB telephone
 for wall mounting, aluminium light-alloy body
 HANDS-FREE FULL-DUPLEX conversation
P/N TLS376E1

Electrical Characteristics:

| | |
|------------------------|-------------------------------|
| Direct current supply: | 12 to 60 Vdc |
| Consumption: | < 40mA |
| Ringing voltage: | 35 – 90 Vac |
| Dialing: | DTMF/pulse |
| Flashing/earth: | adjustable |
| Electronic Bell: | 85 - 90dB at 1 m. |
| Autoreply: | programmable on 1 to 90 rings |
| Hook: | automatic hook |
| Microphone circuit: | anti-noise |
| Other characteristics: | CCITT Q23 |

Operating functions:

Keypad: 0 .. 9, *, #, Last nr. redial, flash
 Memories: 9 direct memories
 Conversation: Hands-Free Full-Duplex mode
 Programming: 100% from remote via t1ph line
 Telemaintenance: software for Windows © available



TELEPHONES LE LAS (FRANCE Head Office)

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Explosion-proof loudspeaker for industrial applications, realized in a cast-iron IP66 body with re-entrant cone
P/N RED-225A

AVAILABLE VERSIONS:

RED225A2C1A

Standard version with impedance 16 ohm – 15Watt RMS, ATEX EExd IIC + H2 T6 GD

RED225A2C1D

Suitable for any PA (Public Address) and Alarm system based on a 100V amplifying line.

Transformer for 100 Volt line is equipped with a few power taps, for adjusting the output power at the local area.

(Primary nominal tapings):

- a) 15,0W RMS
- b) 12,5W RMS
- c) 7,5 W RMS
- d) 5,0 W RMS

RED225A2C1E

ATEX EExd IIB T6 GD With built-in amplifier 15W RMS – 48 Vdc

Input signal: 0 dB / 600ohm
Input impedance: > 10Kohm
Volume: adjustable by built-in trimmer
Power-supply: 48 Vdc (0,5A)

This version can be used alone or in parallel to other similar amplified loudspeakers (contact our Technical Department for details).

RED225A2C1D

ATEX EExd IIB T6 GD With 100V line, 16 ohm – 15Watt RMS

Material / Color..... aluminum light alloy RAL2003
Dimensions: Ø 25cm x 35 cm
Weight..... 8,0 kg
Mounting..... Bracket
Termination..... e-chamber, screw terminals
IP-rating..... 66
Max. / min. amb. temp 60 °C / -40 °C
Impedance 16 ohms
Rated / max. power 15 W / 20 W
SPL 1W/1m..... 95 dB
SPL rated power 105 dB
Effective freq. range..... 370 – 7000 Hz
Dispersion (-6dB) 1kHz / 4kHz..... 110° / 30°

Installation, Operation and Maintenance Procedures

When mounting the loudspeaker please ensure that it is re-assembled in the same manner in which it was received.

- To change the position of the loudspeaker please adjust the bracket (by loosening / tightening the screws) as required.
- For optimum performance, always use the correct voltage / power and operate within the frequency limits as stated.
- Use only certified/specified cable glands and blanking plugs.
- The loudspeaker should be checked on a regular basis to avoid any build up of debris.
- Fasten lid with a torque of 2 - 3 Nm.
- This loudspeaker is supplied with a 2 year warranty against defective workmanship.

TELEPHONES LE LAS (FRANCE Head Office)

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Weather-proof loudspeaker for industrial applications, realized in a cast-iron IP66 body with re-entrant cone
P/N RED-364

AVAILABLE VERSIONS:

RED364E1C1A

Standard version with impedance 16 ohm – 15Watt RMS

RED364E1C1D

Suitable for any PA (Public Address) and Alarm system based on a 100V amplifying line.

Transformer for 100 Volt line is equipped with a few power taps, for adjusting the output power at the local area.

(Primary nominal tapings:

- a) 15,0W RMS
- b) 12,5W RMS
- c) 7,5 W RMS
- d) 5,0 W RMS

RED364E1CE

With built-in amplifier 15W RMS – 48 Vdc
Input signal: 0 dB / 600ohm
Input impedance: > 10Kohm
Volume: adjustable by built-in trimmer
Power-supply: 48 Vdc (0,5A)

This version can be used alone or in parallel to other similar amplified loudspeakers (contact our Technical Department for details).

| | |
|------------------------------------|------------------------------|
| Material / Color..... | aluminum light alloy RAL2003 |
| Dimensions: | Ø 25cm x 35 cm |
| Weight..... | 4,0 kg |
| Mounting..... | Bracket |
| Termination..... | e-chamber, screw terminals |
| IP-rating..... | 66 |
| Max. / min. amb. temp | 60 °C / -40 °C |
| Impedance | 16 ohms |
| Rated / max. power | 15 W / 20 W |
| SPL 1W/1m..... | 103 dB |
| SPL rated power | 115 dB |
| Effective freq. range..... | 370 – 7000 Hz |
| Dispersion (-6dB) 1kHz / 4kHz..... | 110° / 30° |

Installation, Operation and Maintenance Procedures

- When mounting the loudspeaker please ensure that it is re-assembled in the same manner in which it was received.
- To change the position of the loudspeaker please adjust the bracket (by loosening / tightening the screws) as required.
- For optimum performance, always use the correct voltage / power and operate within the frequency limits as stated.
- Use only certified/specified cable glands and blanking plugs.
- The loudspeaker should be checked on a regular basis to avoid any build up of debris.
- Fasten lid with a torque of 2 - 3 Nm.
- This loudspeaker is supplied with a 2 year warranty against defective workmanship.



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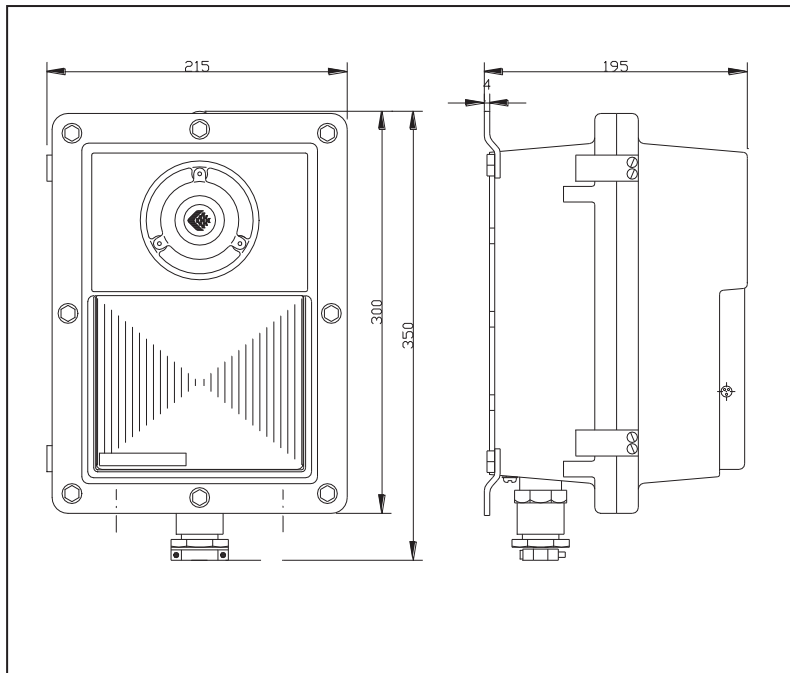
E-mail: lelas@lelas.fr

