TELESIGNAL®

TSEC 3000 IP & GSM

Alarm transmission

Catalogue 2021 v1.00

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1 Introduction

Telesignal designs and manufactures alarm communication equipment since 1982. After the introduction of IP wired and wireless networks we developed a complete new range of IP transmitters and central station receivers. The wired transmitters are compatible with WAN, LAN and VPN networks, the wireless transmitters use the GSM LTE CAT-M and GPRS bandwidth.

The range offers products for single path and dual path transmission according to the EN 50136 regulation. The transmitters can be connected over hardwired zones and/or over the dial capture to the analogue phone connection of a PSTN alarm panel. For detailed alarm transmission of fire panels the TSEC 3000 range supports a RS232 ESPA 4.4.4 port. All transmitters are supplied with the multilingual program tool ParamIt+. Programming our transmitters is very easy over the plug & play USB port and pre-programmed settings. Installation is also easy with the powerful diagnostics tool in ParamIt+.

1.1 EN 54-21

The TSEC 3000 is approved by VdS to the fire regulation EN 54-21. The 230 VAC version also has the EN 54-4 certification for the power supply. The certification includes a programmable DC power output 9-24VDC 18W to power a DSL modem/router with battery backup at power failure. The combination of the dial
capture port and the EN 54-21 certification is unique in the market and offers the option to transmit burglary and fire with one transmitter using multiple transmission paths. The TSEC 3000 is registered under 0786-CPR-21411.

2 Communication formats

2.1 General

Recently several new, mostly manufacturer related and shielded, IP communication formats were introduced. Monitoring centres were bound to invest in several IP receivers to stay compatible with these manufacturers. Beside the investment in receivers it also leads to separate infrastructures. There where IP should save money in the reception and infrastructure the costs increased. For the installer it became more complex to program individual transmitters to the compatible receiver, also because IP settings are more comprehensive then programming a phone number.

The TSEC 3000 uses the open DC-09 and for Germany the VdS 2465 format. The universal DC-09 format, which includes SIA and Contact-ID, is introduced by the same SIA organisation that introduced SIA and Contact-ID telephone formats. Both DC-09 and VdS 2465 are open formats and support plain and encrypted transmission. These formats are compatible with a wide range of multiprotocol receivers that are widely available at monitoring centres.

2.2 Encryption

De TSEC 3000 is equipped with an integrated hardware encryptor processor that supports AES 128, 192 en 256 encryption. The integrated encryptor calculates the data on the fly so no time is lost in any transmission. Activation of the encryption is a user setting for optimum compatibility to all monitoring stations.

2.3 Provider independent

The TSEC 3000 is provider independent and are suitable for open and closed (VPN-APN) networks and GSM SIM cards. The TSEC 3000 supports multi-roaming SIM cards. There are no mandatory subscriptions for the SIM card. To keep track of the SIM card installed in the transmitters the ICCID number of the SIM card is sent to the monitoring receiver every day.

