ELCRODAT 6-2

Secure voice and data communication in Euro-ISDN

◆ High-end encryption system for telephone, fax, data and video communication

◆ Online transmission of information from UNCLASSIFIED to TOP SECRET

◆ Two models available: for Euro-ISDN basic rate access and Euro-ISDN primary rate access

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Highest level of security in Euro-ISDN

The modern information society calls for ever faster actions and reactions. This means that the exchange of highly sensitive information over the public communication network is unavoidable. But the risk of information being intercepted or data stolen increases as technology progresses; damage caused by eavesdropping runs into billions every year.

ELCRODAT 6-2, the high-end encryption system of the latest generation, provides secure transmission of classified information up to TOP SECRET. It can be used for all ISDN basic services, even via satellite links (Inmarsat M4), e.g. for:

◆ Voice
◆ Data
◆ Fax (group 4)
◆ Video conferences

Maximum security is achieved with a minimum of personnel and administration.

One system – two versions

The ELCRODAT 6-2 system is available in two versions:

◆ ELCRODAT 6-2S for secure Euro-ISDN basic rate access (S_0 bus/port)
◆ ELCRODAT 6-2M for secure Euro-ISDN primary rate access (S_{2M} port)
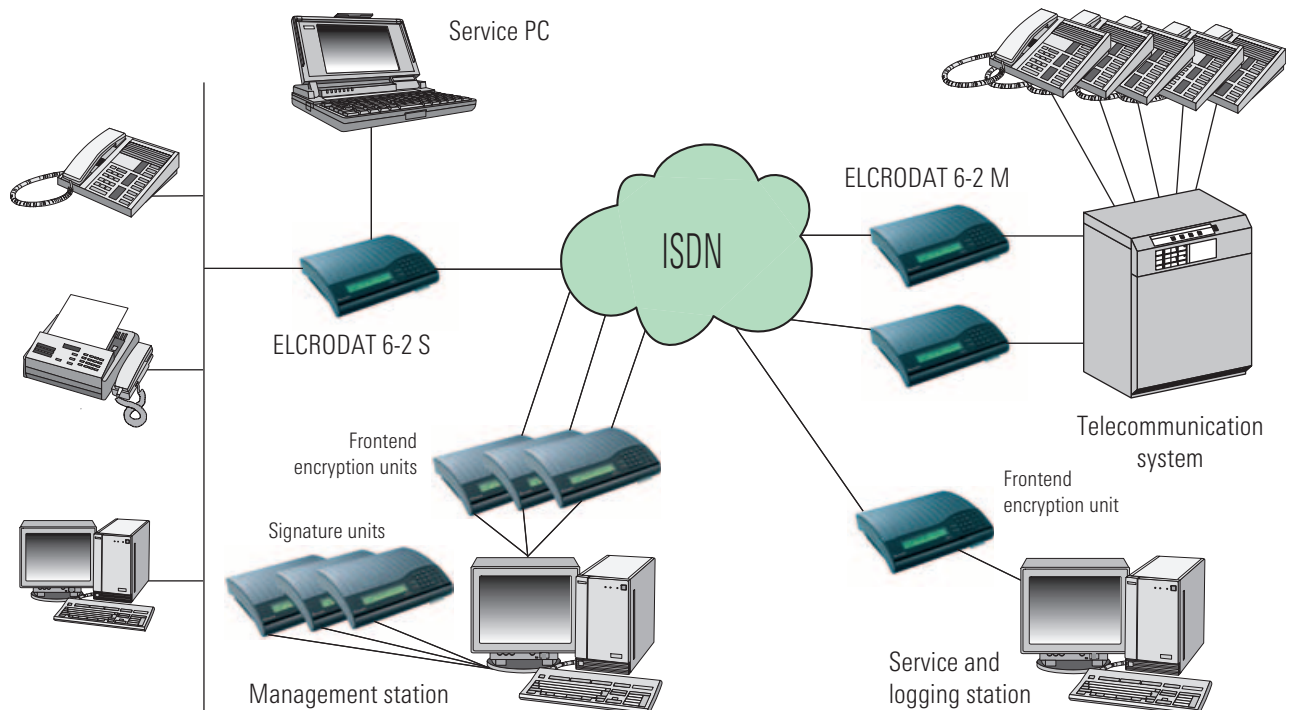
As a supplement to existing Euro-ISDN terminals or PBXs, the **ELCRODAT 6-2S** is the ideal solution for secure voice and data communication at every level from UNCLASSIFIED to TOP SECRET. It can be used in conjunction with up to eight commercial ISDN terminals or with a PBX. The exchange access is either direct via the S_0 basic rate interface or via a PBX.

