



InterLAN

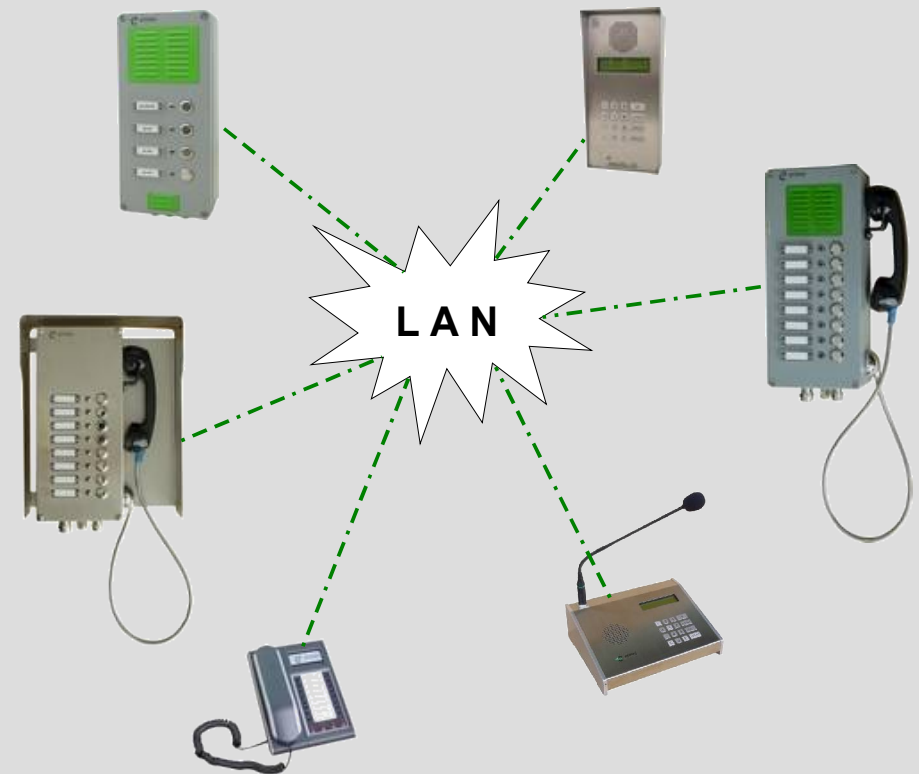
Intercom system over LAN Ethernet

Introduction to intercoms over LAN

InterLAN is a family of intercoms over LAN with IP protocol founded on the use of VOIP that transfers the audio over standard LAN.

Every intercom is IP native and exploits the network Ethernet to effect the communications between an apparatus and the others.

The interface to the LAN is directly integrated on the card and therefore these intercoms directly connect him to the net. Not interfaces, management units or central servers are necessary; in such way it is notably increased the general reliability of the system.

