

### Operation conditions

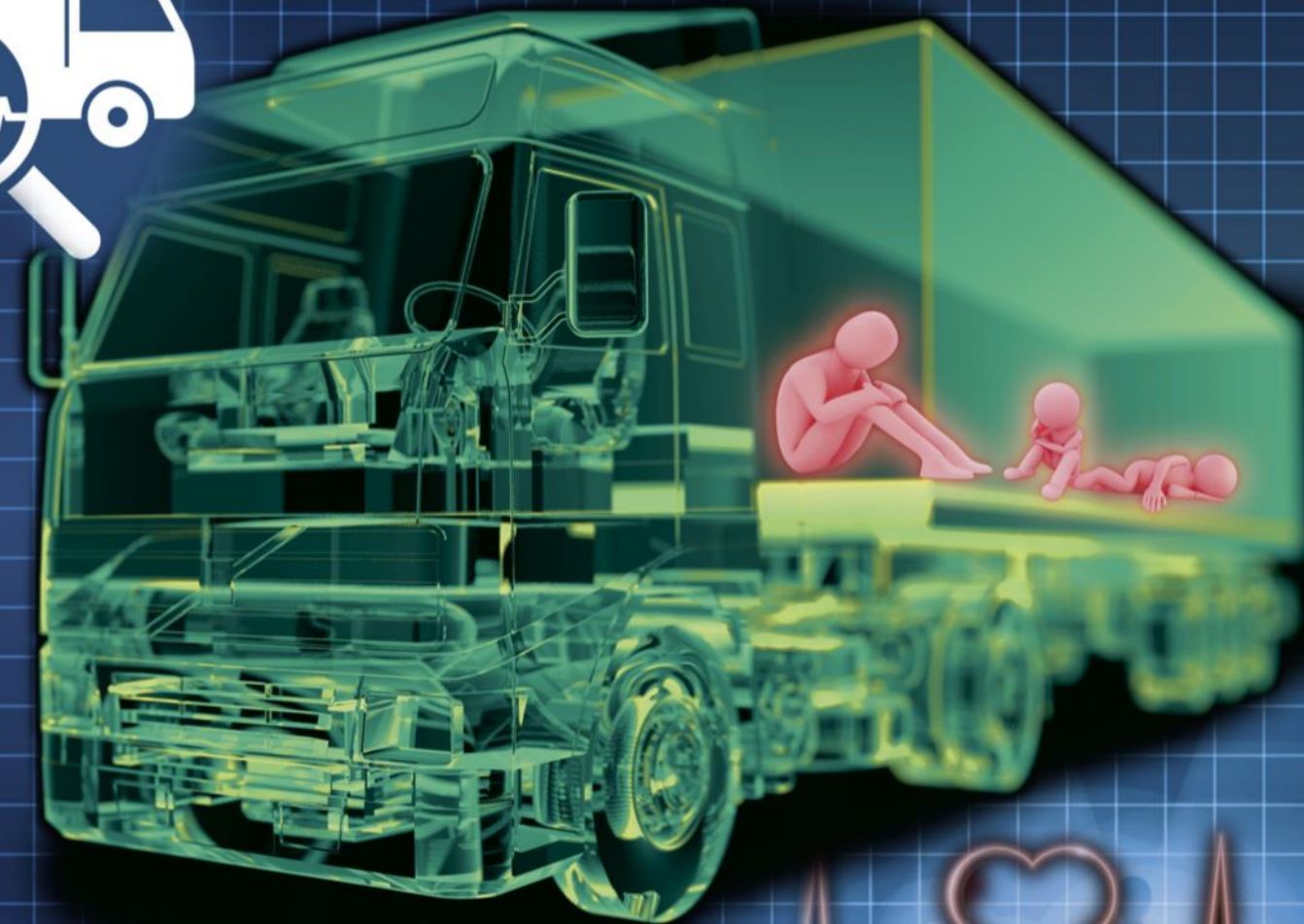
	Portable	Mobile	Stationary
Power supply	110 VAC-240 V/ 50 Hz	110 VAC-240 V/ 50 Hz	110 VAC-240 V/ 50 Hz
Operation temperature	-15 °C to 60° C	-15 °C to 60° C	0 °C to 50° C
Relative humidity	5 to 90% - non condensing	5 to 90% - non condensing	5 to 90% - non condensing
Max. wind speed	35 km/h	35 km/h	40 km/h
Max. ground vibrations	0.4 m/s	0.4 m/s	0.4 m/s
Max. distance between the sensors and PC	50 m	50 m	50 m

