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INFRARED - DAYLIGHT - SEARCHLIGHT

SECurus System

Multi purpose electrooptical sensor station

The NORBIT Aptomar SECurus system is a high performance multi purpose camera system, tailored for the maritime environment. The SECurus offers functionality and performance normally only found in military graded camera systems, all available in a COTS ITAR-free package.

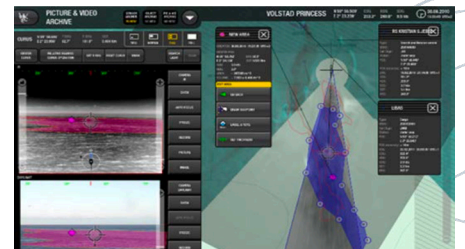
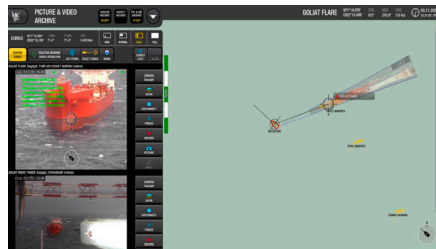
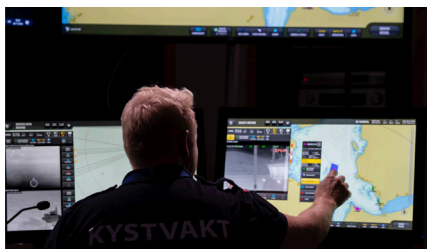
KEY FUNCTIONALITY

- Stabilization in 6 degrees of freedom
- High resolution, long range thermal and daylight sensors
- Target detection and tracking
- Powerful xenon searchlight
- Augmented reality; merging of sensor data and map information for enhanced decision support
- Rugged design, easy service and maintenance
- Fully integrated in the multi purpose SeaCOP Situational Awareness and Decision Support operator interface

The SECurus range of EO sensor stations are all fully integrated with the SeaCOP sensor integration and decision support platform. SeaCOP is an intuitive and easy-to-use interface that provides enhanced situational awareness and a common operational picture (COP). The SeaCOP combines powerful process and decision support tools, integrating sensors and sensor platforms such as AIS, cameras, radars, sonars, drones and satellite data and more. The sensors and data sources are all integrated, processed and fused together in real-time, giving the operator an unmatched situational awareness. For the operator this means an early warning, the right information to take appropriate decisions and initiate efficient counter measures.



OPERATOR INTERFACE - SeaCOP



TECHNICAL SPECIFICATIONS

Specifications subject to change without any further notice.

THERMAL CAMERA	IR275	IR430
Focal Length	18mm to 275mm	18mm to 430mm
Wide Field of View	29.8°(H) x 24.1°(V)	29.8°(H) x 24.1°(V)
Narrow Field of View	2°(H) x 1.6°(V)	1.28°(H) x 1.02°(V)
Video Refresh Rate	50 Hz	50 Hz
Optical Zoom	15,3X	23,9X
Digital Zoom	2x (max 30,6x with optical zoom)	2x (max 47,8x with optical zoom)
Protection	IP66 (Camera core enclosed in nitrogen pressurized bottle)	
DETECTOR		
Detector Type	Cooled MCT, Snapshot FPA	Cooled MCT, Snapshot FPA
Spectral Range	Band 2 - 3.7µm to 4.8µm	Band 2 - 3.7µm to 4.8µm
Matrix Size / Pitch	640 x 512 pixels / 15µm	640 x 512 pixels / 15µm
Optical Aperture	f/5.5 (f/4 available)	f/5.5 (f/4 available)
Cooling Engine	Rotary Sterling	Rotary Sterling
Cooldown time @ 20°C	< 6 min	< 6 min
DV CAMERA		
Detector Type	1/2.8-type Exmor R CMOS Sensor (2130K pixels)	
Lines Of Resolution	1920x1080, 1280x720	
Minimum Illumination (50%, High Sens Mode On)	ICR-Off Mode : 0.01 lx (Shutter Speed : 1/30 s), 0.0013 lx (1/4 s or 1/3 s) ICR-On mode : 0.0015 lx (Shutter Speed : 1/30 s), 0.0008 lx (1/4 s Or 1/3 s, 30%) ICR-On Mode : 0.0015 lx (Shutter Speed : 1/30 s), 0.0008 lx (1/4 s Or 1/3 s, 30%)	
Minimum Illumination (50%, High Sens Mode Off)	ICR-Off Mode : 0.1 lx (Shutter Speed : 1/30 s), 0.013 lx (1/4 s Or 1/3 s) ICR-On mode : 0.006 lx (Shutter Speed : 1/30 s)	
Optical Zoom	30x optical zoom	
Digital Zoom	2x(max 60x with optical zoom)	
Focal Length	4.3 mm To 129 mm	
Optical Aperture	f1.6 To f4.7	
Wide Field Of View	63.7° (H)	
Narrow Field Of View	2.3° (H)	
Protection	IP66 (Camera core enclosed in nitrogen pressurized bottle)	
SEARCHLIGHT		
Type, Lumens, Beam°	500W Xenon HID, range 5300m (narrow beam), beam adjustments 0.65° to 3.0°	
SYSTEM SPECIFICATIONS		
Gyro Stabilized	3-axis stabilization of 6 DOF (roll, pitch, yaw, surge, sway and heave)	
Target Tracking	Radar and AIS targets	
Pan/Tilt Adjustment Range	Azimuth coverage: ± 200° Elevation coverage: - 90° to + 80°	
Power Requirement	110V- 240V 50Hz/60Hz (Preferably from UPS)	
Power Consumption	Max 2KW	
ENVIRONMENTAL		
Operating Temperature Range	-20°C to 55°C	
Automatic Window Defrost	Heating elements	
Protection	IP56	
Lens weather resistance	Hydrofobic anti-rain and anti-fog coated lence glasses	
PHYSICAL DIMENSIONS AND WEIGHT		
Weight Size	Size: 1052 x 1070 x 686 [mm] Weight: 180 (kg)	
CLEAR WEATHER RANGE PERFORMANCE (D/R/I)	IR275	IR430
Detect Human Sized Target	9,2km / 2,9km /1,2km	13,1 km / 4,6km / 2,3km
NATO Target 2.3m x 2.3m	15,5km / 6km / 3,3 km	19,1km / 9,0km / 5,5km