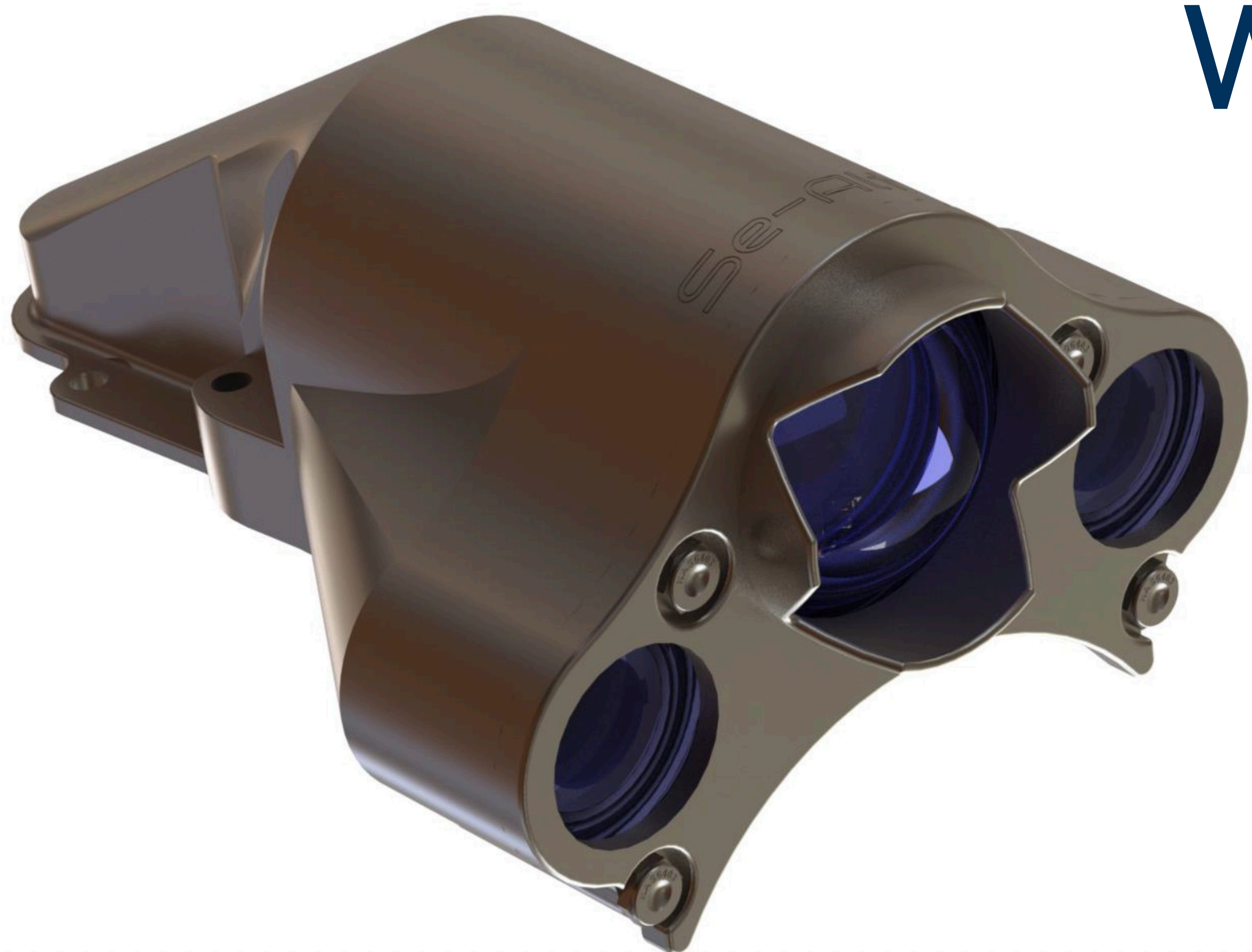


# Subsea Manipulator

## Wrist Camera



- Estimated operational cost savings of 0.56% pa for typical IMR vessels.
- Payback <2 months with time and motion cost savings.
- Enhanced inspection and fault-finding capability.
- Eliminate the need for a wand camera.

The Advanced Capability (ADCAP) Manipulator camera kit by Se-Alt is designed to be a direct replacement and significant upgrade to the standard Schilling Robotics Titan III & IV Wrist Camera.

### System Features

- Full 1080p 60fps HD SDI resolution
- 10xOptical Zoom & Focus, Manual & Auto with further 16x Digital Zoom
- Exceptional Low light Visibility
- Image stabilization reduces blurring from vibration.
- Greatly Increased Lumen output from new LED technology – High and Low beam
- UV Fluorescence detection LEDs as optional extra – under development
- User Friendly UI with all camera parameters available to change in real time
- Power, Camera & Lights, controlled from the Schilling Robotics OEM Master Controller Driver buttons allow for universal familiarity.
- Optional Master Controller Thumb stick (Joystick) for operator control of manual Zoom and Focus Commands
- 3000m depth rated.

### Camera Features

- HD/3G-SDI and HDMI camera solution based on Tamron MP3010M-EV
- Lightweight and compact 5 Megapixel camera
- 10x optical zoom, 16x digital zoom
- High-sensitive 1/2.8-type Sony IMX335 STARVIS CMOS sensor
- Effective number of pixels approx. 5,140,000
- Supports all HD modes up to: 1080p/60
- Shutter speed 1/1 to 1/10,000 sec
- HD-VLC™ output mode for long cable length applications
- Simultaneous display of SDI, HDMI and high-quality analog video supported
- Selectable TTL/RS-232/RS-485 comms port for camera control/communication
- Single VISCA programmable 3.3V PWM output channel

### Camera Physical and Environmental Details:

Power requirement	8V to 12V DC +/- 10%
Power consumption	approx. 3.5W (approx. 5.4W during Z & F)
Operating temperature	-5°C to +60°C (recommended: 0°C to +40°C)
Storage temperature	-20°C to +60°C

### Camera Specifications:

Image sensor	1/2.8-type Sony IMX335 STARVIS CMOS sensor
Pixel output (H x V)	1920 x 1080; 1280 x 720
Signal system (SD)	NTSC/PAL
Video format (HD)	1080p/60, 1080p/59.94, 1080p/50, 1080p/30, 1080p/29.97, 1080p/25, 720p/50, 720p/30, 720p/29.97, 720p/25
Lens (wide to tele)	10x optical zoom, f=3.3 ~ 33mm, F1.8 ~ 3.4
Horizontal viewing angle	59.2° (w) ~ 6.7° (t)