

TP8-88 - TP8-88 EN

Expandable serial alarm system



The right combination
of technology and functionality
for a comprehensive protection
of high level

TecnAlarm
Hi-Tech Security Systems



Tecnoalarm RSC® Technology

RSC® (Remote Sensitivity Control) is an exclusive technology developed by Tecnoalarm, thanks to which the central monitoring station (CMS) and the installer can program and control the system completely from a distance. Sophisticated diagnostic tools allow verify and maintain the smooth functioning of each system component as well as adjust and improve the system's performance.



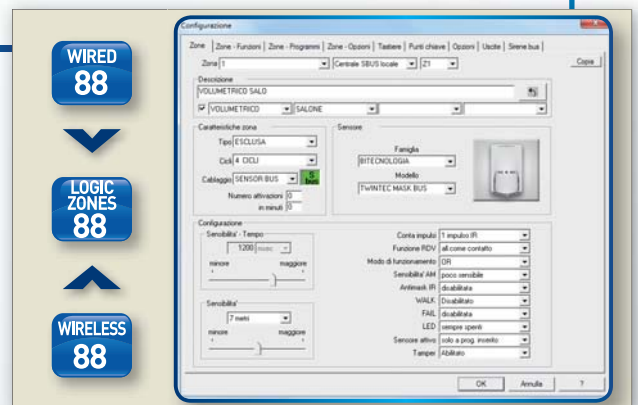
Programming

Programming of the system's functioning parameters can be made either locally or remotely using the Tecnoalarm programming software. The sophisticated software permits easy setting of the numerous functioning parameters of the system as well as saving of the system configurations for future modifications. It facilitates even the compliance with a maintenance plan, as recommended by the application guide CLC/TS 50131-7. The technician of the installer company can check the settings and functioning of each device from his office and adjust programming. So, at least one of the two annual inspections prescribed by the standards can be carried out remotely. The diagnostic tools permit easy analysis of the system's functioning and the automatic saving of the corresponding reports.



Zones

The 8 conventional and the 8 bus inputs of the CPU constitute the basic version of the system. The modular structure as well as the great variety of input expansions permit the expansion to a total of 88 zones which can be freely associated to the hard-wired (conventional or bus) or wireless inputs of the hardware. The zone programming facilities allow to obtain excellent performances even from traditional detectors but only with the Tecnoalarm RDV® and RSC® detectors the system's potential is tapped. These detectors permit the verification and analysis of the alarms at the very moment they are released, through the specific diagnostic tools. The limitations of traditional remote management have been overcome and a new concept of interaction has been proposed. RDV® and RSC® are registered trademarks, RDV® is an international patent.



Programs and control units

The system manages 16 programs for a perfect management of multiuser systems. A wide range of control units is able to satisfy any application requirements. The exclusive touch screen consoles of the series UTS (Universal Touch Screen) are available as a standard console or, for the integration of video surveillance, as a video console. A plug-in for the loading and management of 32 floor plans or images of your home is available for both. The Tecnoalarm control units manage access to the system's functions through codes, transponders/RFID cards, wireless keys and finger prints. The programs can also be managed by the app myTecnoalarm.

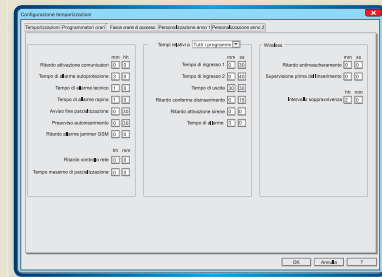




Time configuration

In order to offer the maximum versatility it is possible to program all the time parameters independently for each of the programs. Access to the functions can be limited through 8 access periods and their activation can be triggered by 32 timers and 8 cyclic timers. The calendar for the management of the automatic functions of the system can be either quadrennial or perpetual.

PROGRAM-SPECIFIC TIME SETTINGS



AUTOMATIC FUNCTIONS

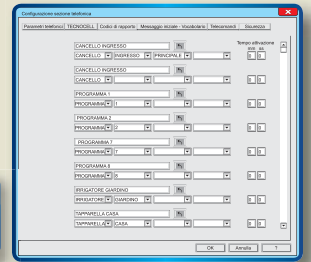
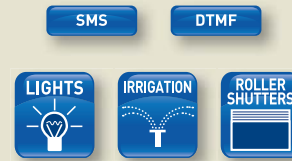
- ACCESS PERIODS 8
- TIMERS 32
- CYCLIC TIMERS 8
- CALENDAR 4Y/∞



Interaction

The system provides 16 remote controls which allow the user to interact with the system through telephone calls or SMS messages. The remote controls are customizable and permit the management of the system's functions as well as the interaction with external devices such as the heating, air-conditioning, lighting installation etc.