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Web-site:www.lelas.fr

Explosion-proof EEx d IIB T6 – ATEX II2GD
for wall mounting, aluminium light-alloy body
P/N SGV –214-A6CA

All screws are stainless-steel only



Electrical Characteristics:

power-supply: 48-24 Vdc or 230 Vac
consumption: 15W – 15VA
Flashing unit: Xenon lamp 15 Joules
Acoustic unit: 110 dB at 1 m.
Telephone interface: electronic relay circuit
Telephone ringing voltage:30 to 100 Vac – 25-50 Hz
Impedance on the tlph line: > 7 K ohms
Output Level: adjustable by internal trimmer
Output tone: low/high, continuous/blinking
Special functions: working also during pauses between rings

Mechanical characteristics:

Explosion-proof degree: EEx d IIB T6
IP-rating: 66
Painting: epoxy for outdoor using

Material / Color:.....Aluminum Light-alloy / RAL2003
Mounting:on wall
Termination:Inside screw connections
Dimensions:215 X 350 X 195 mm
Weight:9,0 kg
IP-rating:66
EEx protection:ATEX II2GD (EEx d IIB T6)
Max. / min. amb. Temp:-40 °C / + 60°C
Cables inlets:nr. 3 threaded holes
(2 cableglands for cable ϕ 5 – 8 mm + 1 plug)
Opening:8 screws and pivoting front door for easy access

Available Versions:

SGV214A6CA/CC :Power supply 230VAC or 24-48

SGV214A6CA8 : Power Supply230VAC

Installation, Operation and Maintenance Procedures

- This is a EEx equipment: it should be installed by skilled personnel only (danger of explosion)
- Open the pivoting front panel removing the eight screws
- Pass the cables through the cableglands being sure that the cable fit with the rubber gasket.
- Connect the telephone wires and the power-supply 220 Vac at the screw terminals
- Adjust the output trimmer and select the proper tone combination (see owner's manual)
- If you want to supply it at 24/48 Vdc follows the setting instruction on the owner's manual
- Close the front panel in conformity to the safety rules for classified areas
- For optimum performance, always use the correct voltage 48 Vdc/24Vdc or 220 Vac +/- 10%



This equipment is supplied with a 2 year warranty against defective workmanship

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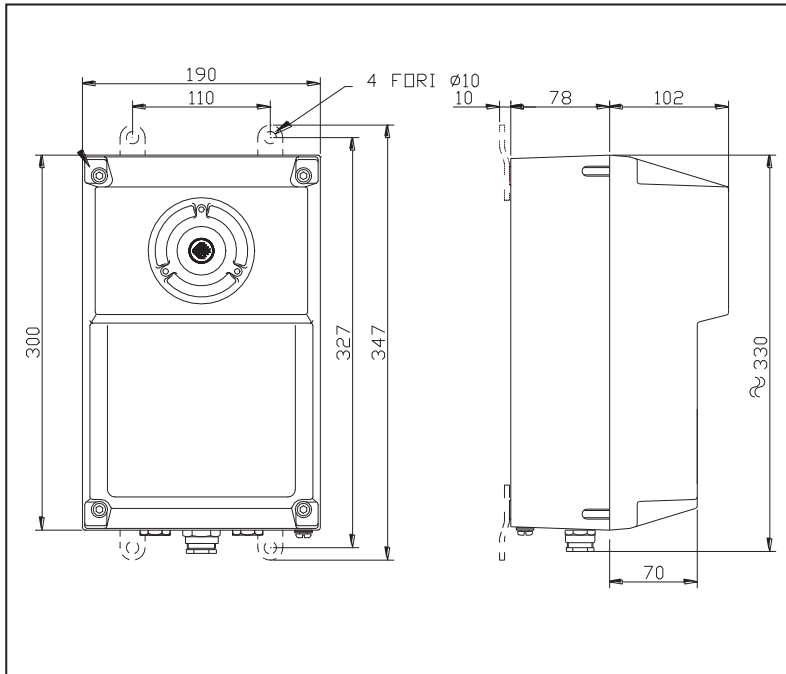
Tel:0033 1 48766262

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Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel only



Material / Color:Aluminum Light-alloy / RAL2003
 Mounting:on wall
 Termination:Inside screw connections
 Dimensions:190 X 300 X 182 mm
 Weight:7,2 kg
 IP-rating:.....66
 Max. / min. Work Temp:-20 °C / + 60°C
 Cables inlets:nr. 3 threaded holes
 (2 cableglands for cable ϕ 5 – 8 mm + 1 plug)
 Opening:4 screws and pivoting front door for easy access

Available Versions:

SGV344E6CA8: Flash 15J+ 4 Tones Beacon, 230VCA
 SGV344E6CA/CC: Flash 15J+ 4 Tones Beacon, 230VCA/48-24 Vdc
 SGV344E7R/X1: Flash 5J+ 15W 16OHM motor, 230VCA
 SGV344E7RCA8: Flash 15J+ 4 Tones Beacon 126dB, 230VCA

Option:

Different flash color as demand(Green, blue, Red...)

Installation, Operation and Maintenance Procedures

- This is a IP66 equipment: it should be installed by skilled personnel only
- Open the pivoting front panel removing the 4 screws
- Pass the cables through the cableglands being sure that the cable fit with the rubber gasket.
- Connect the telephone wires and the power-supply 220 Vac at the screw terminals
- Adjust the output trimmer and select the proper tone combination (see owner's manual)
- If you want to supply it at 24/48 Vdc follows the setting instruction on the owner's manual
- Close the front panel and fix the 4 screws, checking the presence and state of the gasket
- For optimum performance, always use the correct voltage 48

Weather-proof IP667
 for wall mounting, aluminium light-alloy body
P/N SGV -344E

Electrical Characteristics:

power-supply: 48-24 Vdc or 230 Vac
 consumption: 15W – 15VA
 Flashing unit: Xenon lamp 15 Joules
 Acoustic unit: ≥ 110 dB at 1 m.
 Telephone interface: electronic relay circuit
 Telephone ringing voltage:30 to 100 Vac – 25-50 Hz
 Impedance on the t1ph line: > 7 Kohms
 Output Level: adjustable by internal trimmer
 Output tone: low/high, continuose/blinking
 Special functions: working also during pauses between rings

Mechanical characteristics:

IP-rating: 667 as demand
 Painting: epoxy for outdoor using



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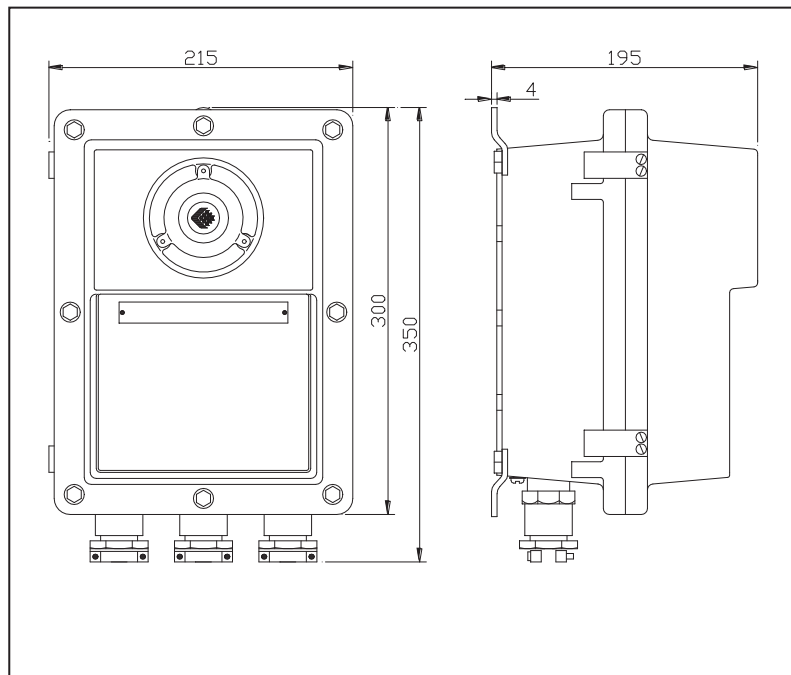
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Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel only



