

MARISCOPE FLUNDER vs SEAEYE FALCON comparison



	Falcon	Flunder	
Depth rating	300 mts	500 mts	
Chasis	Polypropylene	Structural chassis made of AISI 316L stainless steel, hand welded (TIG) and crystal blasted.	
Dimensions (Length x Width x Height)	1000 x 600 x 500 mm	1200 x 800 x 400 mm	
Weight in air without accessories	60 kg	60 kg	
Propulsion	Type of thruster	Magnetically coupled brushless DC - Type S1-MCT01	Magnetically coupled brushless BLDC@350 V in resistant aluminum housing with anodized surface and zinc sacrificial anode.
	Maintenance	Low maintenance	Maintenance free (all maintenance done in yearly service)
	Power of each thruster	300 W	400 W
	Horizontal thrusters	4	4
	Disposition	Vectorized	Vectorized
	Vertical thrusters	1	2
	Thrust forward	50 kgf	50 kgf
	Thrust lateral	28 kgf	30 kgf
	Thrust vertical	13 kgf	25 kgf
	Forward speed	> 3 knots	>3 knots
Electronic protection	-	Each thruster has a control unit that (in the event of overloads or blockages), protects the ROV and motor from further damage.	
Payload	max 14 kg	Variable buoyancy allows payload up to 100% of the weight of the equipment	
Camera	Resolution	480 TVL	Full HD
	Housing	-	Salt water resistant aluminum housing with hard anodized surface.
	Resolution (pixels)	510 x 492	1920 x 1080
	Horizontal Field of View	91°	110°
	Tilt	± 90°	± 90°
	Laser pointers	As optional	Standard, integrated with the camera in tilting system
	Focus	Fixed	Fixed
Lighting	Quantity	2 LEDS	4 LEDS
	Standard Configuration	Fixed	<ul style="list-style-type: none"> • 2 LED spotlights attached to the same camera tilt system that rotate simultaneously with it to ensure correct illumination at any camera position. • 2 fixed LED spotlights installed to optimize front illumination.
	Intensity	Variable intensity, 3250 lumens	Variable intensity up to >2.900 lumens each LED
	User customization on standard configuration	-	This configuration can be easily customized by the user, as the LED spotlights are attached to the chassis by specially designed brackets to fit the ROV frame.
Automatic standard functions	Auto Depth maintaining	Yes	Yes
	Auto Dive	-	Yes
	Auto Heading	Yes	Yes
	Auto Gimbal (automatic tilt correction to maintain the observed horizon)	-	Yes
	Auto Altitude	Optional	Optional

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Umbilical	Type	Fiber Optics / Twisted Pair	Copper multipolar highly flexible umbilical, high visibility yellow color and neutral buoyancy, and Kevlar reinforcement with 2 ton tensile strength.
	Maximum length	Max 450 m umbilical length upgradeable to 1100m length with F2 Fibre Optic Pack upgrade	1.100 mts
	Data and video transmission	Twisted Pair / Fibre optic data and video transmission system	Real-time Full HD and data transmission to surface via high-speed Ethernet.
Surface video console unit	Type	Rack transportable case.	Installed in waterproof Pelican case.
	Monitor	22" colour high Brightness Removable Monitor	High brightness 21.5" monitor
	Video Goggles	-	Optional
	Data Output	USB/NMEA Output (data export)	USB/NMEA/RS485/Ethernet ports
	Recording	Internal HDD recorder (20 hrs standard video)	Internal SSD recording drive with 500 Gb/1 Tb capacity (250/500 hs standard video)
Steering console	Case		Installed in Pelicase Hull IM2050 case with carrying strap.
	Connection to surface console	5 meters flying lead	Wireless, with range up to 500 meters and rechargeable LiPo batteries.
	Horizontal vehicle control	Single 3 axis joystick for horizontal vehicle control	1 joystick for horizontal vehicle control
	Vertical and lateral control	Rotary trim controller for vertical thrust up or down	1 joystick for vertical and lateral vehicle control
	Camera selection	Yes	Yes
	Tilt control	Yes	Yes
	Cluster LED selection	-	Yes
	Control for lights intensity	Yes	Yes
	Auto pilot functions	Yes	Yes
	Auxiliary vehicle controls (including manipulator open / close)	Yes	Yes
	Recording control	-	Yes
Power Supply Unit	Input	Single phase 100-270 VAC universal auto sensing power input	Single-phase 110/230 V AC
	Power requirements	2,8 kw	Minimum 4,0 kw without accessories
	Integration	-	Integrated in the Video Console
Video overlay system	Compass heading	Yes	Yes
	Depth	Yes	Yes
	Camera tilt position	Yes	Yes
	Auto pilot function status	Yes	Yes
	Umbilical turns counter	Yes	Yes
	Vehicle pitch and roll	Yes	Yes
	CP reading	Yes	Yes
	Date and time	Yes	Yes
	Lat and Long	Yes	Yes
Free text using a QWERTY keyboard	Yes	Yes	
ROV power consumption	-	Yes	
Warranty	?	Lifetime with yearly maintenance	
Cost of annual review	?	2.500 € (Complete with the change of bearings)	
Other Accessories	Manipulators	Optional	Optional
	Acoustic Tracking System	Optional	Optional
	Sonars	Optional	Optional
	HD Camera	Optional	Full HD camera as standard
	Zoom camera	Optional	Optional
	4K camera	Optional	Optional
Additional cameras / lights	Optional	Optional	