REMOTE CONTROLS 16

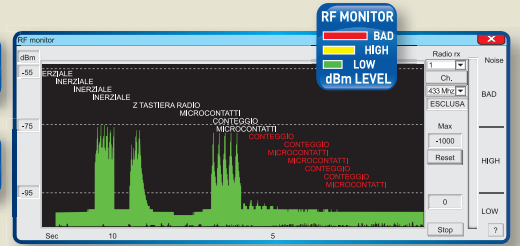


ASYNC@WL wireless expansion

The wireless expansion modules using the protocol ASYNC@WL manage a total of 100 wireless keys and 88 detectors. The modules are connected to the serial bus which permits the installation in positions guaranteeing a good signal transmission. The wide product range comprises indoor and outdoor detectors as well as barriers capable of offering the ideal solution for all kinds of protection requirements.

ASYNC@WL

- DETECTORS 88
- WL KEYS 100



SYNC@BWL wireless expansion

The wireless coordinators using the protocol SYNC@BWL permit the management of bidirectional devices. They coordinate and synchronize the bidirectional data communication with the sirens, wireless keys and detectors. The number of siren nodes connected (max. 4) determines the number of key and detector nodes managed by the system. The protocol SYNC@BWL guarantees a high level of security and minimizes the risk of collisions. The RSC® technology, applied to the bidirectional wireless communication, permits remote programming of the functioning parameters of the nodes by PC.

SYNC@BWL

- TX TWO WAY RX
- 433MHz FOUR CHANNELS
- 868MHz FOUR CHANNELS
- AUTOMATIC FREQUENCY CHANNEL TUNING
- AES XTEA ENCRYPTION

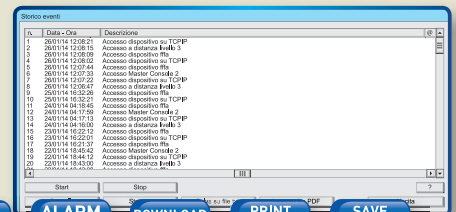
COORDINATOR	1				
SIREN NODE	0	1	2	3	4
DETECTOR AND KEY NODE	133	126	119	112	105



Event log

The event log contains all the events concerning the system's functioning, i.e. the alarms, the diagnostics and the changes of status. A total of 7600 events can be recorded, in reverse chronological order, with indication of date and time. For each event, detailed information is given on the zones, programs and remote controls involved, identified by a number or a description, as well as the telephone calls made. The installer can download the event log at any time using the Tecnoalarm software and extract the necessary information to verify the system's smooth functioning.

EVENT BUFFER CAPACITY 7600





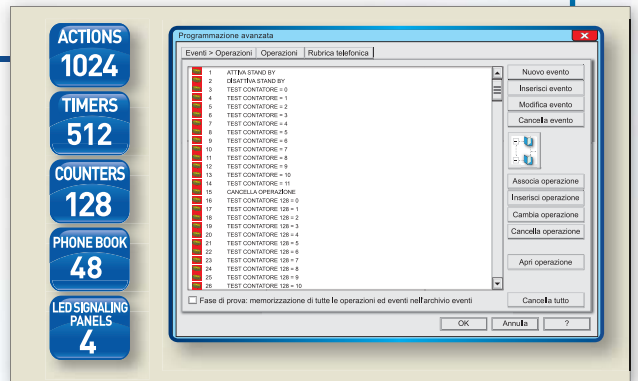
Video surveillance

The system is compatible with video surveillance products of the ranges Videoalarm CCTV, HD and IP. Management of the surveillance cameras is implemented by means of specific video consoles. The consoles UTS V4 and UTS V8 manage respectively 4 or 8 standard CCTV surveillance cameras connected through active or passive Baluns and standard UTP cables. The UTS VHD8 console manages 4 HD surveillance cameras with 2MP resolution, connected through a standard UTP cable. The UTS E console uses IP connections for managing the surveillance cameras. The implementation of the Videoalarm IP products requires the installation of the Ethernet interface ESP LAN on the control panel or the interconnection of the PoE switch TECNOSWITCH. Viewing of the live streams coming from the surveillance cameras can be associated to alarm events, the arming/disarming of programs or the activation/deactivation of remote controls.



