

## Universal GSM/GPRS Communicator **gemino™**



**gemino™** is a **Bi-directional Universal GSM/GPRS COMMUNICATOR** specifically developed for **Professional Security** applications, even though its flexibility enables its use in many telecom/communication, industrial and residential applications, basically anywhere there is a need to transmit signals in a reliable manner and in absence of the fixed line (or as alternative to it) in order to protect sensitive installations (like as, but not limited to, industrial plants, solar installations, rural and marine installations, incubators, glasshouses, etc.).

### MAIN FUNCTIONS DESCRIPTION:

- ✓ it delivers a back-up communication to the fixed telephone line (PSTN) which can also be adopted to link standard phones for managing in/out calls
- ✓ It locally decodes the Contact ID protocol, IT INCLUDES A VOICE DIALLER and sends alarm as vocal messages, SMSs and/or emails to your smart phone, PC or to a Central Monitoring Station
- ✓ it remotely manages outputs in order to activate or deactivate any desired automation or Home Appliances in general
- ✓ thanks to the expander module **auxi**, it can manage up to 5 or 10 inputs to activate voice messages, SMS and emails

As an interface, **gemino™** steadily controls the status of the PSTN line: in case of its absence, all linked communication devices will utilize the simulated phone line delivered by the communicator, therefore allowing to make and receive calls via GSM with a very high-quality audio output thanks to the adoption of a digital audio channel.

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Contrary to many other devices currently available in the marketplace, **gemino™** integrates the GSM antenna directly on the PCB, making the external antenna basically redundant for the majority of the application while, for particular installations an external antenna can be added and the Communicator can always manage and provide the best quality signal between the two; moreover, other interesting news is that **gemino™** offers the possibility to manage 2 different SIM cards, even from 2 different Providers, monitoring continuously the status of the GSM network according to 3 different simultaneous modes:

- 1) measuring the signal level and quality
- 2) verifying the proper registration to the GSM network
- 3) detecting the presence of interferences (jamming)

In short **gemino™** is in a position to steadily choose which antenna and which SIM card (or provider) has to be utilized so as to assure the best possible GSM coverage for Security system applications (Patent pending). Additionally, for all pre-paid SIM Cards, the Communicator includes the credit control and the automatic update of each SIM Card's expiring date upon each new re-charge.

This Communicator integrates also a powerful interpreter of the Contact ID protocol: by decoding the local protocol it is able to send vocal messages, SMSs and/or e-mails, making a vocal message, SMS or e-mail available and "customizable" to any control panel's zone (actually it manages up to 200 different programmable events). The vocal messages may also be recorder from PC or importing wave files or utilizing the built-in TTS (Text-to-Speech) Converter.

**gemino™** can be programmed in few seconds by a PC linked the USB port or by using the same port to upload the program from a flash memory with no need to take a PC with. Quite distinctively, it is equipped with the communication **KS-BUS** in order to be linked with new **LCD Keypad** of the **ergo™** series: through the keypad is possible to control, make voice calls and program all **gemino™** 's parameters; on the bus is also possible to link the expander modules **auxi** (only for model KSI4100010.310 or PCBA model KSI4100010.300), thus offering the possibility to manage up to 10 inputs to activate SMS, voice or email or 10 outputs, basically transforming a great interface into a powerful communicator.

Thanks to Easy Scan, **gemino™** indicates which is the best operator(provider)available in the given installation area without inserting any SIM CARD.

At last, it integrates on board 2 OC (open collector), which can be used to indicate a status (e.g. absence of a PSTN or GSM issues) or programmed to be remotely activated taking advantage to the user recognition feature.



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### CERTIFICATIONS:

Country	Certifications	GSM/GPRS Communicator <b>gemino™</b>
Europe	CE	
Europe	R&TTE 1995/5/CE	

### HOW TO PROGRAM:

Through your PC on the USB port, or simply by uploading the program by means of a flash memory on the

USB port,  or thanks to the LCD **ergo™** linked on the **KS-BUS**. 