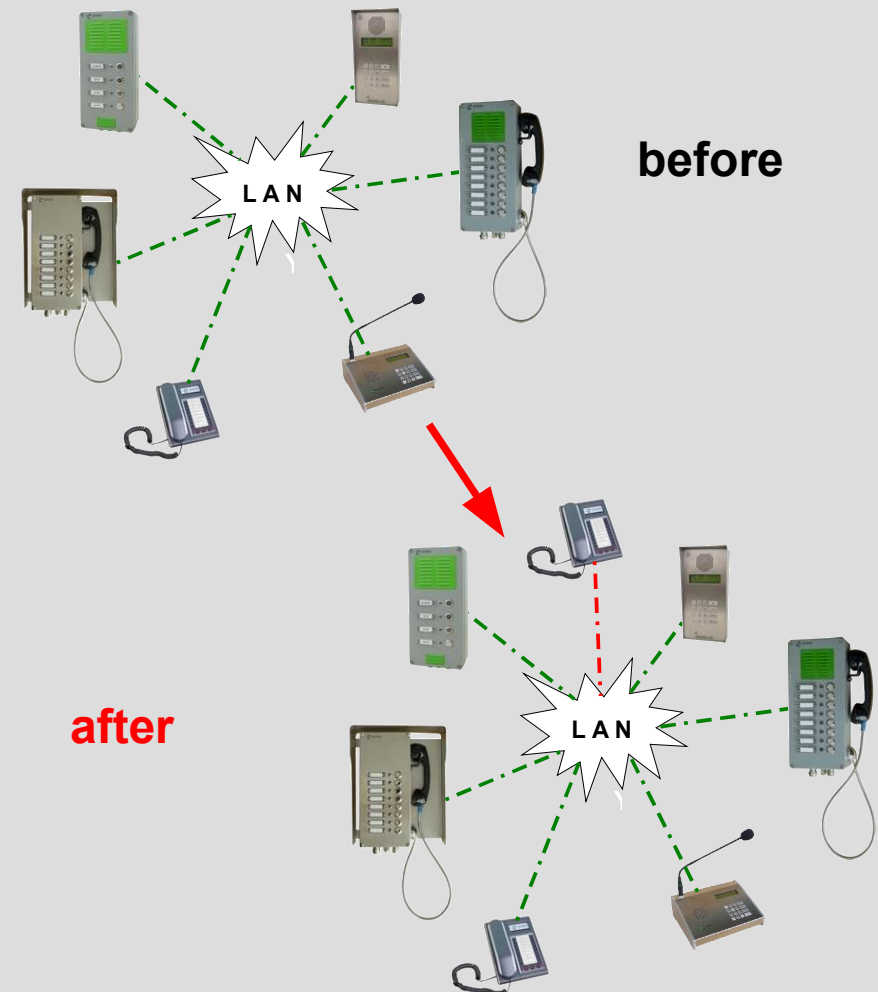


Introduction to intercoms over LAN

The technique of Voice Over IP allows to integrate the system realized with these intercoms over an existing LAN without the necessity of laying additional complex and expensive nets of cables; so you can get a strong reduction of the costs, simplicity of the installation and inexpensiveness of the management.

Every apparatus only needs the connection to the LAN and of the power supply.

Thanks to the use of the LAN and of the IP protocol it is possible to expand the system in every moment simply by adding to the LAN a new intercom with a new IP address.



Principles of operation

On initial setting of the system, you must assign a static IP address to every intercom, this IP address identifies it in unequivocal way on the network allowing so the correct addressing both of the management data of the system and of the audio data.

In order that the users are able more easily to identify the apparatuses, you must assign to every intercom a progressive number and a name.

IP address :192.168.0.3
ID number : 2
Name : Gate SUD



Since the intercoms manage the connection to the LAN directly, in order to establish the connection among two different apparatuses, it is enough that on each apparatus you memorize not only own IP address but also the map of IP addresses of the other apparatuses with which the communication must be established.

You can start the communication with an any other intercom by means of an opportune control on each of them.

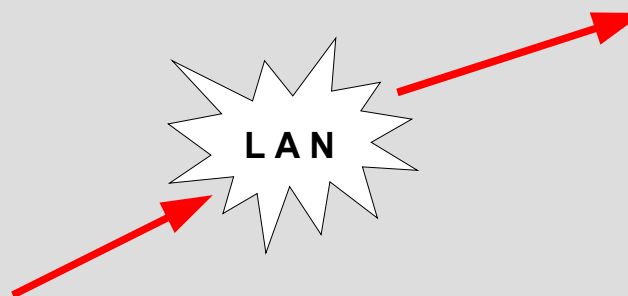
Selective intercoms

The selective intercom systems exploit the fact that an apparatus is able to effect a direct call toward another apparatus when you activate a control that can be or the pressure of a button or the digitation of a code on a combination keyboard.