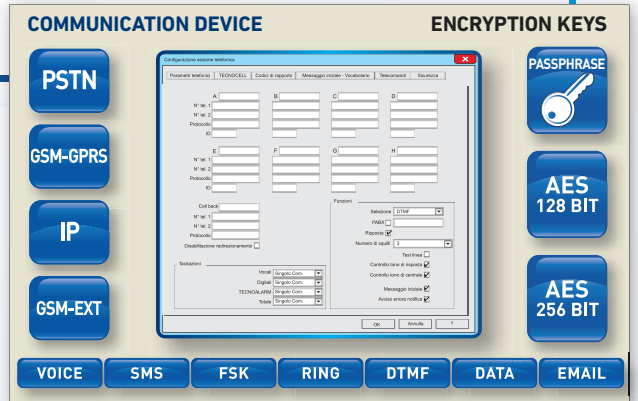
Advanced programming

The advanced programming is a plug-in of the firmware of the system which permits the customization of the system's resources beyond the standard level as well as the integration of home automation functions. The conventional functionality of the inputs, outputs, channels, remote controls etc. is redefined through a series of actions, associated to the events. Expansion modules with relay outputs can be connected via serial bus to the system. The possibility of cloning their address allows to control different devices installed throughout the installation by excitation of only one relay.



Alarm notification vectors

The integrated telephone interface provides 8 telephone channels to notify the 297 transmittable events to the users and the CMS. The on board PSTN telephone interface can be integrated by an internal GSM-GPRS interface and/or an internal Ethernet interface. The telephone vectors, depending on their characteristics, use several protocols, also encrypted, to communicate in an appropriate and safe way with the user.



VECTORS										
Vectors	Device	TCS	DDNS	MAIL	APP	RDV®	SMS	Remote controls	Remote management	Monitoring
PSTN	On board					✓		✓	TECNOMODEM	✓
GSM-GPRS*	ESP GSM-GPRS					✓	✓	✓	TCP/IP	✓
	ESP GSM-GPRS 3G	✓			via TCS	✓	✓	✓	TCP/IP	✓
	ESP GSM LINK TECNOCELL 3	✓			via TCS	✓	✓	✓	TCP/IP	✓
GSM-EXT*	TECNOCELL 3								TECNOMODEM	✓
IP*	ESP LAN	✓	✓	✓	✓				TCP/IP	✓

* Optional vector

		Autonomy			
		Battery: 12V/17Ah			
TP8-88 EN		Autonomy required	CPU Self consumption	Recharge current	Load current
Security grade 2	Non-remotely managed system	12 hours	150mA max.	850mA*	1100mA
Security grade 3	Remotely managed system	30 hours	150mA max.	850mA*	250mA

* Charging time: approx. 20 hours - Required charging time: security grade 3 - 80% in 24 hours, security grade 2 - 80% in 72 hours

Tecnoalarm telematic services



The system integrates the necessary functions for the automatic management of the Tecnoalarm telematic services: DDNS TECNOALARM, SNTP and MAIL SERVER TECNOALARM. These services are managed automatically by a dedicated server and have the aim to simplify and protect the management of the connection of the systems to the Ethernet.



DDNS TECNOALARM

The DDNS TECNOALARM service, in order to be able to reach the control panel at any time, automatically records the name and the IP address of the control panel on the Tecnoalarm server. Whenever the control panel (Client) registers that its IP address has changed, it automatically communicates the new address to the server which updates the registered IP address and transmits the information to the DNS servers on the internet.



TECNOALARM CONNECT SERVICE

TCS is a platform that puts the Tecnoalarm systems into communication via internet with the software applications made for both, technical staff and final customers. TCS arranges the transfer of push notifications towards the app myTecnoalarm. For technical management, TCS uses direct addressing to route the Tecnoalarm software towards the alarm system.



MAIL SERVER TECNOALARM

The system is equipped with a Mailer Client for the transmission of emails. The Mail Server Tecnoalarm provides a hard-programmed account for the burglar alarm system, by which it transmits the emails received from the system to a total of 8 recipients. The emails contain the time of occurrence of the events as well as the system status.



SNTP

The SNTP service allows the control panel to synchronize the internal clock with an NTP server which uses the universal coordinated time (UTC).



myTecnoalarm

The app for iPhone and Android allows to interact with the Tecnoalarm burglar alarm systems in a natural and intuitive way. The user can manage the system's programs and remote controls, check their status and query the stored events.

Thanks to the new telematic service TCS, the app myTecnoalarm can receive push notifications from the controlled alarm system.

The communication between the app and the system is established in real time on demand.

It is protected by the use of an encrypted protocol and two security parameters, i.e. a passphrase and an access code.



Management of the programs

Icons simplify the identification of the programs and the program status check. Arming, disarming and partset becomes rapid and intuitive.



