

# ELECTRO-OPTICAL SURVEILLANCE SYSTEM



EOSS-100/U



EOSS-100/S



EOSS-300



EOSS-300/U



EOSS-450



EOSS-450/RF



15" LCD



## GENERAL DESCRIPTION

The GEM elettronica EOSS series matches surveillance or other shore-based system requirements of day/night optical surveillance. Each system includes the stabilized turret hosting advanced optronic TV and IR cameras for h 24 no-stop operations. The optional videotracker unit is available to accomodate closed-loop optical tracking. Interface with external radar for target designation is available on request. Depending on customers' requirements, the suitable configuration can be easily identified.

## FEATURES

- h 24 passive detection, designation, identification and tracking of surface and low-speed air targets
- Fully automatic search for reducing operator workload in target detection and acquisition tasks
- Stabilization against mast/infrastructure motion
- Can be remotely driven

## APPLICATIONS

- Vessel Traffic System (VTS), Vessel Traffic Management & Information Systems (VTMIS)
- Coastal Surveillance & Security
- h 24 optical functions for search and surveillance
- Homeland Security

	Turret aspect and type of display	Optronic turret * (see note)	Stop system	TV camera: Type of detector	450 TVL color camera: Field of view	TV camera: lens and zoom ratio	Environmental conditions
EOSS-100/U	T-shape, 15" LCD	a) 2 MEMS gyros b) $\pm 40^\circ$ c) Nx360° d) 80°/s e) 0.4 mrad	Brakes				-10°C:+55°C ext 0°C:+50°C int
EOSS-100/S							
EOSS-300	Ball-shape, 19" LCD	a) 2 MEMS gyros b) $\pm 40^\circ$ c) Nx360° d) > 80°/s e) 0.2 mrad (1 sigma)	Not needed due to the physical shape	1/4" CCD	HFOV: Wide 57° Narr. 1.7°	3.4:122 mm 36x F1.6:F4.5	
EOSS-300/U	Ball-shape, 15" LCD	a) 2 FOG gyros b) Nx360° c) Nx360° d) 100°/s e) 0.05mrad					
EOSS-450							
EOSS-450/RF				1/3" CCD	HFOV: Wide 46° Narr. 1.6°	5.5:187 mm 34x F1.8	

Note: Optronic turret: a) number of gyroscope - b) elevation sector - c) azimuth sector - d) slewing rate - e) stabilization accuracy

## SUPPLY COMPOSITION

- Electro-Optical stabilized Turret with TV and cooled IR cameras
- Rugged Motion Control Unit
- Installation kit
- Technical manual of the system in English language
- Certificate of conformance
- Packing list

