PLS Series Parametric Sub-Bottom Profiler

The PLS product is a family of portable parametric sub-bottom profilers, which uses single-beam parametric technology for sub-bottom profiling exploration and accurate water depth survey.

The PLS provides optional primary frequencies including 100kHz, 200kHz, and 300kHz. The range of secondary frequencies is wide, and real-time data for bathymetry and sub-bottom profiling can be both acquired.

The standard hulls are 2000m and 6000m depth rated, it also can be customized, small form factor, and portable, which is suitable for integration into ROV and AUV.

Features

- Small form factor and portable
- Mature technology
- Wide frequency range
- Easy installation
- Titanium / stainless steel hull optional
- Accurate surveying and high-resolution profile detection

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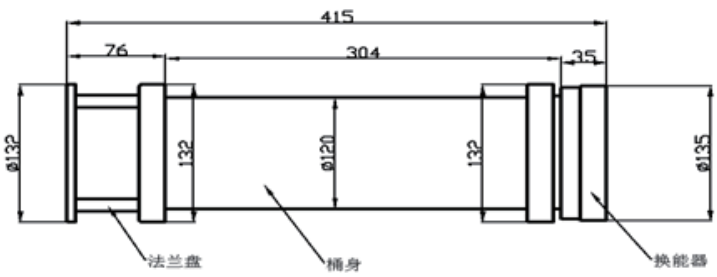
Applications

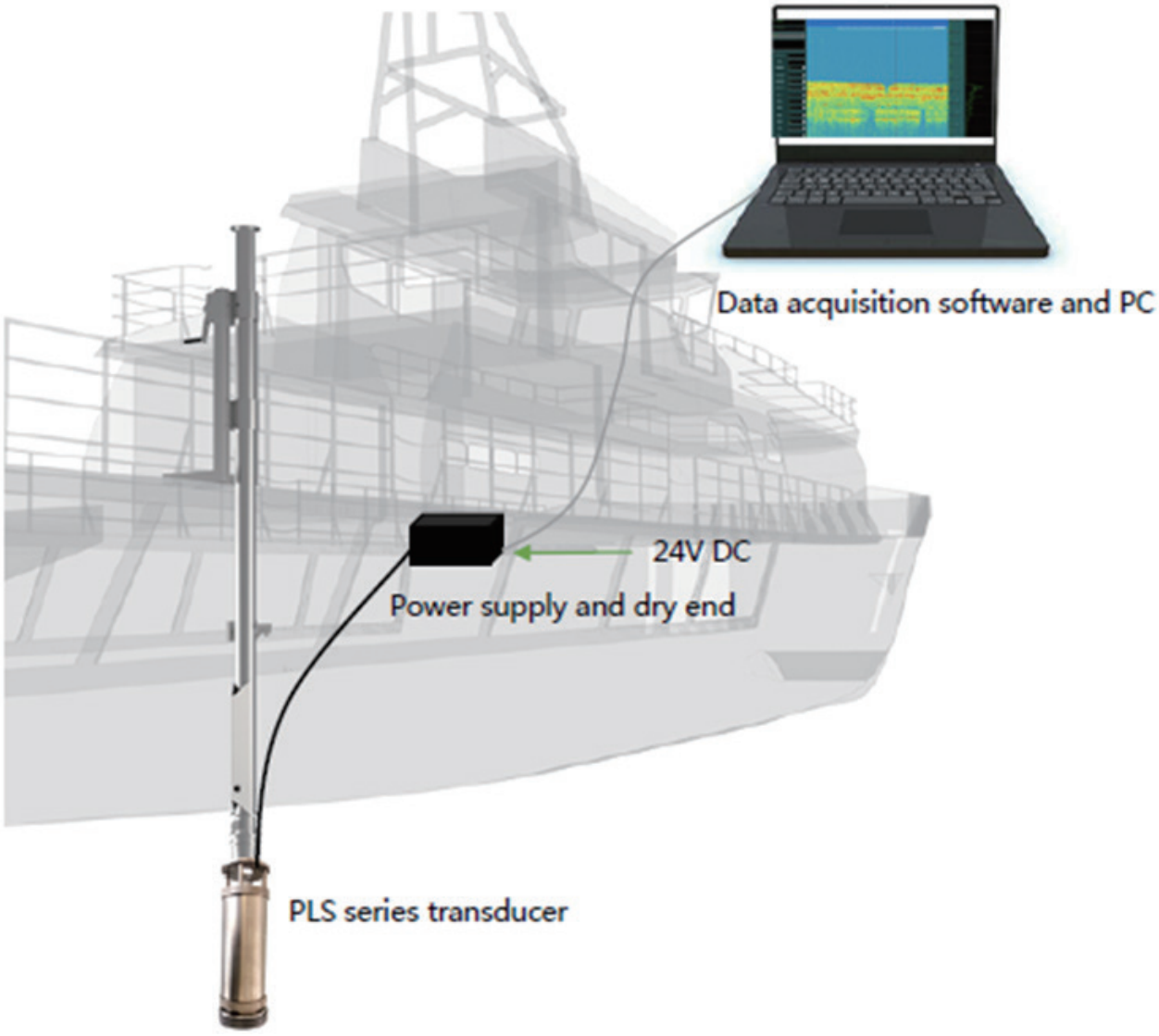
- Geological and geophysical surveys
- Sediment investigation and analysis
- Pipeline routing survey and submarine cable laying project
- Mineral resources searching
- Water depth survey for Shallow water, ports, reservoirs and shore-based areas and silt analysis
- Shipwreck, pipeline, submarine cable, underwater obstacles and boulders searching
- Archaeological operations such as relics and geological subsidence
- Water body and gas seepage monitoring