2.4 Dial capture port

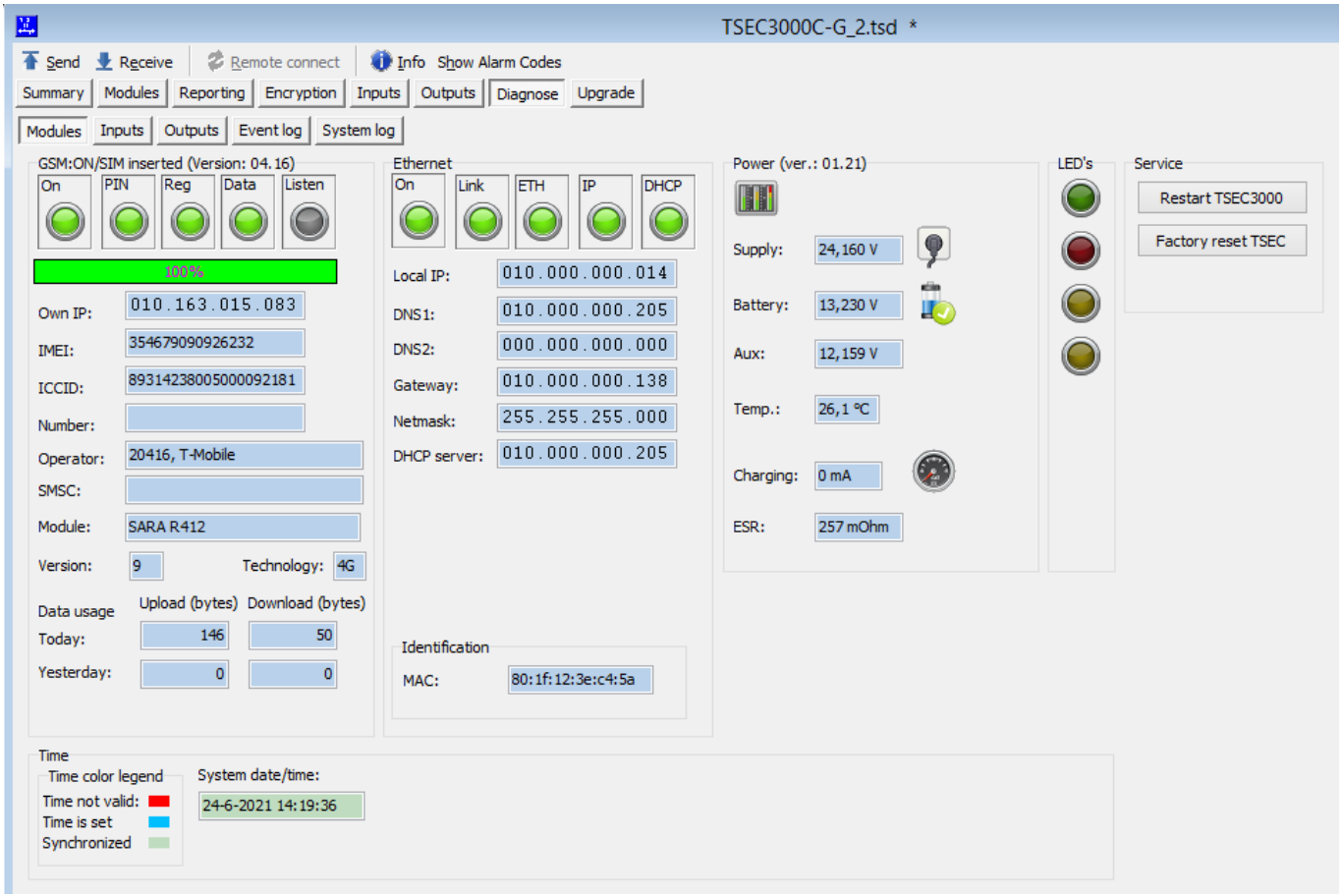
The dial capture port "reads" the SIA and Contact ID (CID) message from the analogue (PSTN) dialler of the alarm panel and convert this into the DC-09 IP format. Most alarm panel types are already implemented, panels that are not compatible yet can be implemented in a matter of days. The SIA conversion supports all levels including text blocks.

2.5 ESPA port

The ESPA RS232 port offers detailed transmission of all alarms and malfunctions of a fire panel. The information which smoke or thermal detector triggered the alarm is now available for the monitoring station. The ESPA triggers are free configurable for call address and display message of the 4.4.4 standardized protocol. An active heartbeat monitors the state of the ESPA connection, a failure is reported to the monitoring station.

3 Configuration and diagnose

De multilingual (English, German, Dutch) program tool, ParamIt+, is free available and can be downloaded from our site. The tool offers easy configuration of the transmission classes and reporting settings. The configuration can be done local over the USB port or remote using a LAN connection. The tool can be customized with a company logo.



The diagnostic tabs shows live status information about the transmissions paths, the dial capture, inputs and the transmitter log. Diagnostics are local and over remote accessible.

4 Ethernet (IP) only SP2/3/4/5/6

4.1 Reporting over the Ethernet port

The TSEC 3000 in this version is equipped with one transmission path; Ethernet. The Ethernet port supports LAN and WAN 10/100Mb autosense. The smart DHCP setting takes care of an easy installation directly to a DSL modem or in a company network.
Telesignal supplies the TSEC 3000 E transmitter in a 10-28 VDC version and the TSEC 3000 C in 90-260 VAC version with an integrated power supply for the DSL modem and battery backup. The dial capture can be added as an option at purchase, P version

4.2 TSEC 3000 Ethernet (IP)

This TSEC 3000 E version is available as PCB, in a plastic or metal wall mount box. The C version with build in AC power supply is only available in a metal wall mount box. The ESPA expansion is not available in the plastic wall mount box.

