

TOMST[®]



PES[®]

more than "just" a Guard Tour device!

PES profi 41121

PES® – Portable Electronic Sensor

The system PES®, system of Portable Electronic Sensors, proves its abilities everywhere, where there is need to control and monitor movement of persons and objects in relation to time and place. Its main domain is the guard-tour control and employee patrol evidence, but the system PES® comes in use also in many other areas.

Key features of the PES® sensors:

- Ergonomic design – with their size (Ø18x87 mm) and weight (49 g) the PES® sensors represent a clever, handy solution, easy to hold and use by the employees.
- The PES® sensors are the most robust employee-monitoring devices in the world. They are equipped with unique ANTI-VANDAL® Technology, a self-protective system that can even recognize WHO tried to damage the sensor and HOW!
- Based on the respected iButton® technology of the company MAXIM Integrated Products, Inc.
- Wide range of possible use – during the years of its existence, the PES® system has proved its effectiveness and qualities in a range of different areas and applications, e.g. guard-tour control, postal services, health care services, cleaning services, bus inspectors and many others.
- Extensive product range – in order to satisfy different needs of customers, the TOMST® company offers three types of the PES® sensors differing in some of the following parameters:



PES mini

reading capacity: 200 events,
warranty: 2 years / 100 ANTI-VANDAL® points

PES forte

reading capacity: 1 000 events,
warranty: 2 years / 500 ANTI-VANDAL® points

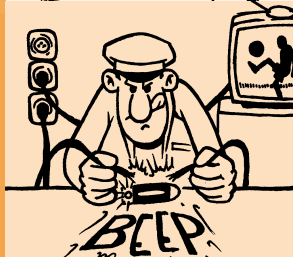
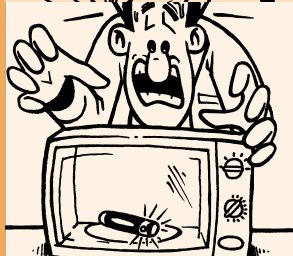
PES profi

reading capacity: max. 14 000 events
depending on the configuration of the sensor
warranty: 5 years / 1 000 ANTI-VANDAL® points

PES smart

ready to fit your solution





ANTI-VANDAL® Technology

ANTI-VANDAL® Technology is a clever self-protection system that has been invented for the PES® sensors to equip them with higher anti-sabotage protection. The system excels by extreme resistance against various kinds of intentional and unintentional damage, which can be detected and recorded. Thanks to this technology the consequences of attempts to destroy the sensors are minimized.

Most important types of detection and protection:

- **High durability and robust construction.**
- **Waterproof resistance** (IP68).
- **Resistance against high temperatures** and big changes of temperatures (-40°C – $+85^{\circ}\text{C}$).
- **Detects 3 levels of hit intensity:** small, medium and strong hit.
- **Resistance against the microwave radiation.** The system can even detect that the sensors were placed into a microwave oven.
- **Detects an attempt to damage the sens or by over-voltage.** The sensor is able to endure over-voltage up to 265 V and survive portable Tasers up to 200 000 V.
- **Intentional short circuit.** It is able to identify the endeavour to discharge the battery by short-circuiting the sensor probe. After such attempt the sensor stays undamaged and the battery life is not reduced.



PES® Built for Your Solutions

The control PES® system offers a simple and clever solution to record movement of persons or objects. It can be used anywhere, where time and place of the movement must be controlled and documented.

Guard-tour control – the main and the most famous use. The PES® system represents an ideal solution for this sector especially due to the unique ANTI-VANDAL® Technology.

Postal services

Health care

Cleaning services

Inspection activities, revision controls, e.g. environmental inspections, fire & safety inspections, lift inspections, bus inspections and many others... – another area where the PES® system proves its abilities.

The PES® sensors represent universal monitoring devices, which prove to be great tools also in other areas such as: educational system, military services, distribution of goods, container transport monitoring, returnable-packing monitoring etc.

Your own applications – the PES® sensors can be used in a variety of other, individual systems. We are able to provide you the DLL Library for your use and our programmers are ready to adjust the system to your individual needs.