Explosion-proof EEx d IIB T6 (ATEX II2GD)
for wall mounting, aluminium light-alloy body
P/N KLM -214-A1A6CA/CC

Electrical Characteristics:

power-supply: 48-24 Vdc or 230 Vac
consumption: 15W – 15VA
Acoustic unit: 110 dB at 1 m.
Telephone interface: electronic relay circuit
Telephone ringing voltage: 30 to 100 Vac – 25-50 Hz
Impedance on the tlp line: > 7 K ohms
Output Level: adjustable by internal trimmer
Output tone: low/high, continuouse/blinking
Special functions: working also during pauses between rings

Mechanical characteristics:

Explosion-proof degree: EEx d IIB T6
IP-rating: 55
Or 65 (if silicon grease is used)
Painting: epoxy for outdoor using

Material / Color:.....Aluminum Light-alloy / RAL2003
Mounting:on wall
Termination:Inside screw connections
Dimensions:215 X 350 X 195 mm
Weight:9,0 kg
IP-rating:55 to 65 (following the mounting instructions)
EEx protection:ATEX II 2 GD (EEx d IIB T6)
Max. / min. amb. Temp.....-40 °C / + 60°C
Cables inlets:nr. 3 threaded holes
(2 cableglands for cable ϕ 5 – 8 mm + 1 plug)
Opening:8 screws and pivoting front door for easy access



Installation, Operation and Maintenance Procedures

- This is a EEx equipment: it should be installed by skilled personnel only (danger of explosion)
- Open the pivoting front panel removing the eight screws
- Pass the cables through the cableglands being sure that the cable fit with the rubber gasket.
- Connect the telephone wires and the power-supply 230 Vac at the screw terminals
- Adjust the output trimmer and select the proper tone combination (see owner's manual)
- If you want to supply it at 24/48 Vdc follows the setting instruction on the owner's manual
- Close the front panel in conformity to the safety rules for classified areas
- For optimum performance, always use the correct voltage 48 Vdc/24Vdc or 230 Vac +/- 10%

This equipment is supplied with a 2 year warranty against defective workmanship



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TELEPHONES LE LAS (FRANCE Head Office)

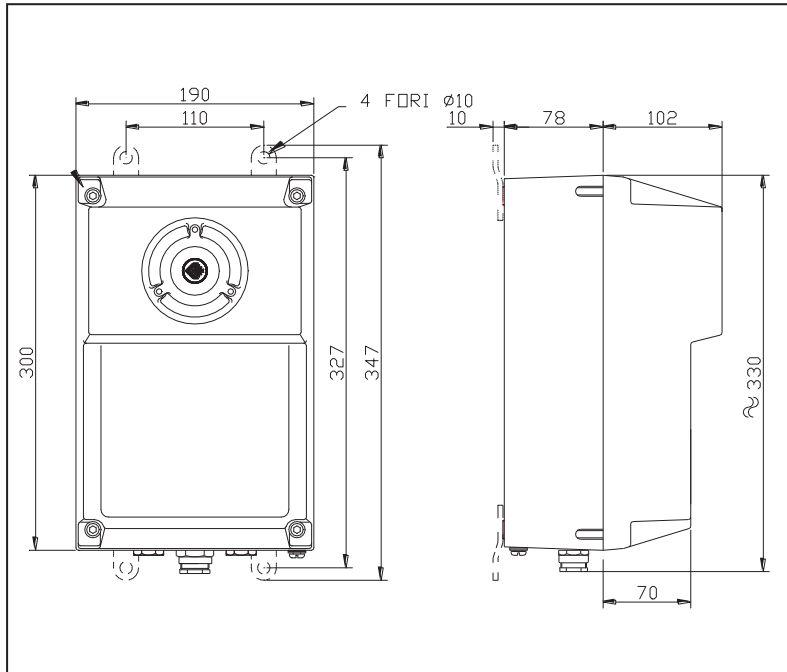
Tel:0033 1 48766262

E-mail: lelas@lelas.fr

Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel only



Weather-proof IP66 wall mounting Acoustic sounder, with aluminium light-alloy body
P/N KLM344E

Electrical Characteristics:

power-supply: 48-24 Vdc or 230 Vac
consumption: 15W – 15VA
Acoustic unit: 110 / 126 dB at 1 m.
Telephone interface: electronic relay circuit
Telephone ringing voltage: 30 to 100 Vac – 25-50 Hz
Impedance on the tlpH line: > 7 K Ohms
Output Level: adjustable by internal trimmer
Output tone: modulated
Special functions: working also during pauses between rings

Mechanical characteristics:

IP-rating: 66
Painting: epoxy for outdoor using

Material / Color:.....Aluminum Light-alloy / RAL2003
Mounting:on wall
Termination:Inside screw connections
Dimensions:300 x 190 x 181 mm
Weight:5,0 kg
IP-rating:66
Max. / min. amb. Temp:-40 °C / + 60°C
Cables inlets:nr. 3 holes
(2 cableglands for cable ϕ 5 – 8 mm + 1 plug)
Opening:4 screws and pivoting front door for easy access

Available Versions:

KLM344E6CA/CC : 90 / 110dB with Telephone relay
KLM344E7CA/CC : 100 / 126dB with Telephone relay

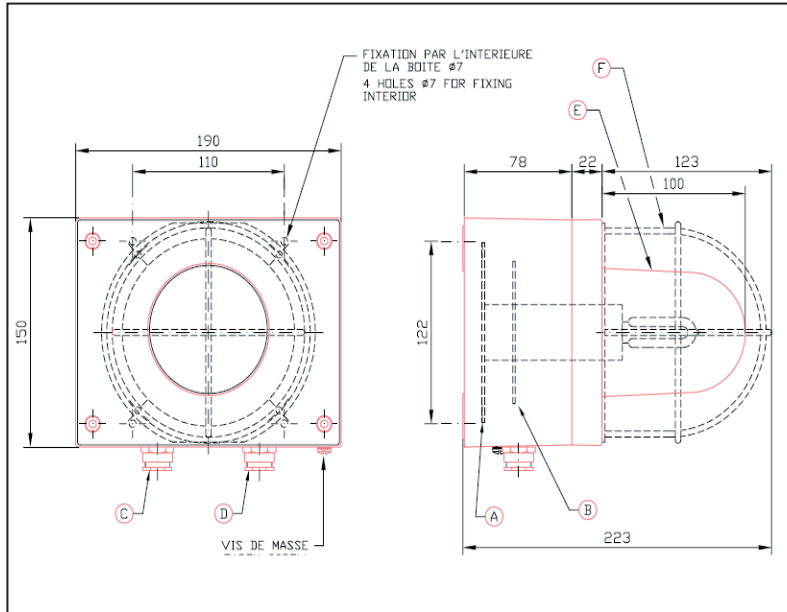


Installation, Operation and Maintenance Procedures

- This is a weather-proof electrical equipment: it should be installed by skilled personnel only
 - Open the pivoting front panel removing the four screws
 - Pass the cables through the cableglands being sure that the cable fit with the rubber gasket.
 - Connect the telephone wires and the power-supply 220 Vac at the screw terminals
 - Adjust the output trimmer and select the proper tone combination (see owner's manual)
 - If you want to supply it at 24/48 Vdc follows the setting instruction on the owner's manual
 - Close the front panel being sure of the gasket integrity and of its position
 - For optimum performance, always use the correct voltage 48 Vdc/24Vdc or 220 Vac +/- 10%
- This equipment is supplied with a 2 year warranty against defective workmanship