## OPTIONS

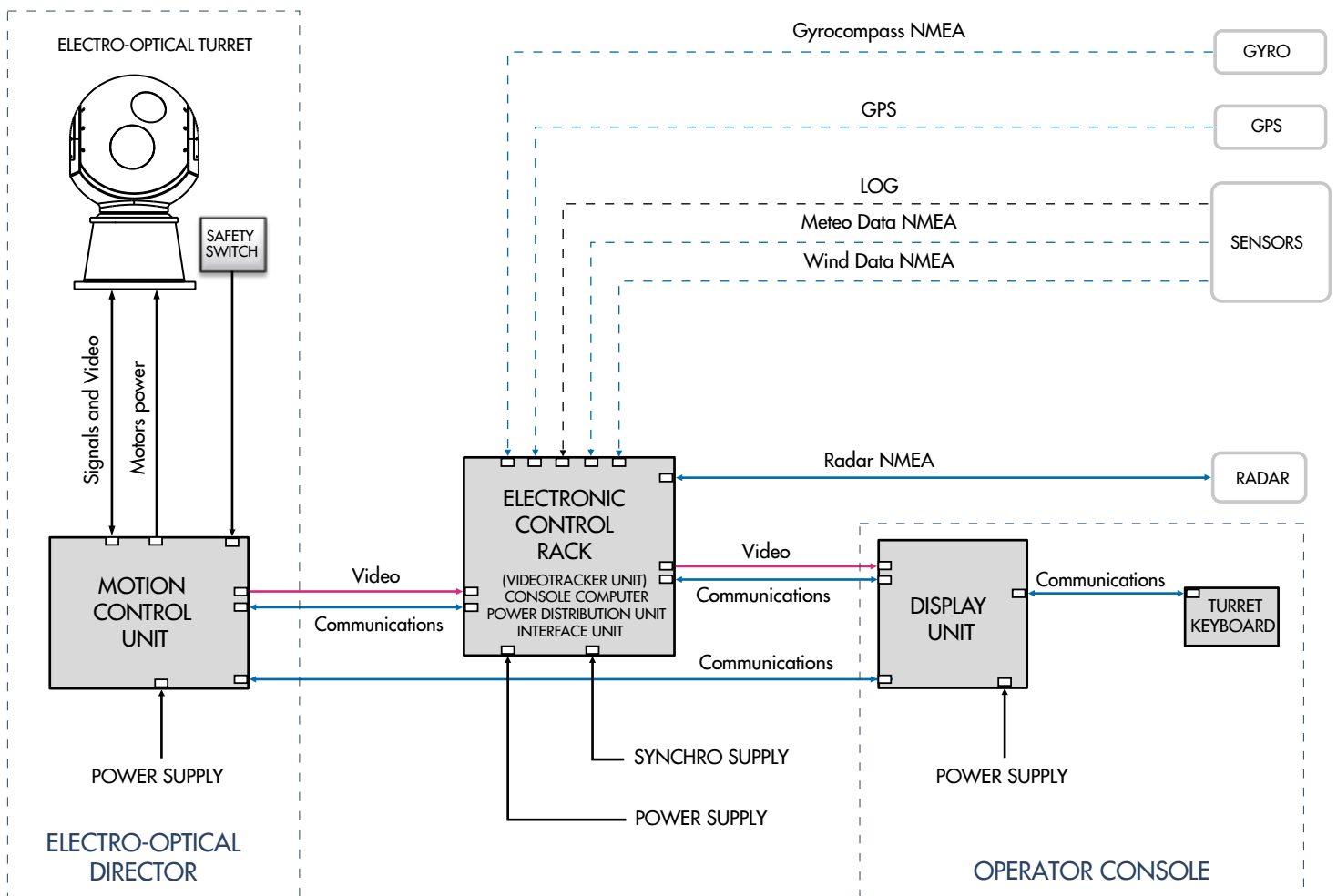
- Separate videotracker unit VTU-110 for closed-loop optronic tracking
- Depending on installation requirements, cable lengths are delivered in accordance with Buyer's instructions
- Customization versus specific requirements can be evaluated in terms of cost-effectiveness
- Operator desk consisting of:
  - display unit
  - Keyboard/joystick desk unit



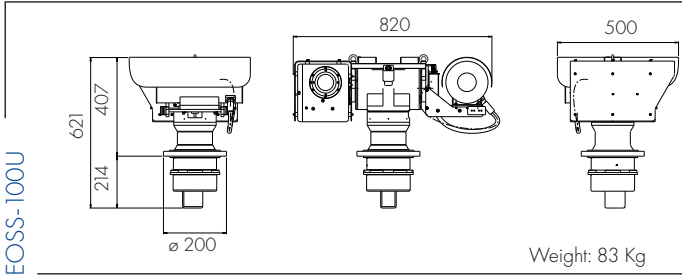
	IR Detector, spectral bandwidth and resolution	IR camera HFOV	NETD	Laser Range Finder * (see note)	Video Tracker	Power absorption	Interfaces to the external world
EOSS-100/U	Uncooled, VOx 8-14 micron 320x240	Wide 5.7° Narr. 2.8°	< 50mk	Available on request	Option	at 220 Vac, 50Hz, one phase, 1000 VA peak	RS-422
EOSS-100/S	Cooled, InSb 3-5 micron 320x240	Wide 11° Narr. 2.2°	< 30mk				
EOSS-300		Wide 9° Narr. 3°	< 35mk				
EOSS-300/U	Uncooled Vox 8 - 14 μm 320x240	Wide 5.7° Narr. 2.8°	< 50mk				
EOSS-450	Cooled, InSb 3-5 micron 640x480	Wide 11° Narr. 2.2°	< 20mk			a) 1570 nm b) 100 m to 20,000 m c) ±5 m d) 5 m e) 1-3 pps	at 220 Vac, 50Hz, one phase, 1000 VA peak
EOSS-450/RF		Wide 11° Narr. 2.2° E-Narr. 1.1°					

Note: Laser Range Finder: a) wavelength - b) range measurement - c) range accuracy - d) target resolution - e) repetition rate