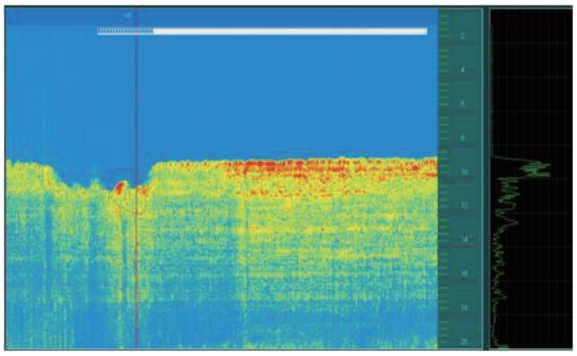


Specifications

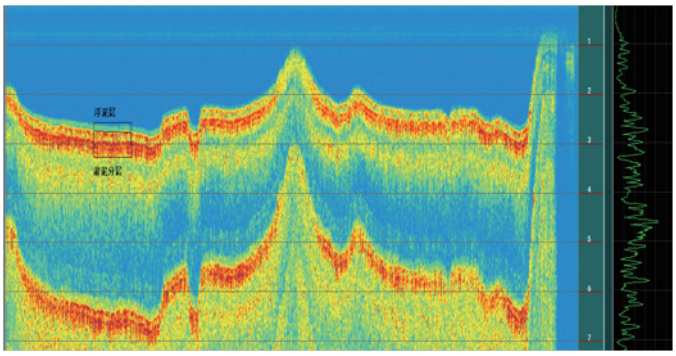
Specifications	PLS-100	PLS-200	PLS-300
Primary Frequency:	85 ~ 115 kHz	180 ~ 220 kHz	270 ~ 330 kHz
Secondary Frequency:	5 ~ 25 kHz	10 ~ 35 kHz	10 ~ 35 kHz
Pulse Lengths:	0.05 ~ 1ms	0.05 ~ 1ms	0.05 ~ 1ms
Pulse Type:	CW,CHIRP optional	CW,CHIRP optional	CW,CHIRP optional
Ping Rate:	Up to 10 pings/s	Up to 10 pings/s	Up to 10 pings/s
Output Power:	＞3 kW	＞3 kW	＞3 kW
Output Power:	~ 5 deg	~ 3.8 deg	~ 3.6 deg
Beamwidth-secondary:	5 ~ 6 deg	4 ~ 5 deg	3 ~ 4 deg
Primary Frequency Source Level:	>240 dB/uPa @ 1m 100Khz	>240 dB/uPa@1m 200Khz	>240 dB/uPa@1m 300Khz
Difference Frequency Source Level:	>196 dB/uPa@1m 20Khz	>196 dB/uPa@1m 20Khz	>196 dB/uPa@1m 30Khz
Dynamic Range:	>110 dB	>110 dB	>110 dB
Range Resolution:	<0.04 m	<0.04 m	<0.04 m
Penetration Capability:	<40m (depends on the sediment and noise)	<20m (depends on the sediment and noise)	<15m (depends on the sediment and noise)
Effective Range:	<150m	<100 m	<50 m
Attitude Compensation:	Heave correction and compensation	Heave correction and compensation	Heave correction and compensation
Power Supply:	24VDC / 220V AC to 24VDC	24VDC / 220V AC to 24VDC	24VDC / 220V AC to 24VDC
Power Consumption:	Less than 35W	Less than 35W	Less than 35W
PC Connector:	Network port , RS485 to USB	Network port , RS485 to USB	Network port , RS485 to USB
External Interface:	GPS, Attitude sensors	GPS, Attitude sensors	GPS, Attitude sensors
Transducer Weight:	Titanium, 12 kg in air, 6 kg in water	Titanium, 9 kg in air, 5 kg in water	Titanium, 8 kg in air, 4 kg in water
Transducer Dimension:	415mm(Length) 160mm(Diameter)	415mm(Length) 140mm(Diameter)	415mm(Length) 110mm(Diameter)
Material:	stainless steel /titanium, optional	stainless steel /titanium, optional	stainless steel /titanium, optional
Temperature:	0°C~40°C	0°C~40°C	0°C~40°C
Software:	Standard PLS-2016 data acquisition software, customized data format to third-party post processing software, such as SonarWiz etc.	Standard PLS-2016 data acquisition software, customized data format to third-party post processing software, such as SonarWiz etc.	Standard PLS-2016 data acquisition software, customized data format to third-party post processing software, such as SonarWiz etc.
Control System:	Laptop	Laptop	Laptop

PLS System Connection





Raw date replay of oil pipe detection



2~3m water depth of waterway in Zhejiang