The whole is steel screws INOX



Optical warning Beacon suitable for repetition of telephone calls, running watertight with light alloy body

P/N FEF341E4CA8

Operation with power supplying cc/ca:

Power : 48-24 Vcc, Option 230 Vca
Power devices

Operation with phone commande line

24-48 Vcc, 230 Vac
Power:Light output: 15 Joule
Telephone Interface : incorporated electronics
Tension of phone calling :
from 30 to 100 Vca 25-50 Hz

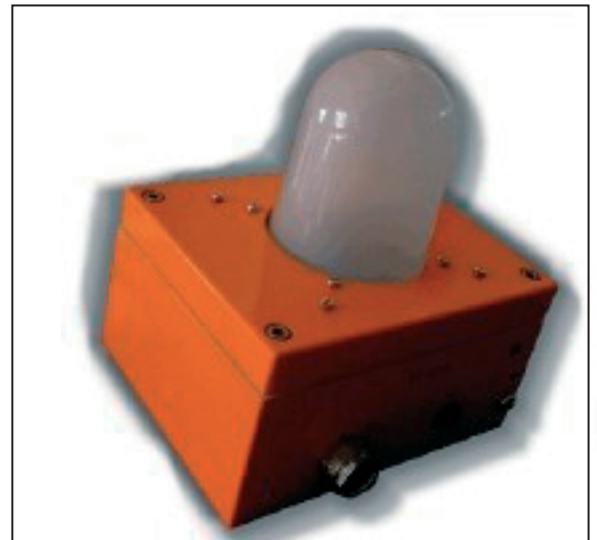
Mechanical characteristic

Degree of tightness: IP66
Painting: For use outside

Material / Color:..... Aluminum alloy / RAL2003
Mounting.....wall Mounted
Ligament..... removable screw terminals
Dimension:.....95 x 95 x 88 mm
Weight.....0,4 kg
IP-rating:.....66
Max. / min. amb. Temp:.....-40 °C / + 60°C

Available Versions:

FEF341E3D:110V / 60Hz



Procedures for installation, use and maintenance

- It is an electric running machine for use outside for entry into service shall be performed by qualified personnel in accordance with the laws and rules in force
- Open the front by unscrewing the 2 screws 3 mm Allen
- Pass the power cables and command and control through the appropriate cable glands occurring in the adapters that are rubber with a diameter appropriate to ensure the maintenance (replace if necessary)
- Connect the phone line of'alimentazione 220 Vdc Vac/24Vcc/48, setting the jumper (see manual)
- Adjust volume and tone (see manual)
- Close the front and fix the screws, making sure the proper positioning of the seal
-



This apparatus is covered by a warranty against defects in factory valid for 24 months from delivery

TELEPHONES LE LAS (FRANCE Head Office)

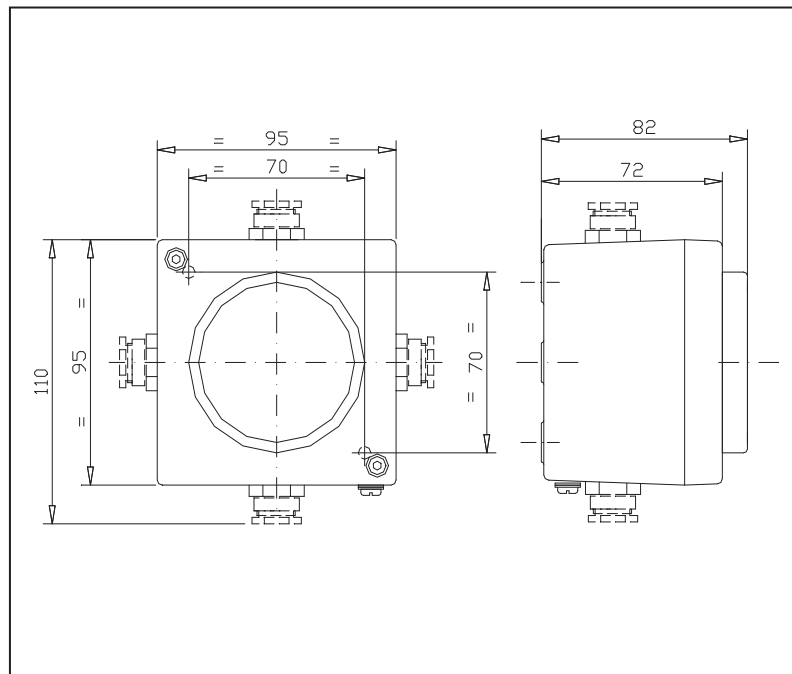
Tel:0033 1 48766262

E-mail: lelas@lelas.fr

Fax:0033 1 48768304

Web-site:www.lelas.fr

The whole is steel screws



Optical signaller 90°, suitable for telephone calls repeater, with aluminium light-alloy body, Weather-proof IP66
P/N FEF349E2M*U

Operating with external power cc/ca:

Power supply: 48-24 Vcc, or 230 Vca
Efficacy: up to 300 CL
Flashing rhythm: adjustable

Operating on telephone line, no additional power:

Power supply: from the telephone line
Efficacy: up to 300 CL
Flashing rhythm: adjustable
Telephone interface: built-in electronic
Telephone voltage: 30 to 100 Vac 25-50 Hz
Telephone circuit impedance: > 10 MW

Material / Colour:.....Aluminium Light-Ally RAL2003
Mounting:on wall
Connecting:screws terminals
Dimensions:95 x 95 x 82 mm
Weight:0,4 kg
IP-rating:66
Max. / min. amb. Temp:-40 °C / + 60°C

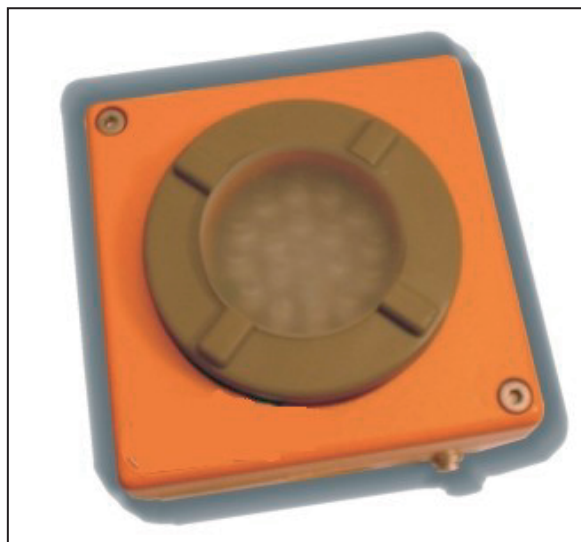
Available Versions:

