

# MONITORING SYSTEM SeeCheck



„SeeCheck“ is an imaging system meant especially for vehicle surroundings monitoring or for vehicle crew protection outside the vehicle at day or at night.

The system is equipped with a positioning sensor unit with integrated imaging modules. The positioning sensor unit allows a fluent azimuth guiding to ensure continual tracking around the vehicle. The sensor part of the positioning unit consists of the day and night surveillance division. An uncooled thermovision module with a fixed focus is used in the night division. In the day division, there is used a high resolution of 650 TV lines CCD module, again with a fixed focus.

The imaging system can be controlled via a controlling unit with installed user SW, which displays image information to selected monitors and allows following options of control:

- Control of the display unit via function buttons or a touchscreen
- Display of the image information from the selected module
- Control of the positioning unit
- Switching of the image from individual modules to display monitors
- Parameters settings of IR modules (brightness, contrast, colour pallets, digital zoom)
- Creation of „scanning“ modes
- Fusion of the IR a CCD image
- Addition of digital image stabilization for the system usage during a ride

## TECHNICAL SPECIFICATIONS

### IR Module

Image sensor	Uncooled Micro bolometer
FPA format	640 x 480
Spectral band	7.5-13.5 $\mu\text{m}$
Sensitivity	<50 mK at f/1.0
Analog output	PAL/NTSC, 1.0 V (p-p), 75 $\Omega$
HFOV	69°
Interface	RS232

### CCD Module

Image sensor	1/3" colour CCD
Resolution	976 x 582 PAL, (976 x 494) NTSC
Number of lines	650 TV lines
Sensitivity	0.005 lx při F1.2
Analog output	1.0 V (p-p), 75 $\Omega$

### Pan device

Movement range	0° - 350°
Rotation speed	0 - 90°/s
Interface	RS232
Voltage	24 V DC (18 V – 30 V)
Power consumption	25 W (average)
Operating temperature	-32°C to +55°C
Storage temperature	-35°C to +60°C
Environmental protection	IP66
Weight	2,5 kg
Dimensions (w x d x h)	125 x 169 x 123 mm
Complies with	EN 61000, MIL-STD-810, MIL-STD-461