How Does the PES® System Work?

Every PES® sensor has a unique serial number and thanks to this number it can be easily identified by evaluation software. Also every iButton® chip has its unique identification number. The chips can be used for the identification of a person or the identification of a place or an object.

Touching an iButton chip, the sensor reads the identification number of the chip and it also records the information about the time and date of the touch, it serves as a data collector. In addition, all the PES® sensors are equipped with the unique ANTI-VANDAL® Technology, which protects them against possible damage.

The data from the sensor are then downloaded to a PC to evaluation software (e.g. WinKontrol®). The data transfer can be done in three different ways:

directly – placing the sensor into the TMD USB download adapter;

indirectly – all data from the sensor are downloaded to a data chip held by a supervisor. Then the data will be transferred from the data chip through the USB adapter to the PC;

remotely – placing the sensor into the D-point, all data from sensor are downloaded to the D-point unit and data will be sent by GSM/GPRS to the server/PC.

The evaluation software WinKontrol® represents a useful tool for analysing the collected data and generating different kinds of reports.



The WinKontrol® Software Licenses:

License STANDARD – the program allows complete work with data and chips. The capacity of the database is 10 employees and 50 checkpoints. License does not allow setting separate passwords to individual users, the program cannot work as server in network.

License PROFESSIONAL – offers unlimited capacity of databases, setting of individual passwords, network operation and also some added functions.



The PES® Hardware Accessories

TMD adapter – via this USB connection you are able to transfer data between the PES® sensors, iButton® chips and a PC, set up new checkpoints and add them to the system. The adapter is also the hardware key for the WinKontrol® software.

Special Events KeyPAD – In order to record different events during the guards' tour, e.g. a door or a window left open, a broken lock or other abnormalities, guards can carry with them special events key pads.

Checkpoint – We use iButton® chips DS 1990R-F5. Each chip contains a unique code installed in the production process, which is then used as the identification of each checkpoint. The chip can be mounted on the wall in different kinds of holders.

Plastic Key ring

Plastic Holder

ANTI-VANDAL® holder – metal safety holders. The chip cannot be removed from this holder without causing a visible damage to the holder.

Data chip – DS1996L-F5, it is a memory chip. It can be used as a portable data collection device similar to a USB flash drive.

D-point, device for semi-on-line data transfer, extends the possibilities of the PES® system. D-point allows automatic data transfer from the PES® sensor, or data chip, using GPRS/GSM, directly to the central database on the server. Thanks to this, you can have the data from the guard tour almost immediately.

D-point contains GSM/GPRS module 900/1800/1900 MHz, downloader of sensors PES and iButton® chips (can also be used for on-line monitoring of the access control). It has backup automatically rechargeable energy source that can last at least 3 days of full operation.

All is enclosed in elegant plastic compact box with IP65 cover.





The image shows three vertical pens standing side-by-side. Each pen has a silver-colored metal cap at the top and bottom. The middle section of each pen is a different color: blue on the left, black in the center, and red on the right. Each colored section has a silver-colored label with text. The blue pen's label says 'PES mini 41321413', the black pen's label says 'PES forte 41221412', and the red pen's label says 'PES profi 41121411'. Each pen has a silver-colored ring at the top with a black cord attached. The pens are standing on a reflective surface.

PES *mini* 41321413

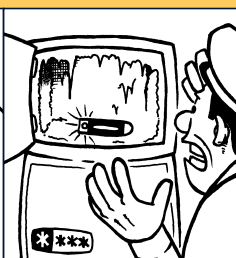
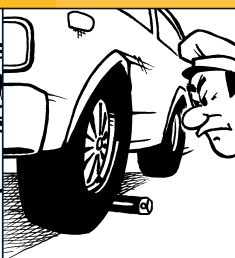
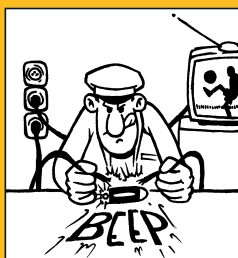
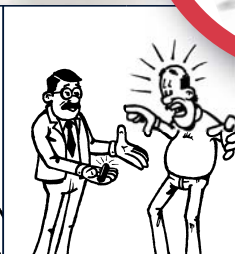
PES *forte* 41221412