By pushing button 1
you call 192.168.0.3

IP address :192.168.0.10



IP address :192.168.0.3



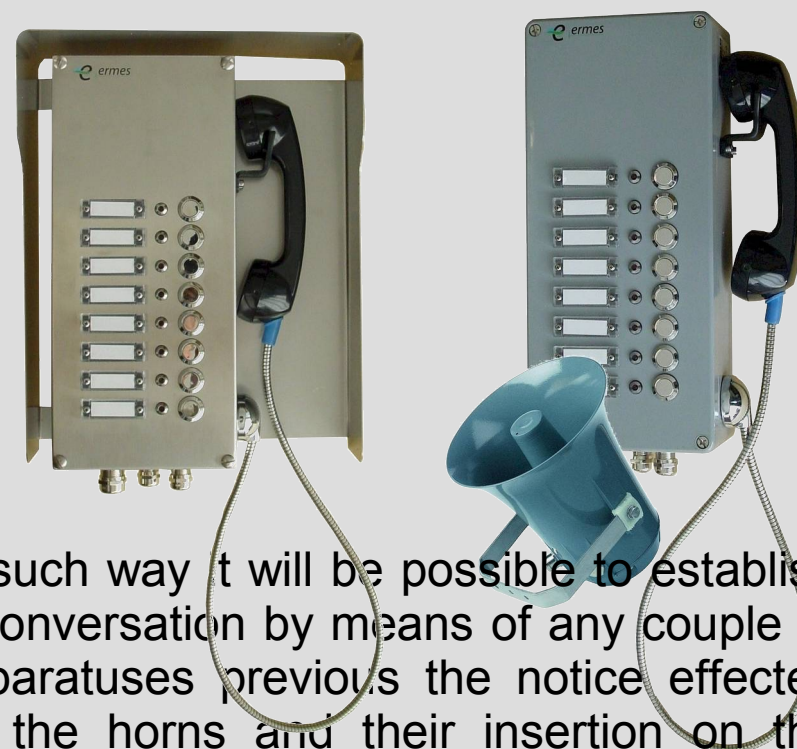
In conclusion it is assumed that the people that is calling know the position of the interlocutor which they wish to contact and consequently they forward a connection request directly to the intercom positioned near that position.

Ring intercoms

When the person with which you wish to communicate is not in a known position it is impossible to establish a selective call.

In these cases people use a system named "ring intercom" in how much it makes reference to an old analogical intercom system where one or more telephone cables connect all the intercoms; on control of special buttons, you can connect two any apparatuses to the same cable in order to effect a conversation.

In order to call the person with which is desired to communicate and to decide the conversation line to use, all ring intercoms pilot an external horn that allows to spread messages in the area served by the intercom system.



In such way it will be possible to establish a conversation by means of any couple of apparatuses previous the notice effected on the horns and their insertion on the same virtual conversation line gotten through the LAN.

This typology of systems preferably uses intercoms with handset so also allowing the conversation among more users.

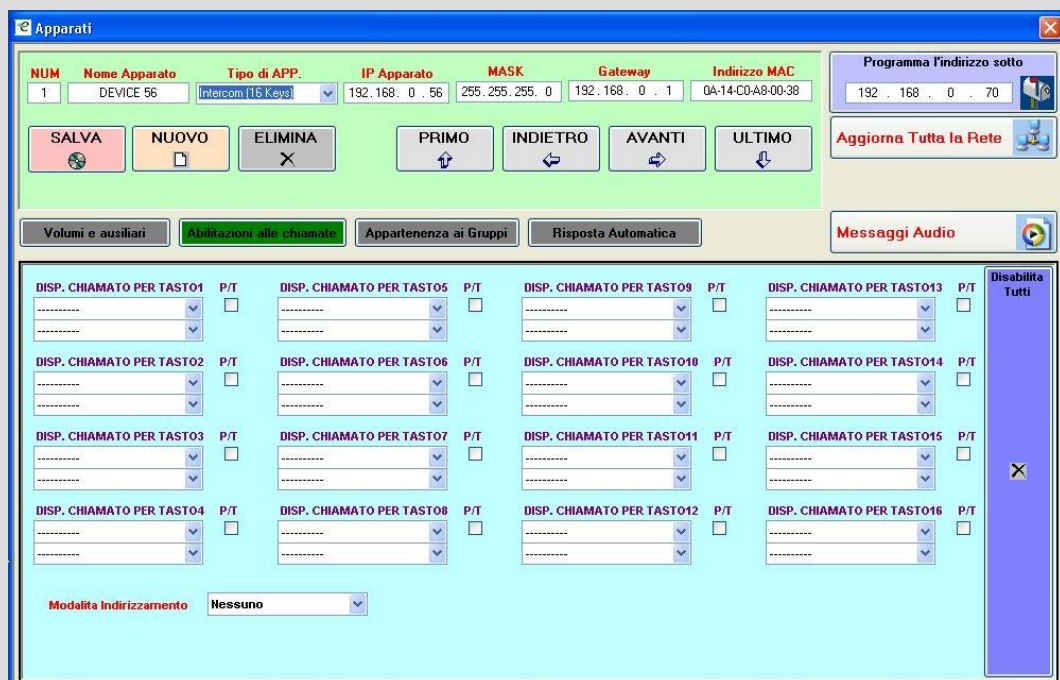
Reliability of the system

The intercoms systems carried out with ERMES equipment have high reliability thanks to some exclusive features as:

