

## Search System and Optical Communication

# PSAR-100



**PSAR-100** is a system that performs surveillance, optical communication and long distance lighting functions.

Sensors:

**UV Light** used for Search & Rescue and Oil Spill operations; The UV light has a range up to 1000mt;

**White Light** used for long distance research and lighting; it has a maximum range up to 3500mt;

**LED Light** for optical communications made with the Morse code; guarantees excellent visibility both at night and day. The unit has 4 colors: White, Red, Blue and Green. Its maximum range is 6000mt;

Color daylight surveillance **Camera**; it is a camera capable of providing full HD video.

## Summary APPLICATIONS:

- Search & Rescue
- Docking
- Off-shore Oil Industry
- Oil Spill Detection
- Vessel Communication





PSAR-100 is composed of a projectors system made with 2 turrets stabilized on 2 axes and remotely controllable.

## Search and Rescue and Oil Spill Detector



This activity is supported by a long distance lighting system and availability of HD video camera.

## Off-Shore Oil Industry



## Vessel Communication



The system automatically encodes and decodes the optical communications of the Morse alphabet exchanged with other naval units.



Optional Software Presentation



## Technical documentation

### SEARCH LIGHT BODY

Housing Dimension	1116 x 685 x 880 mm (WxDxH)
Clearance	Horizontal Ø 1270 mm, vertical Ø 783 mm
Weight searchlight turret	90 kg
Housing material LED-modules	Seawater resistant aluminium
Housing material searchlight body	Acid proof stainless steel 1.4401 in critical structural parts.
Coating	Powder coat grey
Rubber dampers	4 pcs, 32 x 33 mm, for vibrations and shock
Electrical motors	2 for movements, 5000 hours
Horizontal rotation	Unlimited movement
Vertical movement	Unlimited movement
Protection class	IP66
Speed both axis	Stepless, max 20°/s
Operation temperature	-25°C to +55°C
Relative humidity	100 %
Enclosure protection grade	IP66

### LIGHT PAYLOADS

LED	UV	WHITE	
Signalling light technology			LED
Average life			50 000 h
Power			50 W each color
UV light technology			HMI Metal halide lamp, single-ended
Power			400W
Average life			1000h
Range			1000m
Light beam angle			Fixed spot beam 4 degrees
White light technology			HMI Metal halide lamp, single-ended
Average life			1000 h
Power			575 W
Range			1 Lux at 3500 m
Light beam angle			Fixed spot beam 3 degrees

### CAMERA PAYLOAD

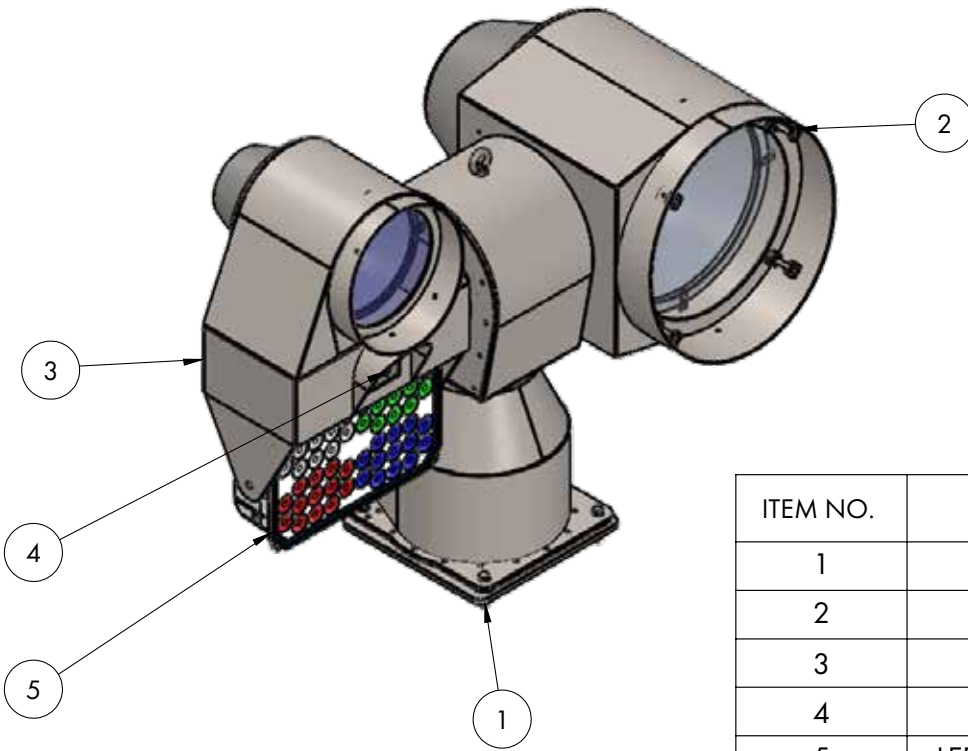
Type	Sony FCB-EV7500
Image sensor	1/2.8 type Exmor CMOS
Picture quality	Full HD 1080p (1920x1080)
Zoom	30x opt., 12x digital (360x with optical zoom)
Lens value	30x opt. zoom; f=4.3mm (wide) to 129.0mm (tele); F1.6 to F4.7
Digital video output	HD-SDI 292M