Specifications

- Dial Capture port for SIA and CID alarm panels
  - P version optional
- 8 analogue guarded zones
- 2 digital zones
- 2 relay outputs
- LED indication
- 10/100Mb Ethernet port
- Test en poll mechanism
- USB program port
- DC-9 TCP/UDP and VdS 2465 format
- AES encryption
- ESPA 4.4.4 port optional
- 2 meter CAT-5 cable

TSEC 3000 plastic and metal wall mount box

Articles

Article: T206500:
TSEC 3000 E PCB 10-28 VDC

Article: T206505:
TSEC 3000 E P PCB 10-28 VDC with dial capture port

Article: T206500K:
TSEC 3000 E in plastic box 10-28 VDC

Article: T206505K:
TSEC 3000 E P in plastic box 10-28 VDC with dial capture port

Article: T206500M:
TSEC 3000 E in metal box 10-28 VDC

Article: T206505M:
TSEC 3000 E P in metal box 10-28 VDC with dial capture port

Article: T206520:
TSEC 3000 C in metal box 90-260 VAC

Article: T206525:
TSEC 3000 C P in metal box 90-260 VAC with dial capture port

The C version has a programmable battery charger for a 12V battery range from 0,8 to 17 Ah.

The ESPA add on is available for all versions except for the TSEC 3000 in the plastic box.

5 Ethernet-GSM combination DP1/2/3/4

(If set to GSM only reporting SP2 and SP3 are also possible)

5.1 Ethernet en GSM

These TSEC 3000 versions are equipped with 2 transmission paths; Ethernet and GSM LTE CAT-M/GPRS. Both transmission paths are configurable as single path and as primary-backup combination.
The TSEC 3000 Ethernet-GSM monitors both paths and changes the backup polling interval to the primary rate when the primary path is down. The alarm messages are automatically sent over the backup path when the primary path is not available.
Both the PCB versions as the boxed versions are the same as described in chapter 4 but expanded with a GSM LTE CAT-M with GPRS fallback communication module.

5.2 TSEC 3000 Ethernet (IP) & GSM

This TSEC 3000 E G version is available as PCB, in a plastic or metal wall mount box. The C G version with build in AC power supply is only available in a metal wall mount box. The ESPA expansion is not available in the plastic wall mount box.

Specifications

- Dial Capture port for SIA and CID alarm panels
  - P version optional
- 8 analogue guarded zones
- 2 digital zones
- 2 relay outputs
- LED indication
- 10/100Mb Ethernet port
- LTE CAT-M GPRS fallback GSM communication module
- Test en poll mechanism
- USB program port
- DC-9 TCP/UDP and VdS 2465 format
- AES encryption
- ESPA 4.4.4 port optional
- 2 meter CAT-5 cable

Articles

Article: T206510:
TSEC 3000 E-G PCB 10-28 VDC

Article: T206512:
TSEC 3000 E-G PCB 10-28 VDC with ESPA port

Article: T206515:
TSEC 3000 E-G P PCB 10-28 VDC with dial capture port

Article: T206510K:
TSEC 3000 E-G in plastic box 10-28 VDC

Article: T206515K:
TSEC 3000 E-G P in plastic box 10-28 VDC with dial capture port

Article: T206510M:
TSEC 3000 E-G in metal box 10-28 VDC

Article: T206511:
TSEC 3000 E-G in metal box 10-28 VDC with ESPA port

Article: T206515M:
TSEC 3000 E-G P in metal box 10-28 VDC with dial capture port

Article: T206530:
TSEC 3000 C-G in metal box 90-260 VAC

Article: T206533:
TSEC 3000 C-G in metal box 90-260 VAC with ESPA port

Article: T206535:
TSEC 3000 C-G P in metal box 90-260 VAC with dial capture port

The C version has a programmable battery charger for a 12V battery range from 0,8 to 17 Ah.

Accessories:
Article: T209120:
Outdoor antenna puck vandalism proof with 2,5 meter cable

Article: T209121:
Indoor antenna self-adhesive white with 2,5 meter cable

Article: T209126:
Outdoor antenna wall bracket + 3dB with 2,5 meter cable

Article: T209111:
GSM extension cable SMA 5 meter

Article: T209112:
GSM extension cable SMA 10 meter

Production on demand:
GSM extension cable SMA 15 meter
GSM extension cable SMA 20 meter
GSM extension cable SMA 25 meter

Article: T207060:
R-Block PCB for easy installation of three double resistor guarded zones EN54-21

Article: T206601:
Expander card 20 analogue guarded zones

Article: T206614:
Metal expander box suitable for TSEC 3000 C and three expander cards

Article: T206541:
Key switch for ESPA test setting

6 Dimensions

TSEC 3000 E plastic box: HxWxD 185x145x55 mm
TSEC 3000 E metal box: HxWxD 185x215x65 mm
TSEC 3000 C metal box: HxWxD 290x265x100 mm
TSEC 3000 C metal box expander: HxWxD 260x430x100 mm
(Expander box for use with two or three expander cards)

Conditions

The "General terms & conditions Telesignal Europe BV" apply to all our deliveries and contracts. Changes, printing errors reserved.