

Electronic Single/Multi-Shot Survey System



YSS-25 is the thinnest in outer diameter of probe for YSS series electronic single and multi-shot survey system. Besides that it has all the features of YSS-32 type, it is particularly suitable to measurement of the locus of small diameter wells.

YSS-32 is one of the widely applied YSS series electronic single and multi-shot survey system. 1~1945 groups of data acquired from sampling points can be stored, sampling periods can be continuously changed from 5 seconds to 18 hours, and waiting time can be set from 1 second to 18 hours. This instrument is designed small, convenient, precise, and highly reliable.

YSS-45G is designed to meet the high temperature oil well measurement in a special zone. Based on YSS-25 mode inclinometer, it is added with a heat shield tube resistant to a high temperature, and can work for 7 hours in 150°C and 2 hours in 260°C environments. This instrument applies all the features and technical parameters of YSS-25 mode inclinometer except the pressure barrel diameter of $\phi 45\text{mm}$.

Main Technical Parameters

Model	YSS-25	YSS-32	YSS-45G
O.D. of Probe	$\Phi 25\text{mm}$	$\Phi 32\text{mm}$	$\Phi 25\text{mm}$
O.D. of Pressure Barrel	$\Phi 35\text{mm}$	$\Phi 45\text{mm}$	$\Phi 45\text{mm}$
Max. Pressure	100MPa		
Max. Working Temperature	125°C		
Inclination Range	0~180°		
Inclination Accuracy	$\pm 0.2^\circ$		
Azimuth Range	0~360°		
Azimuth Accuracy	$\pm 1.5^\circ$		
Toolface Range	0~360°		
Toolface Accuracy	$\pm 1.5^\circ$		
Memory Capacity	1945 groups		

Electronic Single-shot Pontoon Inclinometer



YSS-48F is a self-floating single-shot electronic inclinometer that can perform inclination, azimuth, and other parameter measurements. Two floating pontoons are optional based on the specific gravity of the mud and downhole pressure. When in operation, it is pumped down to the non-magnetic collar to measure the parameters. When the pump stops and the measurement is completed, the inclinometer buoys up to the well opening automatically by its own buoyancy, free from any steel cable. Its advantages are easy to use and time saving, and these advantages are significantly obvious when applied in the wells of small inclination. When equipped with the proper switch connectors, the inclinometer can perform single-shot hanged measurement, which serves as a standard single-shot inclinometer and offers very flexible and convenient choices to drilling measurement.

YSS-48D is a standard electronic single-shot inclinometer, which can perform a hanged measurement or plunged measurement. When working down hole, it stores the primary data measured by a group of sensors into memories as soon as the preset time is reached. When it is back to the surface, inclination, azimuth, tool face, temperature, and other the downhole parameters can be acquired with surface instruments. This inclinometer seamlessly integrates all the mechanic and electronic parts of the survey unit, pressure barrel and shock absorber assembly. This instrument only requires the users to make simple connection and parameters set up in real operations, with following advantages: easy to operate, convenient to use and highly reliable.

YSS-48FD electronic single-shot inclinometer can be applied in two ways, i.e. either as a pontoon inclinometer or as a standard inclinometer. When applied as a pontoon inclinometer, it is connected to a small specific gravity, anti-erosion, and high strength pontoon and is pumped through dynamic pressure of mud down to the non-magnetic collar to measure parameters. When the pump stops and measurement is completed, the inclinometer buoys up to the well opening automatically by its own buoyancy, free from any steel cable. Its advantages are easy to use and time saving, and these advantages are significantly obvious when applied in the wells of small inclination. When applied as a standard inclinometer, the compression barrel of the instrument can be connected to guiding shoe through switch connectors to perform single-shot hanged measurement, which serves as a standard single-shot inclinometer and offers very flexible and convenient choices to drilling measurement.



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Main Technical Parameters

Model	YSS-48F	YSS-48D	YSS-48FD
Inclination Range	0~180°		
Inclination Accuracy	±0.2°		
Azimuth Range	0~360°		
Azimuth Accuracy	±1.5° (for inclination>2.5°)		
Toolface Range	0~360°		
Toolface Accuracy	±1.5°(for single-shot hanged measurement)	±1.5°	±1.5°
Probe Length	≤820 mm		
Probe Weight	≤2.6Kg	≤3.6Kg	≤2.6Kg
O.D. of Pressure Barrel	Φ48mm		
Max. Working Temperature	125℃		
Max. Pressure	60MPa (carbon fiber pontoon) 90MPa (aluminum alloy pontoon)	100MPa	≤ 60 MPa When applied as a electronic single-shot pontoon inclinometer
Total Length	≤ 5m		
Overall Specific Gravity	≤0.85 (carbon fiber pontoon) ≤1.25 (aluminum alloy pontoon)	-	≤0.85
Floating Speed	150m/min	-	≧ 150m/min
Max. Well Inclination	40°	-	40°
Applicable Mud Gravity	0.9~1.8 (carbon fiber pontoon) 1.5 (aluminum alloy pontoon)	-	0.9~1.8
Mud Viscosity	-	-	≤ 50 cp

Gyroscopic Inclinometer



Features

- ※ Easy to operate.
- ※ Small and light weight.
- ※ High accuracy.

Main Technical Parameters

Inclination Range	0~30°, deviation ≤ 0.1°
Azimuth Range	0~359°, deviation = ± 2°
Max. Azimuth Time Drift	< 8°/h
Gyroscope	Frame Unrestrained Gyroscope
Inclination Sensor	Biaxial Electronic Inclination Sensor
Pressure Tolerance of Probe	≥ 20Mpa
Working Temperature	-10°C ~ 70°C
Downhole Tool Dimension	φ50 X 1300mm
Downhole Tool Weight	≤ 10Kg
Surface Instrument Dimension	330 X 240 X 170 mm (L X B X H)
Applicable Depth	0~10000m, deviation = 0.1m
Recording Type	Electronic Accumulator
Printer	Mini Printer with narrow paper
Communicating Joint	RS232 or USB (selectable)
Power Source	AC 220V ± 10% 50Hz, ≥ 50W (including downhole tool)