Cameras

The menu provides easy and effective interaction with the Videoalarm IP cameras guaranteeing the most complete synergy of detection and video surveillance.



Management of the remote controls

The app permits an easy and intuitive management of the home automation.



Zones

The menu allows to check the status of the protected zones and exclude zones in a simple and fast way.



Event log

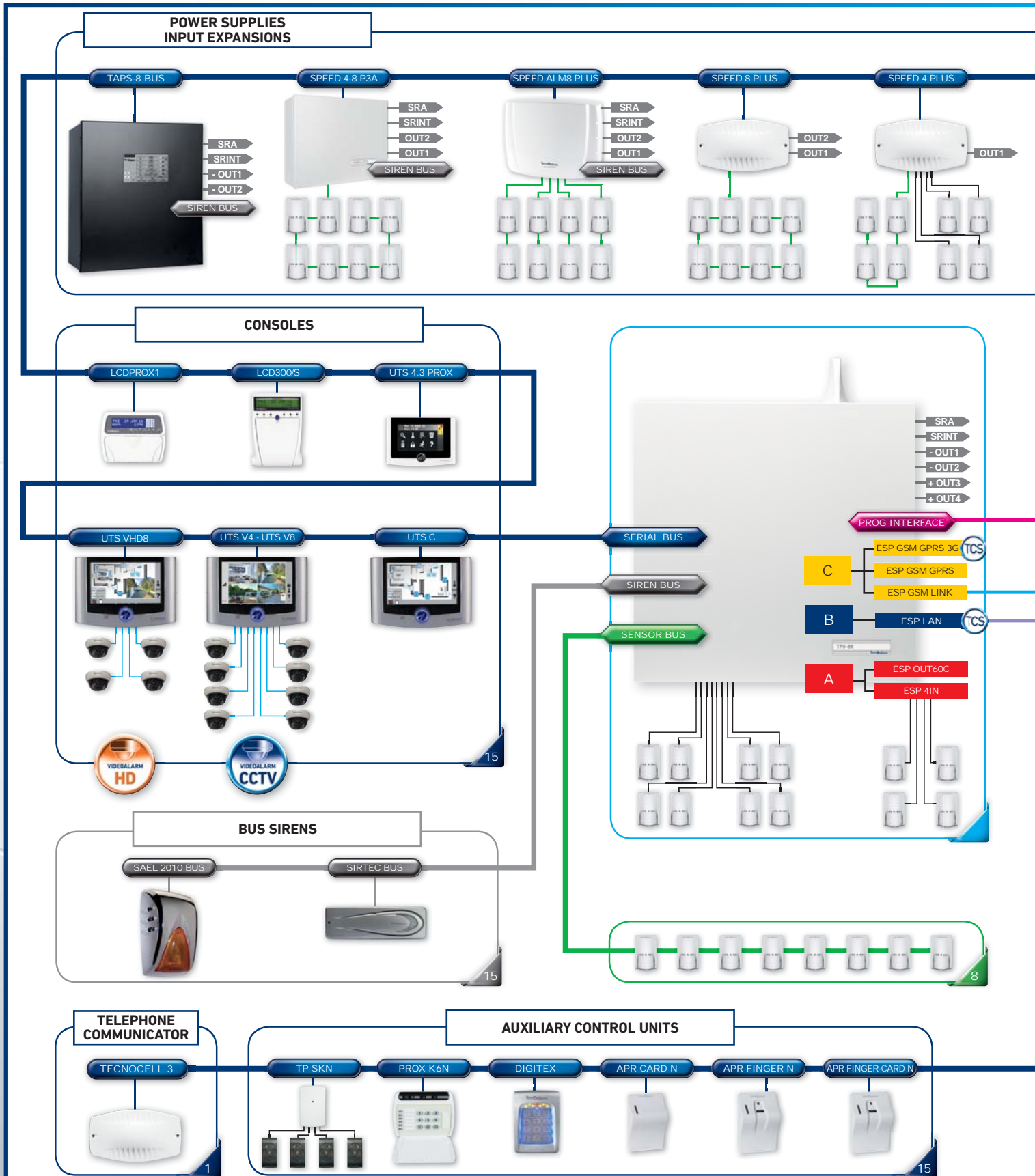
The user can download the event log of the system and scroll the events.