- The hardware of each apparatus is purpose-made by ERMES specifically to be used in the intercoms by adopting industrial criteria on choosing the components and the technology.
- Each intercom has self-test features (Audio-Loop Test) that reveals any fault in a short space of time.
- The consoles used as main intercom constantly supervise the LAN connection and monitor the result of the self-test function of each intercom. The direct managing of the connection to the LAN, the ability to connect other equipment directly and the lack of interfaces, server or whichever main units allows the remaining system to work correctly even when a device faults.

Programming of the intercoms

The software SetLAN-SW allows you to configure the parameters of the LAN and the operating data of the intercoms as the volume of the loudspeakers, the messages reproduced by the intercoms in order to give information to the user about the call, the operating mode of the auxiliary relays.



The setting directly takes place through the LAN without necessity to directly intervene on the installed apparatuses in field

Still through LAN it is possible to effect the updating of the firmware or the change of the pre-recorded messages that assists the user during the operational phases.

The intercoms range

All the intercoms of the family InterLAN can work both in systems with selective call both in systems with ring call simply by varying the setting of the apparatus. It is also possible to make systems with mixed operation mode.

Every intercom, both for ring systems both for selective systems, is IP native and it exclusively exploits the Ethernet to effect the communications among the apparatuses; every intercom is connected to the LAN directly without the mediation of interfaces, additional unity of management or central unity of some type.

The intercoms are available in different versions that make them proper to be used inside or outside, in industrial environments or in offices; you can find versions in stainless steel, versions with strong enclosure in die casting aluminum as well as versions with enclosure in polyester loaded glass. Consecutively the principal available versions are listed.

Intercoms -L range



InterLAN-L

These are apparatuses for which the use is preferable in the systems of selective intercoms.

They are arranged in a strong box entirely made in stainless steel suitable to be installed on wall, inside as well as outside.

They are available in versions with one or with four buttons of call each of which is equipped with a label holder for the name of the called station and with a signalling led; on the frontal panel, besides, the microphone and the loudspeaker are present.

On the back side we placed two holes for the cables entry that, if necessary, you can equip with cable gland.

Intercoms standard range

InterLAN.4P / 8P

These are apparatuses for which the use is preferable in the systems of selective intercoms.

They are arranged in a strong die casting aluminium case with a protection grid for microphone and loudspeaker, it is suitable to be installed on wall; these intercoms are specially suitable to be used in industrial applications, inside as well outside.

You can have them with four or with eight call buttons each of which is equipped by a label holder for putting the name of the called unit and by a signalling led.

The cables incoming is made by means of cable glands placed on the inferior part of the apparatus.

The box can also be made in polyester added with fibre glass that is suitable to be used in sea environment.



Intercoms with handset



InterLAN.4PC / 8PC

These are apparatuses for which the use is possible in selective systems as well as in ring systems.

These intercoms use a strong case entirely made in die casting aluminium, they have a handset for carrying out the conversations and a loudspeaker, that is protected by grid, reproduces the general calls and the group calls; they are suitable to be installed on wall and they can be used inside and outside in industrial environments.

They are available with four or with eight call buttons each of which is equipped with a label holder for the name of the intercom that you can call by means of the button and with a signalling led.

The cables incoming is made by means of cable glands placed on the inferior part of the apparatus. The box can also be made in polyester added with fibre glass that is suitable to be used in sea environment.