### Technical specifications

	Portable	Mobile	Stationary
Dimensions	560 x 455 x 265 mm (L x W x H)	705 x 455 x 515 mm (L x W x H)	Customized
Weight	ca. 19 kg	ca. 40 kg – incl. winches	–
Sensors	Magnetic sensor – 4 pcs. Ground sensor – 1 pc. Low-frequency microphone – 1pc.	Magnetic sensor – 4 pcs. Ground sensor – 1 pc. Low-frequency microphone – 1pc.	Magnetic sensor – 4 pcs. Ground sensor – 1 pc. Low-frequency microphone – 1pc.
Cable winches	–	15 m each – 4 pcs.	15 m each (alternative design) – 4 pcs
Laptop	PANASONIC „Toughbook“ CF19, sturdy robust design with a 10,4” touch screen and docking station	PANASONIC „Toughbook“ CF19, sturdy robust design with a 10,4” touch screen and docking station	Industry panel PC, Intel Pentium 1.4 GHz with a 15” touch screen and docking station
Software	Detection software MDS 4.07 (or later) Windows 7 (or later)	Detection software MDS 4.07 (or later) Windows 7 (or later)	Detection software MDS 4.09 (or later) Windows 7 (or later)

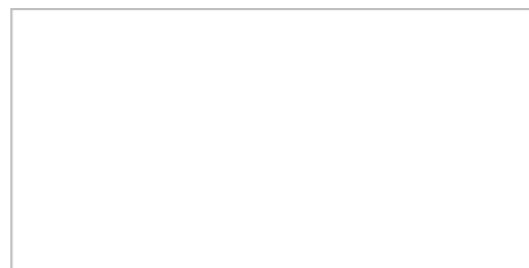
### References

- Switzerland (prisons)
- Belgium (ports)
- Germany (frontier guard service, prisons, investigation institutes)
- Great Britain (Immigration Office)
- Morocco (ports, state police)
- Romania (frontier guard service)
- China (ports, prisons, coast guard)
- Hungary (frontier guard service)
- Croatia (frontier guard service)
- Luxembourg (prisons)
- Moldavia (prisons, frontier guard service)
- Bulgaria (frontier police)
- Slovenia (frontier police)
- Ukraine (prisons)
- FRONTEX – approved by the European Agency for organization of operative cooperation on external borders of the EC member states



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### Partners



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## MDS - Human Presence Detector

### Detector of hidden persons in vehicles

MDS - Human Presence Detector is designed to detect persons hidden in vehicle. The system indicates movement by means of extremely sensitive seismic sensors and its subsequently analyzes the obtained data with the use of advanced computer algorithms.

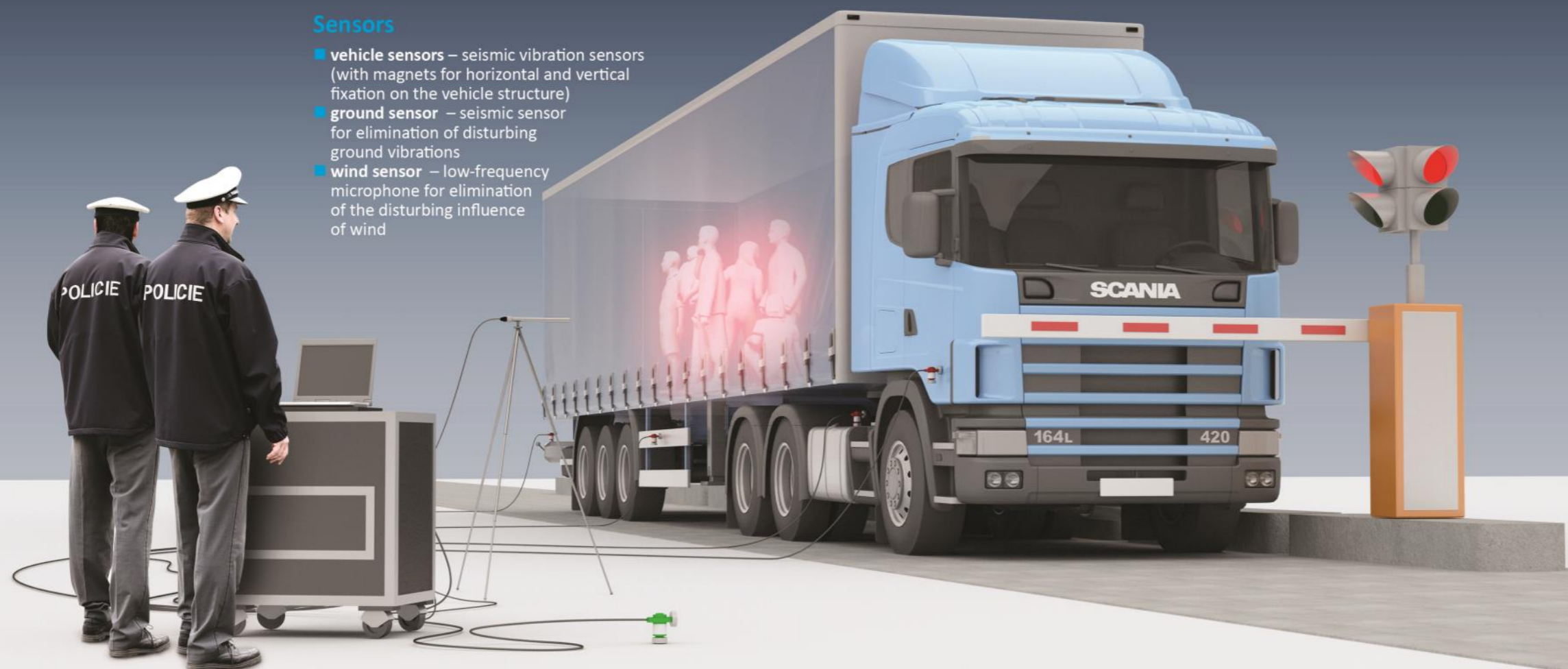
- High detection efficiency
- Easy use
- Inspection efficiency
- Magnets for horizontal and vertical attachment of sensors
- Sensor for elimination of ground vibrations
- Sensor for elimination of climatic conditions
- On-line displaying of signal from sensors
- Indication of unsuitable measurement conditions
- Displaying the course of the presence test of persons
- Minimum space requirements
- Export of measurement results
- Outdoor design of the sensors