Settings

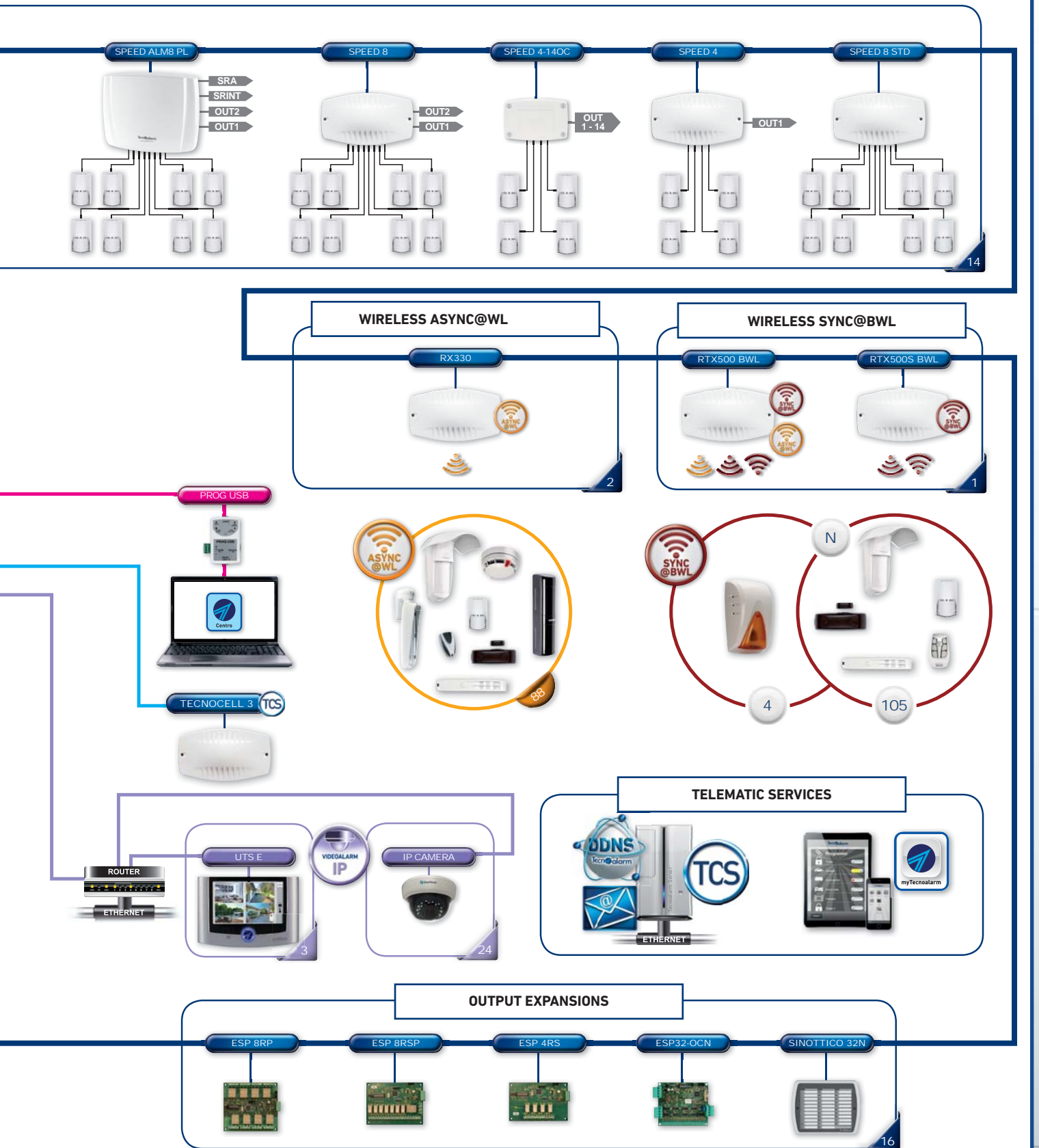
This menu allows the user to customize the icons and program an alphanumeric description of the programs and remote controls.

	Cameras		4		Cameras		4	Viewing			
							8	1	1 2 3 4	1 2 3 4	
	Cameras		24		Recording	8	Viewing				
							1	1 2 3 4	1 2 3 4		

















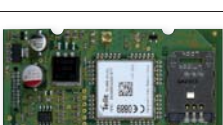







INPUTS	CPU	ESP 4IN	SPEED 8 STD	SPEED 4	SPEED 4-140C	SPEED 8	SPEED ALM8 PL	SPEED 4 PLUS	SPEED 8 PLUS	SPEED ALM8 PLUS	SPEED 4-8 P3A
CONVENTIONAL*	8	4	8	4	4	8	8	4	-	-	4**
ZONE BUS	-	-	-	-	-	-	-	-	-	-	-
SENSOR BUS	8	-	-	-	-	-	-	4	8	8	8