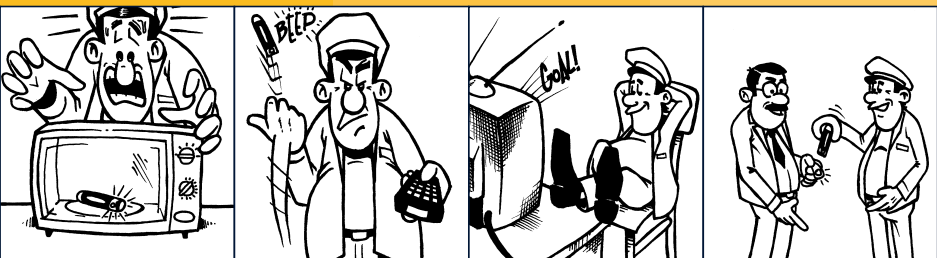
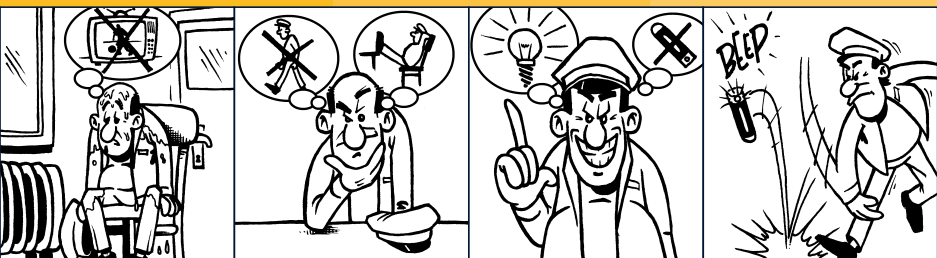
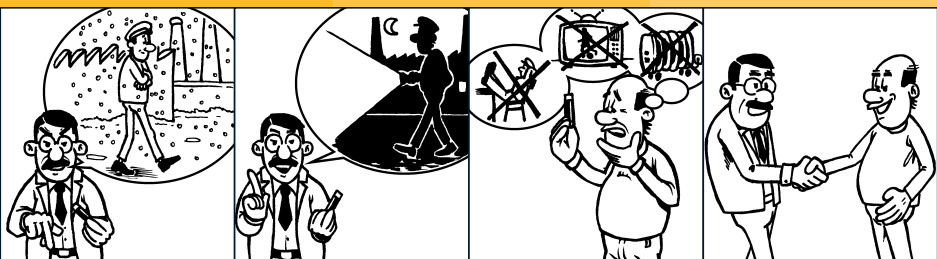
PES *profi* 41121411

The True Story

ANTI-VANDAL®

BLEP







TOMST® – We invent, design, and manufacture electronics

The company TOMST® based in the Czech Republic, EU, has operated on the market since 1995. Its history is closely related to Mr. Tomas Haase, the founder and the Chief Executive of the company.

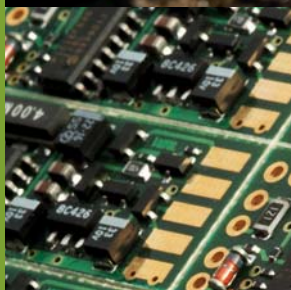
The TOMST® production process concentrates on four principal areas:

Guard-tour control system PES® – the TOMST® flagship product. The system is famous especially with its worldwide-unique technology of detection of attempts to destroy the PES® sensors, the ANTI-VANDAL® Technology.

TMS - TOMST® Measuring System – data loggers for measuring air and soil temperature and soil moisture.

Access control system TLD – a complex solution of access to buildings and attendance control.

Individual solutions – The TOMST® offers the customers development and production of individual control systems and other solutions adjusted to their individual requirements. Do you need special equipment for your own application? The TOMST® company can offer you the development and production of specific electronic equipment, such as different autonomous measurement units, data loggers etc.



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