(*) = B / J / R

FEF349E2MBU:Color White with 1 cable gland ϕ 5 – 8 mm

FEF 349E2MJU:Color Yellow with 1 cable gland ϕ 5 – 8 mm

FEF 349 E2MRU:.....Color Red with 1 cable gland ϕ 5 – 8 mm



Installation, Operation and Maintenance Procedures

- This is a weather-proof electrical equipment: it should be installed by skilled personnel only
- Open the pivoting front panel removing the three screws
- Pass the cables through the cable glands being sure that the cable fit with the rubber gasket.
- Connect the telephone wires and/or the power-supply 230 Vac at the screw terminals
- Adjust the output trimmer and select the proper tone combination (see owner's manual)
- If you want to supply it at 24/48 Vdc follows the setting instruction on the owner's manual
- Close the front panel being sure of the gasket integrity and of its position
- For optimum performance, always use the correct voltage 48 Vdc/24Vdc or 230 Vac +/- 10%

This equipment is supplied with a 2 year warranty against defective workmanship



Industrial acoustic booth for telephones, intercoms and signalizations

CBA 234

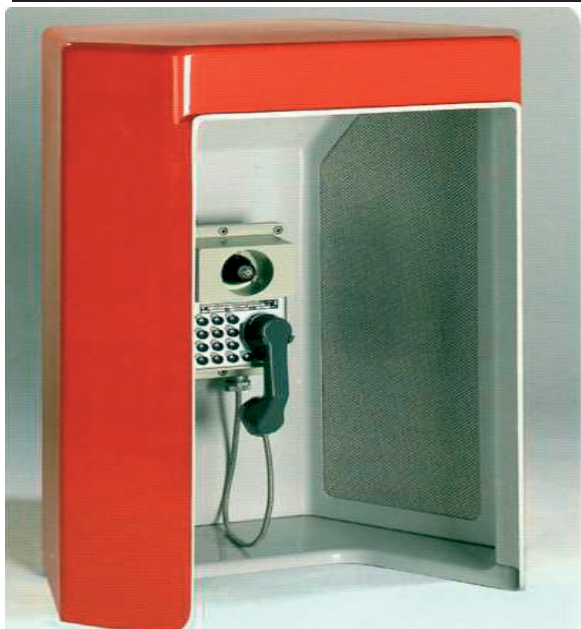
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Tel:0033 1 48766262

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Fax:0033 1 48768304

Web-site:www.lelas.fr



**Industrial acoustic booths,
For telephones, intercoms and signalizations**

Characteristics:

Telephones enclosures of different dimensions

Particularly intended for very noisy environments

Double wall of fiberglass reinforced polyester

Strong, light, corrosion proof

Inside of the side panels are made of expanded aluminum sheets, lined with special acoustic material absorbing the noise

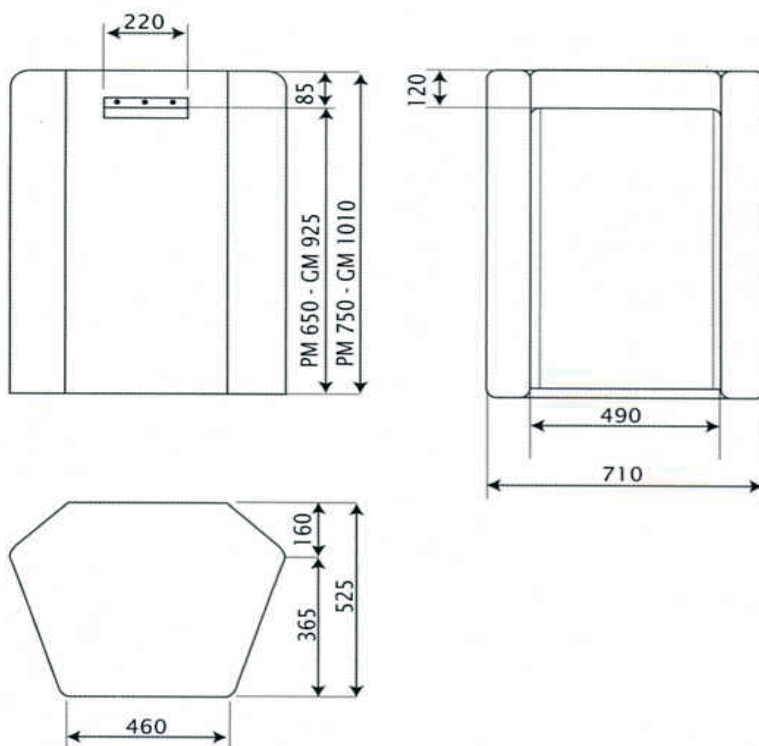
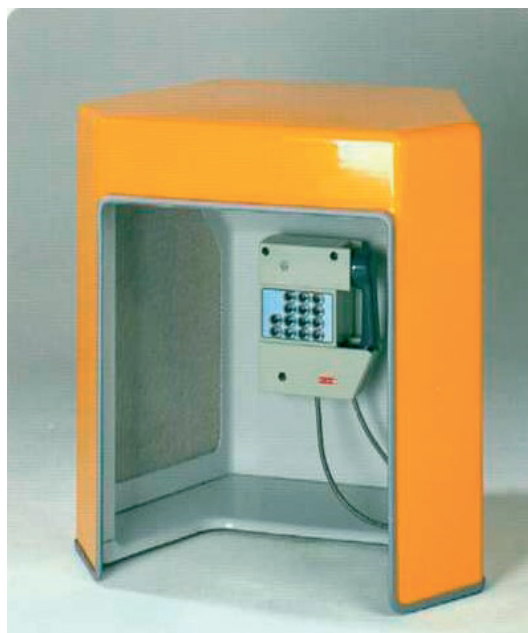
Level of ambient noise reduction: 20 dB

Easy wall fixing system

Writing shelf

Colour inside: grey

Colour outside: large choice of colours



TELEPHONES LE LAS (FRANCE Head Office)

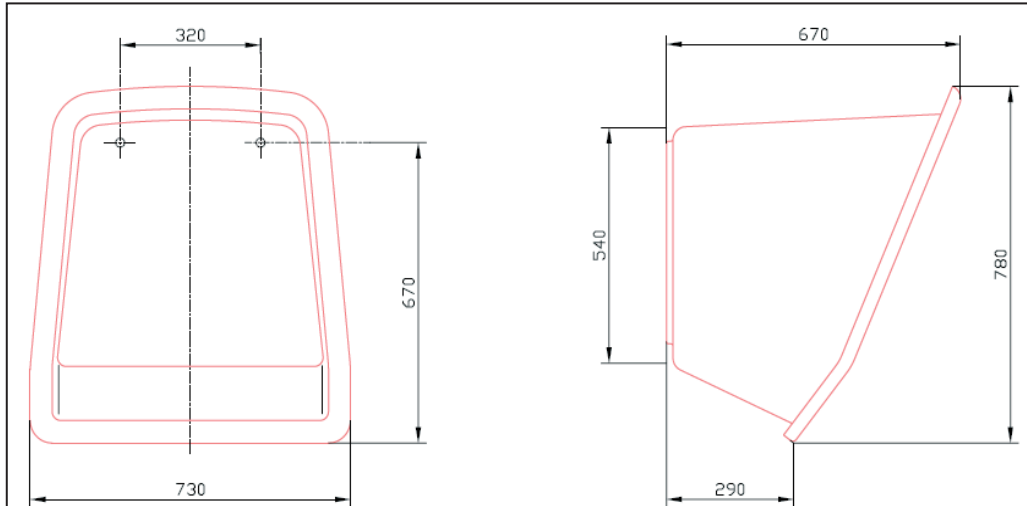
Tel:0033 1 48766262

E-mail: lelas@lelas.fr

Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel only



Industrial Acoustic Booth
made of glass fibre
reinforced polyester.