### ELECTRONIC BOX

Measurements	600 x 210 x 625 mm (WxDxH)
Weight	28 kg
Material	Acid proof stainless steel 1.4401
Coating	FED-STD 595 n° 26307
Protection class	IP44
Supply voltage	115VAC 60Hz
Power consumption	2000W (max load)
Operating temperature	-15°C to +55°C

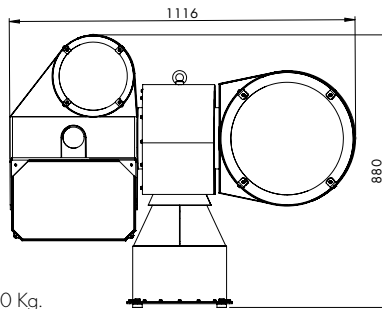
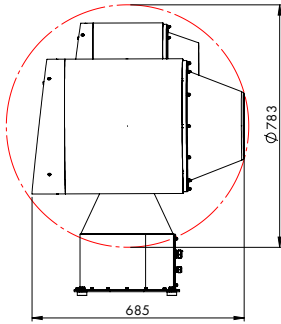
### SAFETY SWITCH

Dimensions	240 x 150 x 180 mm (WxDxH) Wallmount excluded
Housing material	Acid proof stainless steel 1.4401
Weight	4,5 kg
Protection class	IP66
Operating Temperature	-25°C to +55°C



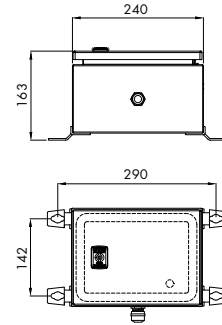
ITEM NO.	DESCRIPTION
1	Complete SAR turret
2	White light head
3	UV head
4	Camera
5	LED light communication unit

#### Optronic sensor

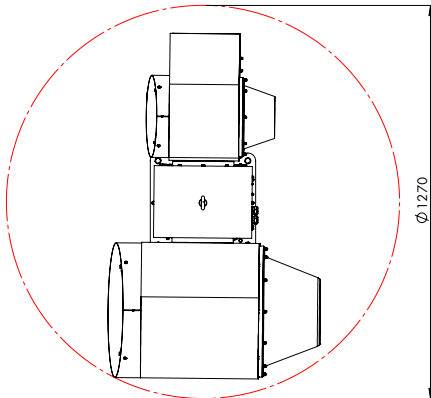


Weight: 90 Kg.

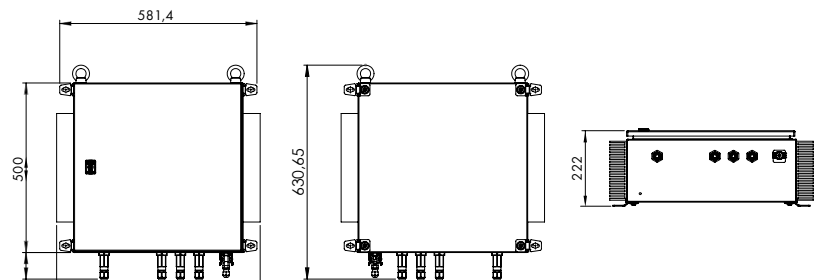
#### Safety Switch



Weight: 4.5 Kg.



#### Motion Control Unit



Weight: 37 Kg.