*The following contact types can be programmed: NC (normally closed), NO (normally open), BIL (end-of-line resistor), B24 (double end-of-line resistor). The following filters can be programmed: time, pulse count or inertia.
** The 4 conventional inputs are only available as an alternative to 4 Sensor Bus inputs (max. 8 inputs managed)

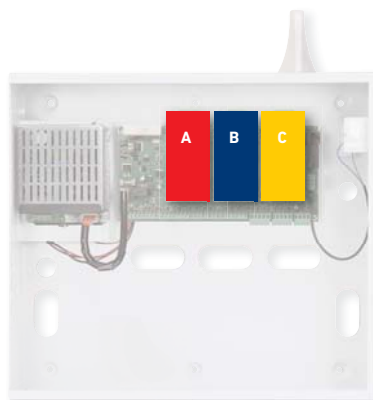


N Number of SYNC@BWL nodes managed by RTX500S BWL and RTX500 BWL. The number depends on the number of connected sirens.

Internal expansions and interfaces

<p>ESP 4IN</p>	 Approved for certified systems			
	<p>Mounting position A B C</p> <p>Expansion module with 4 parallel inputs for the connection of conventional detectors and Zone Bus detectors.</p> <p>Item no. F127ESP4IN</p>			
<p>ESP OUT60C</p>	 Approved for certified systems			
	<p>Mounting position A B C</p> <p>Expansion module with 6 open-collector outputs which can be freely associated to the logic outputs of the system.</p> <p>Item no. F127ESP0UT60C</p>			
<p>ESP LAN</p>	 Approved for certified systems			
	<p>Mounting position A B C</p> <p>Ethernet-Interface The interface implements the IP vector and permits remote management with TCP/IP.</p> <p>Item no. F127ESPLAN</p>			
<p>ESP GSM-GPRS</p>	 Approved for certified systems			
	<p>Mounting position A B C</p> <p>Interface for the connection of the control panel with the GSM or GSM-GPRS network The interface allows to use the GSM or 2G mobile telephone network as communication vector.</p> <p>Item no. F127ESP GSMGPRS</p>			
<p>ESP GSM-GPRS 3G</p>	 Approved for certified systems			
	<p>Mounting position A B C</p> <p>Interface for the connection of the control panel to the GSM or GSM-GPRS network The interface allows to use the GSM, 2G or 3G mobile telephone network as a communication vector. It is fit for the use with the remote management and TCP/IP software.</p> <p>Item no. F127ESP GSMGPRS3</p>			
<p>ESP GSM LINK</p>				
	<p>Mounting position A B C</p> <p>Interface for the connection of the TECNOCELL 3 telephone communicator via the serial bus RS422 The TECNOCELL 3 will be used in the internal GSM mode.</p> <p>Item no. F127ESP G SMLINK</p>			

Mounting positions





Performance level

During the drafting of the project of a burglar alarm system, it is necessary to thoroughly analyze the risks such as the location of the installation, the environmental risk, the possible interferences, the values to be protected and the security requirements of the customer.

According to the assessed risks, the European standards define up to 4 performance levels, and for each of them the compulsory protection facilities.

Protection level

The standards also define **three protection levels**:

- First level** Protection of the sensible areas in the indoors (bedroom, living room etc.)
- Second level** Outdoor protection of the outside of the building (doors and windows)
- Third level** Perimeter protection of the estate (boundary wall or fence)

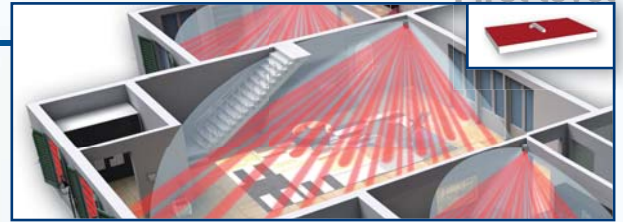
The three levels of protection



TWINTEC BUS

Indoor protection through dual technology (passive infrared + microwave)

A sophisticated digital processing of the detected signals and the programmable detection logic (AD/OR/WALK), which can be combined with the RDV® function, allows a positive verification of the alarm. The TWINTEC MASK BUS model also provides an antimasking control.



First level



DUALRED BUS

Protection of the in-and-out-openings

The detector is composed of a double passive infrared element and an integrated magnetic contact. The technologies can be analyzed in combination or singularly (detection logic AND/OR). The detector also provides an antimasking control.