specially designed for
heavy industrial plants

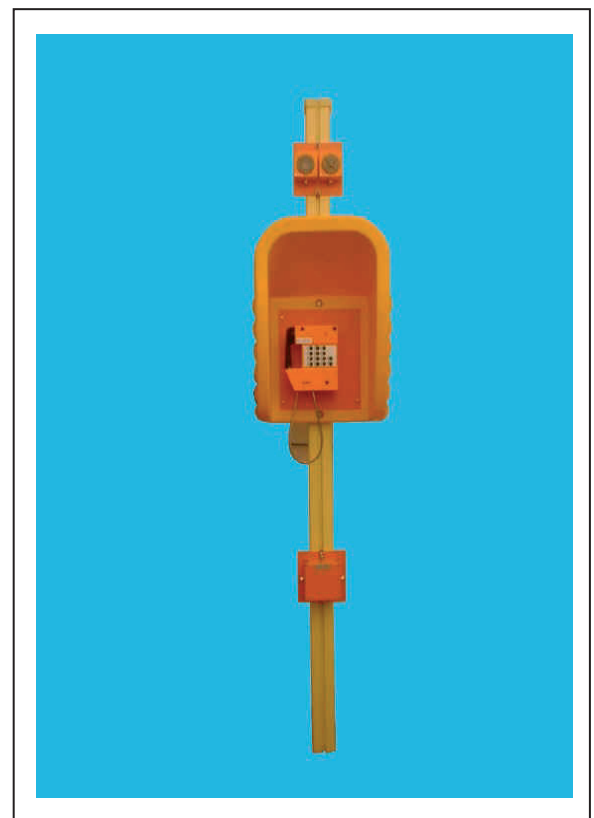
P/N CBA255SV1

Main Characteristics:

- Generous size, suitable for industrial telephones
- Good level of noise reduction (-10dB)
- Made of glass fibre reinforced polyester, different painting colour as demand .(White, Beige, Gary, Yellow, Red, Orange, Blue)
- Easy wall fixing system, by two holes on the back and a security holding point on the front down
- Simple, Robust and Reliable
- Suitable to be used with any industrial telephone with max weight 20 kg

Other Characteristics:

| | |
|--------------------|--|
| Noise protection: | non hygroscopic rock wool 100 kg/m ³ |
| Color: | not painted (painted on demand) |
| Reinforced plate: | for our TLA229 and TLA227 industrial telephones (for other telephones on demand) |
| Internal Lamp: | available on demand (optional) |
| Writing desk base: | available on demand (option) |
| Dimensions (mm): | 780 (h.) x 730 x 670 |
| Weight: | 20 kg |
| Fixing: | on the wall |



Installation Procedure:

- The CBA255SV1 is suitable for industrial noisy environments
- To obtain the best performances, do not install the box with its front part directly exposed to the noisy equipment (the best is to install the box on a column in such a way that its back part is exposed to the noisy equipment)
- Avoid to install the front part of the box in front of noise-reflecting surfaces (like windows)
- Is suggested to fix the box at the wall before installing the telephone, so that you will better analyze how to fix cables/tubes etc.



The equipment is covered by guarantee against materials/manufacturing defects for a period of 2 years

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TELEPHONES LE LAS (FRANCE Head Office)

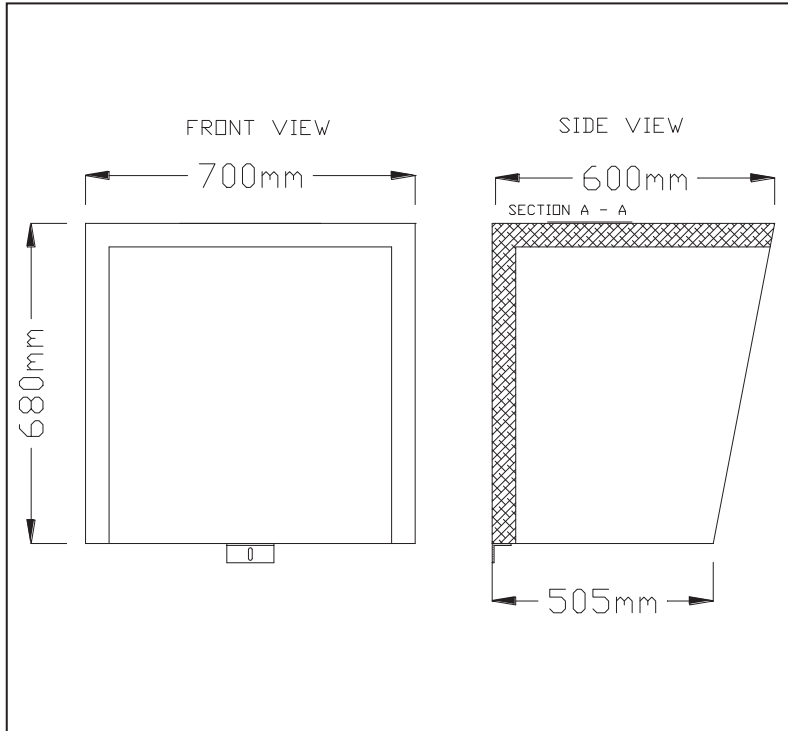
Tel:0033 1 48766262

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Fax:0033 1 48768304

Web-site:www.lelas.fr

All screws are stainless-steel only



Industrial Acoustic Booth made of stainless-steel AISI304 plates*, specially designed for heavy industrial plants
P/N CBA240SV2

Main Characteristics

- Generous size, suitable for industrial telephones
- Good level of noise reduction (-25dB)
- Made of stainless-steel AISI304, normally not painted (orange epoxy painted on demand only)
- Easy wall fixing system, by two holes on the back and a security holding point on the front down
- Simple, Robust and Reliable
- Suitable to be used with any industrial telephone with max weight 20 kg

(*)Option: Metal material for CBA240SV1

Manufacturing material:.....AISI 304 stainless-steel plates
 Inside plates:high-density drilled plates
 Noise protection:.....non hygroscopic rockwool 100 kg/m³
 Color:.....not painted (painted on demand)
 Reinforced plate: for our TLA229 and TLA227 industrial telephones (for other telephones on demand)
 Internal Lamp:.....available on demand (optional)
 Writing desk base:.....available on demand (option)
 Dimensions (mm):.....680 (h.) x 700 x 600
 Weight:30 kg
 Fixing:.....on the wall



Installation procedure:

- The CBA240SV1 is suitable for industrial noisy environments
- To obtain the best performances, do not install the box with its front part directly exposed to the noisy equipment (the best is to install the box on a column in such a way that its back part is exposed to the noisy equipment)
- Avoid to install the front part of the box in front of noise-reflecting surfaces (like windows)
- It is suggested to fix the box at the wall before installing the telephone, so that you will better analyze how to fix cables/tubes etc.