Intercoms with external horn

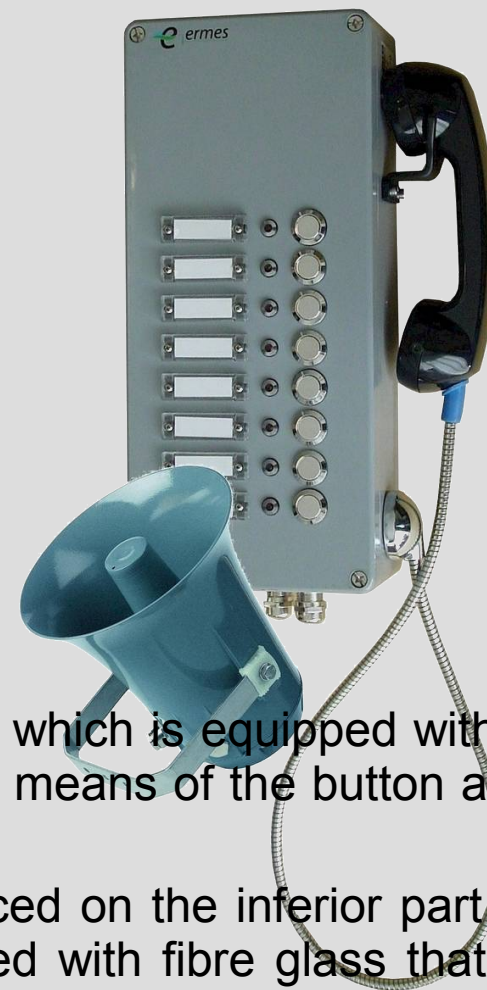
InterLAN.4PCT / 8PCT

These are apparatuses for which the use is possible in selective systems as well as in ring systems.

These intercoms use a strong case entirely made in die casting aluminium, they have a handset for carrying out the conversations and they build in a 30W audio amplifier that has 100V line output and that can drive external horns in order to make general calls or group calls; they are suitable to be installed on wall and they can be used inside and outside in industrial environments.

They are available with four or with eight call buttons each of which is equipped with a label holder for the name of the intercom that you can call by means of the button and with a signalling led.

The cables incoming is made by means of cable glands placed on the inferior part of the apparatus. The box can also be made in polyester added with fibre glass that is suitable to be used in sea environment or in AISI316L stainless steel.



Intercom in office version

InterLAN.16PO

These are apparatuses for which the use is possible in selective systems as well as in ring systems.

They are arranged in a ABS case with microphone and handset, it is suitable to be installed on wall or on table and to be used in office applications.

They have sixteen call buttons each of which is equipped by a label holder for putting the name of the called unit and by a signalling led; moreover they have three buttons for activating the remote relays present on the intercom connected in each moment.

You can use it in systems with POE feeding or in systems without this option by using the external feeder included.



Main intercoms



InterLAN.PP / InterLAN-L.PP

People use these apparatuses in selective systems preferably; usually they work as main intercom but, if you need, you can make an entire system with these intercoms.

They are arranged in an aluminium case with microphone and loudspeaker, the first is suitable to be installed on desk and the second on wall; these intercoms are specially suitable to be used in industrial applications.

You can start the call with the aid of a numeric keypad and a LCD display that shows the list of the intercoms installed in the system.

These intercoms manage several functions as the management of the contemporary calls and the diagnostic of the entire system.

Spheres of application

The use of the LAN allows to to reduce the installing costs and to simplify the maintenance of the system and to warranty high reliability of the apparatuses; consequentlly you can take advantages in many application fields.

- **Steelworks**
- **Glassworks**
- **Chemical plants**
- **Offshore rig**
- **Industrial areas**
- **Stores**
- **Hospitals**
- **Shopping plazas**
- **Subways**
- **Railway stations**
- **Transport**
- **Airports**
- **Petrol stations**
- **Parks**
- **Campus**
- **City surveillance**

Some our customers

- **Ferrovie Nord Milano**
- **Circumvesuviana**
- **Acciaierie Valbruna**
- **Acciaierie di Cogne**
- **Autostrada Messina Palermo**
- **Ferriera Valsider**
- **Saint Gobain Glass (Polonia)**
- **EnelPower Brindisi**
- **C.R.I.F.**
- **Aeroporto di Cagliari Elmas**
- **ENI Saipem Semac1 (Singapore)**
- **COMIFAR**
- **Agusta Westland**
- **Raccordo Autostradale Aosta Monte Bianco**
- **Ferrovia CENTOVALLI (Svizzera)**
- **VODAFONE**