Second level



WINBEAM/S - DOORBEAM/S

Protection of the in-and-out-openings through active infrared barriers

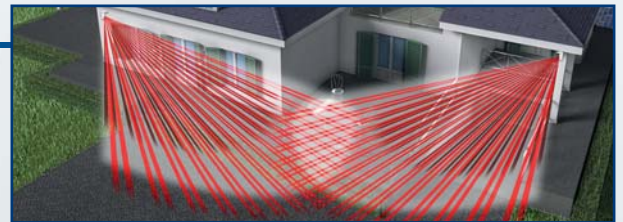
The barriers have been developed for the installation in protected outdoor areas and are resistant to mechanical stress and weather. A sophisticated digital synchronism protects them against undesired reflections and other interferences.



GLOBAL SPACE BUS

Wide angle protection for outdoor use

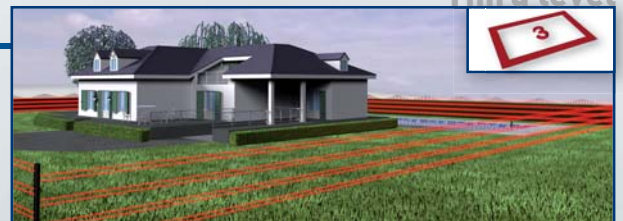
The detector features a multi-point technology: triple infrared and microwave, providing a very tight protection, made of 43 infrared beams distributed on 5 levels, combined with the microwave beam. The programmable AND detection logic permits the adaptation of the detector's functioning to the characteristics of the area to be protected.



BEAMTOWER

Perimeter protection through active infrared barriers

The surprising versatility of the barrier, mounted in self-supporting self-protected aluminum columns, allows to build, in addition to the classic barrier protection with a single side, complex protections of large areas, such as solar parks, with several sides and open and closed perimeter configurations.



Third level









EXPLORER BUS

Perimeter protection through microwave barriers


The barrier projects a beam of electromagnetic waves along the side to protect, which constitutes a sensitive barrier to intrusion attempts. It is perfect for the protection of high security facilities such as industrial plants, solar parks, warehouses, airports. The barrier is highly immune against light sources and RFI/EMI interferences.








Serial expansions

CONSOLES						
	UTS 4.3 PROX	UTS V8	UTS VHD8	UTS C	LCDPROX1	LCD300/S
CODES	✓	✓	✓	✓	✓	✓
TRANSPONDERS	✓				✓	
PROGRAMS	15	16	16	16	8	8
VOICE SYNTHESIS	✓	✓	✓	✓		✓
SCREEN	TFT 4,3" capacitive touch screen	TFT 7" capacitive touch screen	TFT 7" capacitive touch screen	TFT 7" capacitive touch screen	LCD graphic display	LCD 2x16 characters
FLOOR PLANS		Optional*	Optional*	Optional*		
USB PORT		✓	✓	✓		
VIDEO INPUTS		8	4			
ITEM NO.	F127UTS43P	F127UTSV8	F127UTSV8HD	F127UTSC	F127LCDPROX1	F127LCD300S






* Optional software plug-in for the management of 32 floor plans






BUS SIRENS				GSM 3G TELEPHONE COMMUNICATOR	
	SIRTEC BUS	SAEL 2010 BUS	SAEL 2010PRO BUS		TECNOCELL 3
PROGRAMS	16	16	16	CONNECTION INTERNAL GSM MODE	RS422 
ALARM MODES	Programmable	Programmable	Programmable	CONNECTION EXTERNAL GSM MODE	RS485
ANTI-FOAM		✓	✓	CASING	ABS
ANTI-DRILLING			✓	ITEM NO.	F104TECNOCELL3
CASING	ABS	ASA	ASA + AL		
ITEM NO.	F105SIRTECBUS	F105S2010BUSBI	F105S2010PBUSAL		

INPUT EXPANSIONS					
	TAPS-8 BUS	SPEED 4-8 P3A	SPEED ALM8 PLUS	SPEED 8 PLUS	SPEED 4 PLUS
POWER SUPPLY	8A	3A	1.8A		
INPUTS		4 conventional/ Zone Bus + 8 Bus	8 Bus	8 Bus	4 conventional/ Zone Bus + 4 Bus
OUTPUTS	4	4	4	2	1
SENSOR BUS		1 port	4 ports	1 port	1 port
SIREN BUS	1 port	1 port	1 port		
CASING	Metal	Metal	ABS	Optional	Optional
ITEM NO.	F107TAPS-8BUS	F101SPEED48P3A	F101SPEALM8PLUS	F101SPEED8PLUS	F101SPEED4PLUS