The equipment is covered by guarantee against materials/manufacturing defects for a period of 2 years



EMERGENCY TELEPHONE WATERPROOF IP55, HAND FREE Range MODULOTEL TLS 304/306/308

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Body material :.....Stainless-steel
Loudspeaker/microphone:.....vandal resistant
Mounting:.....embed or wall mounting
Termination:.....Inside screw connections
Weight:.....1,5 kg
IP-rating:IP55 or IP 66 on demand
Max. / min. ambient temperatures:.....-10 °C / + 50°C
Cables inlets:(1 cable gland for cable ϕ 5 – 8 mm)
Opening:4 screws
Maintenance:
all circuits and control devices are fixed on the easy removable front plate for a very quick substitution of equipment in field

Additional functions (options)

- Telephone VOIP (Support to DHCP and PPPoe)
- Telephone GSM
- An additional electronic card is available to perform the remote opening of a door or any other activation (P/N WK026CRG)
- Camera
- Closing by key the telephone

Different mode :

Different models are available. The telephone is composed of different modules assembled together on client's demand.

Modules available: loudspeaker, microphone, camera, display, flash lamp, keypad, 1 button, 2 buttons, empty module. Others on demand.

Emergency waterproof IP55,
hand free telephones of range MODULOTEL

Electrical Characteristics:

| | |
|-------------------------|-------------------------------|
| Current supply: | 24 to 60 Vdc Umax60Vdc |
| Consumption: | < 30mA |
| Sound power of Speaker | up to 1W |
| Ringing current on line | 18mA to 35mA |
| Ringing voltage: | 35 – 90 Vac |
| Dialing: | DTMF/pulse |
| Flashing/earth: | adjustable |
| Electronic Bell: | 85dB at 1 m. |
| Dial tone: | 270 to 540Hz |
| Busy tone: | 300 to 500Hz |
| Auto reply: | programmable on 1 to 90 rings |
| Hook: | hung up automatic |
| Other characteristics: | CCITT Q23 |

Operating functions:

Keypad: from 1 up to 4 auto-dialing buttons
or keypad with memory function

Memory: 1 chain of 8 memorized numbers

Up to 10 numbers in memory on a keypad

Conversation: Hands-Free Full-Duplex mode

Programming:100% from remote via telephone line

- Volume and ring type programmed



TELEPHONES LE LAS (FRANCE Head Office)

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Web-site:www.lelas.fr



This antivandal call terminal can be installed near airports, train stations, taxi stations, information points.

LELAS also has a wide range of EMERGENCY CALL TERMINALS installed along roads and motorways: analogical, IP or GSM telephones with solar panel in option.

Flashing light at top lights the placement of call terminal at night and shows the call.

The light under the telephone lights the keypad.

The hands free telephone is MODULOTEL range. It can be analogical, IP or GSM. Different models are possible depending on client's demand: keypad, 1 to 8 button, flash lamps, camera, display and so on.

Technical Characteristics:

Power supply: 230 VAC 50 HZ

(permanent or at night only)

Telephone power supply: 24 – 60 VDC

IP rating (weatherproof protection) : IP 55

Antivantal protection: IK 8

Material: synthetic rubber

Option: "antigraffiti" cover

Telephone connection: to public or private telephone net

Conversation: Hands-Free Full-Duplex mode

Lightings: to public or city electricity net with power supply of 230 VAC

Power of neon lamp above the telephone: 15 W

Flash lamp at the top: 15 Joules



Soil fixation from aluminium

Colour : grey

Another colour on demand

Option: closing by key Modulotel telephone

Direct calls by pressing 1 button (memories in Modulotel telephone)

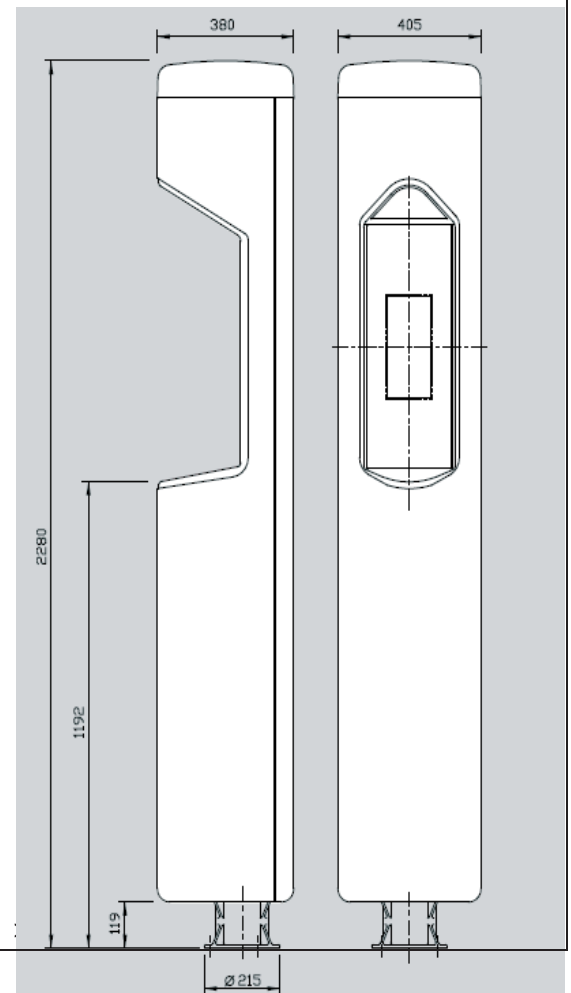
Chain of numbers by pressing 1 button (successive calling to up to 8 numbers if the first number is busy)

Telephone connection: analogic, VOIP or GSM

Option: solar panel for power supply

Option: distant control

LELAS has a wide range of solutions for EMERGENCY call terminals. Please, contact our managers to have more information.



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VEGA
Led clock / hour minutes
Numbers dimension:10, 5 cm
Reference: HDG 149P



AGENA
Led clock / hour minutes
Numbers dimension: 6 cm
Reference: HDG 155P



GALAXY
Led clock / hour minutes seconds
Numbers dimensions: 6 cm
Date dimension: 6 cm
Reference: HCA 155P

Characteristics:

Choice of three colours of LED: red, yellow, green

Interface to time signal networks
Automatic summer/winter time changes
Automatic time update – no manual intervention
Lithium battery information back-up (10 years)
Extruded aluminium construction
Polycarbonate face
Slim line construction
Simple fixing
Automatic connection
Modern style and design

Power supply: 220/240 VAC- 50/60 Hz – 20 VA
Automatic operation: Free-standing, signal reception (½ minutes, 1 min serial or parallel 12 – 24 V)
MSW radio synchronisation
GMT, BST and other time zones
Alternative time / date display (AGENA)
Max. / min. ambient temperature:..- 25 °C / + 70°C

Choice of languages for date display: French, English, German, Spanish, Italian, Dutch

Sectors of application:

banks, transport, administrations, hotels, industry, plants, train/bus stations

Dimensions:

VEGA..... 530 X 233 X 90 mm
AGENA.....340 X 160 X 82 mm
GALAXY.....530 X 233 X 90 mm



250 SERIES CLEAN – ROOM TELEPHONE

Application Areas: Hospital, Pharmaceutical, biochemical laboratory, semiconductor Manufacturing



Features

- Hands free, full-duplex, Two auto- dial number allow quick connection*(PBX /VoIP)
- 'R' button allows Push To Talk function
- Completely smooth front panel is sealed with an overlay(no hole) that keeps the phone particulate-free and makes cleaning quick and easy.
- Auto answer option allows clean room personnel to answer calls without leaving their stations.
- Patented membrane filter model ensures the clearance of the communication. The built-in power amplifier ensure the volume of the built-in loudspeaker.
- Directly dialing and memorizing.
- Colorful keys make operation convenient.
- Remote parameters setting and code protection programs.