## GENERAL DIAGRAM OF CONNECTION

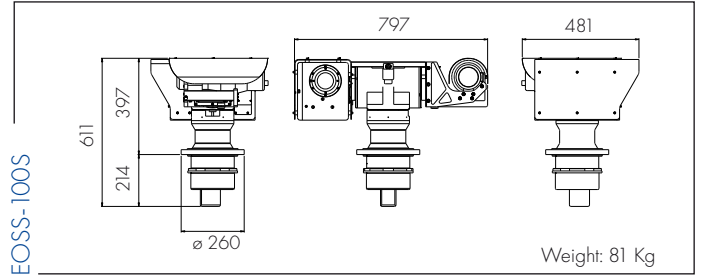


EOSS-100U



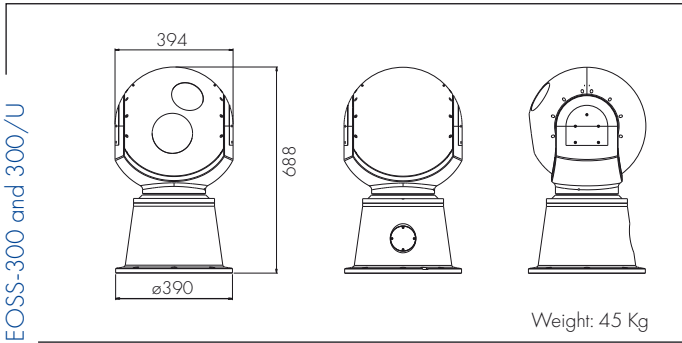
Weight: 83 Kg

EOSS-100S



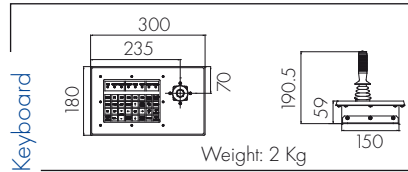
Weight: 81 Kg

EOSS-300 and 300/U



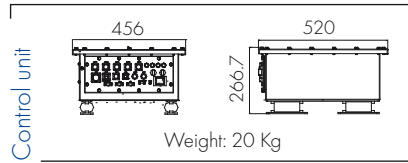
Weight: 45 Kg

Keyboard



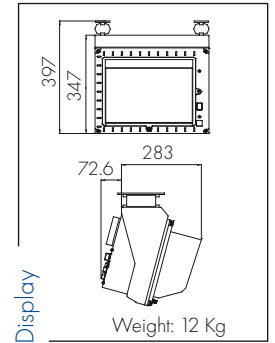
Weight: 2 Kg

Control unit



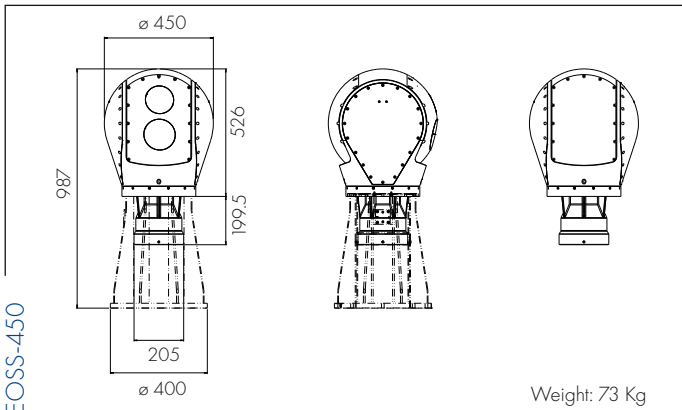
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Display



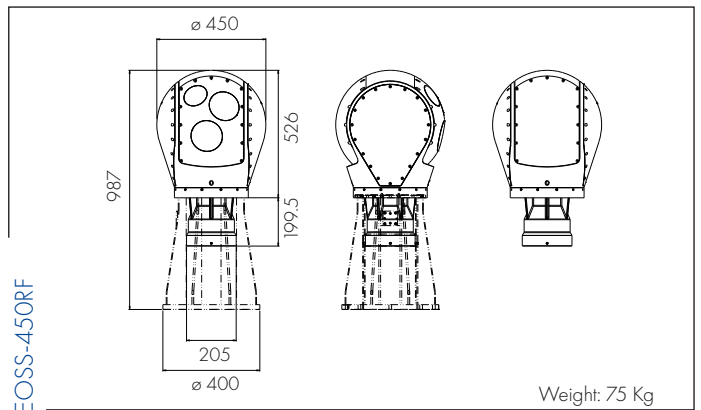
Weight: 12 Kg

EOSS-450



Weight: 73 Kg

EOSS-450RF



Weight: 75 Kg

Surveillance & Security

Guidance, Navigation & Positioning

Military & Defence

Marine Electronics

This brochure should not be considered a contractual offer to sell. The specifications given herein may be changed by the manufacturer, GEM elettronica S.r.l., without notice.