### MAIN FEATURES:

- ✓ Simulated PSTN line's generator for the connection to any Control Panel
- ✓ Decoding of the contact ID protocol and transmission via vocal messages, SMS and/or email (it allows to receive a voice message, an SMS or an emails for each Control Panel's zone)
- ✓ "Calls –Block function" in case of system disarming
- ✓ Decoding capability up to 200 Contact ID events
- ✓ SMSs and emails can have a length up to 128 characters, for a total of 200 messages associated to contact ID events
- ✓ VOICE DIALLER with the possibility to record up to 200 messages for more than 700s of recording
- ✓ Slots for 2 SIM cards (not included)
- ✓ Embedded Antenna + connector for external Antenna with automatic signal selection
- ✓ USB port for programming and control
- ✓ High quality digital audio
- ✓ **KS-BUS** interface
- ✓ Linkable on the bus to an **ergo™** Keypad and 1 or 2 expander module **auxi**
- ✓ It can be managed and programmed also via system Keypad **ergo™** by means of a dedicated cable (optional)
- ✓ 4 programmable inputs (outputs) on board (*only for model KSI4100020.310 or PCBA model KSI4100020.300*) or alternatively up to 10 programmable inputs (outputs) by connecting 1 or 2 expansion modules **auxi** (*possible for model KSI4100010.310 or PCBA KSI4100010.300 only*)

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- ✓ Voice communicator with the possibility to record up to 200 messages for a total of more than 700 s. of recording time.
- ✓ Voice message recorder through the Keypad or through a pre-recorded message library from PC, or importing a wave file or by means of the Text-to-Speech function
- ✓ Managing of in and out voice calls simply from the Keypad
- ✓ Onboard outputs: 2 OC up to 500 mA programmable as remote control on your mobile phone (via SMS or user recognition)
- ✓ Phone book; up to 100 phone numbers for FREE remote outputs activation (user recognition)
- ✓ Programmable via PC through USB port or by a flash memory upload or via system Keypad ergo™
- ✓ GSM Jamming Detection
- ✓ Telit EasyScan®
- ✓ Credit control on both pre-paid SIM cards

### TECHNICAL DATA:

- ✓ Voltage: 13,8V dc
- ✓ Absorption: 80mA stand-by, 250mA max
- ✓ GSM line: GSM/GPRS Telit BGA module 22x22mm (designed in Italy) quad-band (850-900-1800 and 1900 MHz)
- ✓ 2 OC outputs on board ( GSM failure and PSTN absence) + up to 5 programmable outputs on the expander module
- ✓ Simulated PSTN line : line voltage: 40V, loop current: 20mA, programmable line tone, ring voltage: 120Vac
- ✓ Line selection: DTMF
- ✓ Operative temperature : +5 to +40°C
- ✓ PCB dimensions: 92 x 113 x 20 mm
- ✓ Max. overall -dimensions: mm 140x102 x 30 (max.)
- ✓ Weight: 170 gr.

### PARTS INCLUDED:

product	quantity	component
KSI4100010.310 or KSI4100020.310	1	module KSI4100010.300 or KSI4100020.300
	1	slim case and 1 screw (alternatively may contain 2 expander modules)
	1	Quick Installation Guide in EN/IT

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### OPTIONALS:

p/n

description

KSI4800000.300	Kit external antenna with connector and 30 cm. cable
KSI4800001.300	Kit external antenna with connector and 3 m. cable
KSI7302000.010	Plastic case "slim" only: it may contain a GSM module or alternatively 2 expander modules
KSI7401000.010	Metal box for "auto-powered" version: delivered complete with ground connections and tamper switch, it may contain a gemino PCBA, an expansion module auxi with 5 programmable I/O and a 12Vdc/1,2 A battery
KSI7401000.010	Kit for programming the GSM/GPRS from ergo KP- 1,5 m. cable
KSI7501002.000	Flash memory 4GB personalized KSENIA for program up-load or gadget
KSI7501000.020	Micro-USB adapter, Micro-A male to USB A female color black
KSI7501001.000	Programming cable from PC (USB) to gemino (micro USB) of 180 cm.
KSI2300000.300	Expansion module with 5 programmable I/O and 4 mounting sustainers
KSI4100010.300	GSM /GPRS module (PCBA) and 4 mounting sustainers
KSI4100020.300	GSM /GPRS module (PCBA) with 4 programmable I/O and 4 mounting sustainers

### HOW TO ORDER:

Ksenia finished product:

p/n **KSI4100010.310** or **KSI4100020.310**

gemino™ has been designed and manufactured for the environment as follows:

- Absence of PVC
- PCB laminates free from Brome and Lead
- Low adsorbtion
- Packaging realized mainly with recycled fibers and materials



we care !