Clean-room telephone, **250** series are popular in biomedical, chemical industry, hospital, semiconductor and other areas. **250** series realize the communication in no bacterial environment.

Technical Specifications

Voltage:12 - 60 Vdc
 Consumption:< 40mA
 Ringing Voltage:.....35 – 90 Vca
 Dialing Mode:.....DTMF/Pulse
 Ring Sound Level:.....85dB / 1 M
 Flashing:.....Adjustable
 Auto-answer:Adjustable
 (Factory setting : auto-answer after 3 ringing)
 Auto-hang up:....After PPT audio signal intermitting
 Communication mode: Handsfree, full-duplex

Operation Function

Keyboard:.....12 keys (*, #, 0,1...9)
 Memory:1 to 10 emergency calls memory
 Programming:100% by the telephone keyboard or other telephone with keyboard

Equipment Specifications

Body material/color: ...polyester fiber (white & blue)
 loudspeaker/Micro: ...front panel built-in integrated
 Installation:.....flush-mounted-wall mounted
 Terminal connection:.....Internal pins connection
 Dimensions:.....180 x 260 x 58 mm
 Weight:.....2,0 kg
 IP Rating:.....66
 Max. / min. amb. temp:-20°C / + 60°C

Options

- WK026 module , realizing remote control the door.
- PBX , INTERCOM or VoIP system networking
- Customized panel (Customized Logo , emergency number printing, etc.)

Advantages of 250 Series as following :

- Total sealed design. Different from other companies' panel with holes, the smooth front panel without holes ensures the voice transmission. In addition, total sealed design of TLS250 make sure that no water left after user's cleaning the telephone, neither bacterial or dust left during daily using.
- Built-in power amplifier. TLS250 adapts sound pressure infiltration to transmit voice, by amplifying the built-in loudspeaker. This feature ensures the communication clearance in a noisy environment.
- TLS250 series provide 3 system solutions to satisfy the users' different applications: Standard telephone systems based on PBX; Intercom systems without PBX, and VoIP telephone system based on IPBX.



Reference I: *Bayer France -- PABX solutions*

Bayer is one of the largest chemical, biomedical and agricultural chemical manufacturers in France. LE LAS, together with Alcatel France, in 2006 provided telecommunication solutions for plants of Bayer Schering Pharma, located in Loos.

Customer requirements :

- The clean room telephone for production zone should be one part of the telecommunication systems.
- A remote access control function is necessary.
- The telephone should be suitable for certain places very noisy.
- The emergency numbers should be available, in case of emergency it can be used for calling rescue by pressing one single button, for instance '19' , '18', etc.
- Easy maintenance and management. No need a long-time training for operators.

Solutions :

- Alcatel OmniPCX exchange.
- 55 sets of flush-mounted TLS250S1CL

This is a "turn - Key" project. After the project accomplished :

- to make off a group numbers from Alcatel exchange for production zone's communication.
- to equip with WK026 relay circuit. User can identify other's inquiries by voice and monitoring video system, then open the door in remote by activating TLS250S1CL relay.
- Pass facility to 'Push To Talk' mode (half-duplex : press/ release 'R' to talk) , so that filtering better the noise. In addition, all the equipments can be protected by codes, by programming of keyboard.
- Maximum 10 numbers memories, from 0 to 9. Can take some of them as emergency /quick numbers.
- Dispose an automatic pick-up and time out hook function, which activates the communication after 3 rings. And once the communication is finished, the telephone can be hung up automatically to ensure the next communication.

REFERENCE II: *BAXTER Switzerland -- UNIVERSAL Solutions*

BAXTER International Inc. was established in 1931 in United States. As a global, diversified healthcare company, BAXTER develops, manufactures and markets products that save and sustain the lives of people with hemophilia, immune disorders, infectious diseases, kidney disease, trauma, and other chronic and acute medical conditions. LE LAS provided the intercom system in 2004 for its pharmaceutical plant located in Volketswil of Switzerland.

Customer requirements :

- The Intercom should facility to install and connect. System should will worked without any exchange, but necessary common commanding function should be available and partially automatic.
- It can be used as a Public address system, an intercom system with dialing number, also a conference system with more than 5 terminals.
- Each terminal can call each other freely by dialing number.
- The system should be economic, allowing costing as lowly as possible in the future for expansion solutions.

Solutions:

LE LAS supplied a 'UNIVERSAL' intercom system, including 38 sets of TCH250SG flush-mounted station and TCH250SGS wall-mounted station.

After the project is accomplished, LE LAS satisfied the user's inquiries, by providing various functions as following:

- System uses a coaxial cable to transmit signal and power. Bus configuration facility the connection. System can be expanded to maximum 100 stations in the future. The expansion could be made just by connecting new stations with the cable.
- There is no exchange for the system. The automatic commanding communication function is realized by the built-in processors of each station.
- System with half-duplex communication and broadcasting function. The conference function can be realize entre all of station.



- Each station calls the others with dialing Max 2 buttons. If the conversation channel is occupied, a broadcasting will be activated towards the others stations.
- All stations with remotely program and auto-test function. The programs are protected by codes.
- Different use mode is offered: Some of stations been set to hook off automatic to ensure the user keep working during the conversation. Some of others is set as being controlled mode, That means the caller presses PUSH TO TALK to control and answer communication, while as the called party can start communication without manual control, in order to make sure user work will not be interrupted.

REFERENCE III: SANOFI PASTEUR -- VOIP Solutions

SANOFI PASTEUR is the largest medical manufacturer in France. LE LAS started cooperation with SANOFI PASTEUR since 1989. In 2008, SANOFI PASTEUR expected to upgrade its LAN and to establish an IP telephone system also a main network by Cisco server. LE LAS, together with INEO France, supplied a VOIP communication system for SANOFI PASTEUR.

Customer requirements :

- With a large surface, the plant can't be equipped with new cables on a large scale.
- The emergency numbers should be available, in case of emergency it can be used for calling rescue by pressing one single number, for instance '19' , '18', etc.
- Easy maintenance and management. No need a long-time training for operators.

Solutions :

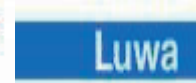
- Cisco Catalyst 4500 series exchanges recommended by INEO and approved by customer.
- TLS250S1CLIP VoIP (SIP) PoE terminals

After the project is accomplished :

- Maximum 10 memoires numbers, from 0 to 9. User can take some of them as the emergency /quick numbers.
- Push To Talk mode (half-duplex : press/ release 'R' to talk) by program , in order to woke at noisy environment. In addition, all the equipments can be protected by codes, by programming of keyboard.
- Dispose an automatic pick-up and time off hook function, which activates the communication after 3 rings. And once the communication is finished, the telephone can be hung up automatically to ensure the next communication.
- Ethernet's power of the station is supplied through PoE.
- User can configure and test the IP telephone terminals on-site by computer, as well activate the calling from PC to station



SOME REFERENCES for CLEAN ROOM TELEPHONES AND INTERCOMS





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