# MDS - Human Presence Detector

## Detector of hidden persons in vehicles

Technologies for your safety



### Sensors

- **vehicle sensors** – seismic vibration sensors (with magnets for horizontal and vertical fixation on the vehicle structure)
- **ground sensor** – seismic sensor for elimination of disturbing ground vibrations
- **wind sensor** – low-frequency microphone for elimination of the disturbing influence of wind

### Control unit

- Industrial PC or laptop with a touch screen for easy system control

### Connectors

- Robust connectors for outdoor use with high resistance to damage

### Interconnecting cabling

- Separate outdoor cables with high resistance to damage
- Cables on self-winding drums for easier handling

### Software

- MDS detection software
- Windows 7 or higher

## Basics characteristics

The MDS system detects any movement generated by a hidden person that is in contact with the interior or cargo of the vehicle, including such tiny signals as the heartbeat. Motions of hidden persons and human heartbeat are detected with the use of sensitive sensors attached to the vehicle with strong magnets either in a horizontal or vertical position.

From the sensors data are sent via cables to a computer, where the measured data are subjected to stringent analysis and subsequent evaluation. The measurement time is approx. 30 seconds while the total vehicle check time does not exceed 2 minutes, including application and removal of the sensors.

Fare dodgers, illegal immigrants or terrorists may be transported in

lorries or trucks from one country to another without meeting the legal requirements to enter these countries. Trucks are often sealed or loaded in such a way that renders standard visual check of the cargo space impossible.

Responsible authorities keep fighting against transport of hidden persons. Not all methods, as e.g. measurement of CO2 concentration or X-raying of cargo spaces of trucks are reliable in all cases and can be sometimes circumvented.

MDS (Movement Detection System) is a simple, non-invasive measurement method. It is passive detection that does not have any side effects for the human organism or equipment in its vicinity. MDS is an advanced version of the classical Human Presence

Detector. It is the latest generation of a detector of hidden persons that makes it possible to reveal hidden persons with almost 100% reliability in less than 1 minute.

## Design

Thanks to three design versions vehicles can be checked not only in stable locations as ports and border crossings and entrance gates of sites, but also in the field where checks may move as the smugglers' paths or reloading points change.

### Stationary version

As the stationary version of the MDS system is firmly installed, it is especially suitable for routine checks.

#### Typical applications:

- checks of trucks and cars in prisons
- customs and port checks focusing on illegal immigrants



### Mobile version

In the mobile MDS system all the elements are permanently interconnected and in spite of its mobility the system is ready for immediate use. Its size enables installation in mobile means as police vans or off-road vehicles. Regarding its speed and mobility it is especially suitable for:

#### Typical applications:

- airport and port entrances
- nuclear power plants
- entrance gates of military missions
- other objects of critical infrastructure



### Portable version

The portable MDS system comfortably fits the boot of any car. Individual components of the system can be interconnected very quickly to make the system operable in a very short time. Therefore, the portable system is suitable for:

#### Typical applications:

- border inspections
- detention centres
- nuclear power plants
- ports and airports
- military facilities
- other high-risk areas