The **ELCRODAT 6-2M** permits simultaneous single-channel encryption of up to 30 channels. A typical application of this version is the 2 Mbit/s port encryption at the frontend of ISDN PBX systems.

Top-security crypto technologies

The ELCRODAT 6-2 is the first encryption unit approved by the German Information Security Agency for the transmission of information classified up to TOP SECRET which uses a public key method for key distribution. In conjunction with the public key method, the noise generator implemented in the encryption unit permits mutual authentication and key agreement. New session keys are generated in the encryption unit for each connection. They do not leave the units and are deleted after the session, thus ensuring maximum security.

System overview of ELCRODAT 6-2S or ELCRODAT 6-2M

Service PC

ELCRODAT 6-2 S

Frontend encryption units

Signature units

Management station

ISDN

ELCRODAT 6-2 M

Telecommunication system

Frontend encryption unit

Service and logging station

Design

The ELCRODAT 6-2 high-end encryption system consists of the following components (see system overview on page 2):

◆ Encryption units
◆ Management station for certificate administration
◆ Service station for remote administration
◆ Logging station for remote monitoring of the encryption units

Management station

The management station assigns the authorization to participate in encrypted operation within a user group. Using a secure protocol, it sends a signed certificate via an ISDN connection to the participating encryption unit. The management station also determines or extends the period of validity of the certificate.

The management station can be expanded according to the number of encryption units and user groups to be managed; it consists of a workstation with backup system and up to three frontend encryption units and three signature units.

Service station

In the service station, the operating parameters and the D-channel filter parameters can be set centrally and distributed to the encryption units via an ISDN connection, using a secure protocol. The service station consists of a workstation with backup system and a frontend encryption unit.

Signalling channel filter and monitor

The signalling channel is monitored and unwanted protocol elements are filtered out. Specific numbers can be rejected or assigned special privileges. This security function primarily prevents manipulation of PBXs, as well as of other ISDN terminals.

Logging station

The ELCRODAT 6-2 encryption system has a logging memory in which all unauthorized attempts to access or manipulate the system, activities of the D-channel filter, etc, are entered. Using a secure protocol, the memory contents are transmitted via an ISDN connection to the logging station for evaluation and archiving. The logging station consists of a workstation with backup system and a frontend encryption unit.

Service PC

As an alternative to the service and logging station, the logging memory of the encryption units can also be configured and read locally on the ELCRODAT 6-2 from a standard PC.

Specifications

Model	ELCRODAT 6-2 S	ELCRODAT 6-2 M
Power supply	230 V AC, approx. 15 VA	230 V AC, approx. 20 VA
Useful data rate (without signalling)	max. 128 kbit/s	max. 1920 kbit/s
Number of channels that can be encrypted independently	2	30
ISDN interfaces to the terminal equipment and network termination	S_0 (4-wire copper)	S_{2M} (4-wire copper)
D-channel protocol	E-DSS 1	
RF leakage-proof	AMSG 720B	
Suitable for security classifications up to	TOP SECRET	
Dimensions (W x H x D)	330 mm x 75 mm x 282 mm	

Ordering information

ELCRODAT 6-2	3534.3129	3534.3106

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