AUXILIARY CONTROL UNITS						
	APR FINGER-CARD N	APR FINGER N	APR CARD N	DIGITEX	PROX K6N	TP SKN
FINGER PRINTS	✓	✓				
RFID	✓		✓			
TRANSPONDERS					✓	✓
CODE				✓		
PROGRAMS	3	3	3	4	6	3
MEMORY	On board (96 finger prints)	On board (96 finger prints)				
ITEM NO.	F103APRFINCARBN	F103APRFINN	F103APRCARDNN	F103DIGITEX	F127PROXK6N	F127TP-SKN

WIRELESS EXPANSIONS			
	RX330	RTX500 BWL	RTX500S BWL
FUNCTION	Receiver	Coordinator	Coordinator
PROTOCOLS	ASYN@WL	SYN@BWL/ASYN@WL	SYN@BWL
FREQUENCY	433MHz/868MHz 1 channel	433MHz/868MHz 16 channels	433MHz/868MHz 4 channels
ITEM NO.	F102RX330	F102RTX500	F102RTX500S

OUTPUT EXPANSIONS					
	ESP 8RP	ESP 8RSP	ESP 4RS	ESP32-OCN	SINOTTICO 32N
OUTPUTS	8x 4A relays	7x 0.3A relays + 1x 4A relay	4x 0.3A relays	32 open collectors	32 programmable LED
CASING	Optional	Optional	Optional	Optional	ABS
ITEM NO.	F127ESP8RP	F127ESP8RSP	F127ESP4RS	F127ESP32OCN	F127SINOTTICON











				
SPEED ALM8 PL	SPEED 8	SPEED 4-140C	SPEED 4	SPEED 8 STD
1.8A				
8 conventional/ Zone Bus	8 conventional/ Zone Bus	4 conventional	4 conventional/ Zone Bus	8 conventional
4	2	14	1	
ABS	Optional	Optional	Optional	Optional
F101SPEEDALM8PL	F101SPEED8	F101SPEED4140C	F101SPEED4	F101SPEED8STD

TP8-88 - Technical and functional specifications

211STR09036

Zones	Total logic zones	88
	CPU hard-wired zones	8 conventional
		8 Sensor Bus
	Total hard-wired zones	88
	Total wireless zones	88
Outputs	CPU outputs	6 programmable
	Sirens	8
System features	RS485 serial bus	3
	Voice synthesis	✓
	Event buffer capacity	7,600 events
Programs and access management	Programs	16
	Codes	202
	Finger prints	96
	Transponders/RFID	120
	Wireless keys	100
Automation	Timers	32
	Access periods	8
	Calendar	Quadrennial or perpetual
	Remote controls	16
	Cyclic timers	8
	Test call with TCP/IP	✓
Telephone section	Channels	8
	PSTN vector	On-board
	GSM-GPRS vector (optional)	ESP GSM-GPRS
	GSM vector (optional)	TECNOCELL 3
	IP vector (optional)	ESP LAN
	Transmittable events	249
	Telephone numbers/ IP addresses	2 per channel (max. 24 digits)
	Call event queue	32
	Protocols	203
Telematic services	DDNS Tecnoalarm	✓
	SNTP	✓
	Mail Server Tecnoalarm	✓
	TCS	✓

Videoalarm	CCTV	✓
	IP	✓
	HD	✓
Serial expansions	Hard-wired input expansions	14
	Wireless expansions	2
	Consoles	15
	Auxiliary control units	15
	Output expansions	16
	GSM telephone communicator	1
	Bus sirens	15
	Wireless sirens	4
	Wireless consoles	4 (ASYN@WL)
Advanced programming	Actions	1,024
	Timers	512
	Counters	128
	Telephone index	48 numbers
	Reserved output expansions	4
Accessory management	App (iPhone + Android)	✓
	Tecno out protocol	Optional
	Printer management	✓
Electrical specifications	Operating voltage	230V AC +/- 10% 50Hz
	CPU board consumption	150mA @ 13.8V DC
	Power supply	6A @ 14.4V DC
	Batteries	2x 12V/18Ah
Physical specifications	Environmental class	II
	Casing	Metal
	Dimensions (L x H x D) (w/o antenna)	455 x 445 x 115mm
	Antenna height	90mm
	Weight (w/o battery)	7kg
	Operating temperature	-10°C...+55°C
	Humidity (non-condensing)	93%
Conformity	Standards	EN 50131-1 EN 50131-3 EN 50136-2-1
	Security grade	3
	Notified body	IMQ

MODELS		         								
Model	Item no.									
TP8-88	F101T88-UK	✓	Optional	Optional	Optional	Optional	6A	✓		
TP8-88 EN	F101T88EN-UK	Security grade 3	✓	Optional	Optional	Optional	Optional	6A	✓	

The product features can be subject to change without notice.