1.1 Functions and Application
Measuring the inclination angle, orientation of magnetic operating face and orientation of high side operating face of at the end of the drilling hole or a specific position while drilling. Widely applied for survey of well-hole drilling in the fields of petroleum, coal mine, irrigation establishment.

1.2 Features
For various operational purposes:
Satisfying various survey purposes either for suspending measurement or self-floating measurement once equipped with different external protectors.

High precision and reliability:
As the key part of inclinometer, acceleration sensor with a shockproof accelerometer have characteristics of high linearity, little temperature drifting and good recurrence, etc.

Power-off protection:
Power failure caused by shakes or pressures would not result in operational disruption or data loss.

Dynamic performance:
Excellent data collecting and processing in either dynamic or static performance.

Shock and impact-resistance:
External multi-vibrate-resist buffer, both radial and axial.

Low temperature environment suitable:
Normal performance at -40 °C.

Deep-well measuring:
Equipped with heat insulation protector, normal working at 250 ℃, under 125MPa.

1.3 Specification:
Φ32 and Φ27

1.4 Working conditions:
Temperature:-40 ℃ ~ 125 ℃ (max. 250 ℃ with heat insulation protector)
Shock resistance: ≤4.5g, 10 ~ 100Hz
Impact resistance: ≤2000g, 0.5ms.

2. Technical Parameters

<table>
<thead>
<tr>
<th>Item</th>
<th>Range</th>
<th>Precision</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclination</td>
<td>0 ~ 180°</td>
<td>±0.2°</td>
<td>/</td>
</tr>
<tr>
<td>Azimuth</td>
<td>0 ~ 360°</td>
<td>±1.0°</td>
<td>Well inclination≥6°</td>
</tr>
<tr>
<td>High side operating face</td>
<td>0 ~ 360°</td>
<td>±0.5°</td>
<td>Well inclination≥6°</td>
</tr>
<tr>
<td>magnetic operating face</td>
<td>0 ~ 360°</td>
<td>±1.0°</td>
<td>Well inclination≤8°</td>
</tr>
<tr>
<td>Temperature</td>
<td>-40 ~ 125 ℃</td>
<td>±2 ℃</td>
<td>/</td>
</tr>
</tbody>
</table>

Other parameters
Voltage: DC6V ~ DC8V
Electricity: under DC5V, stand-by condition ≤30mA, data-collecting ≤150mA
Temperature: -40 ~ 125℃
Impact resistance: 2000g, 0.5ms.
Shock resistance: 10g, 20 ~ 100Hz.
Dynamic performance: when vibrating acceleration is 3g, frequency is 20Hz, possible inclination error: ≤0.2° compared with static measurement.
Range of Delay: 1 ~ 99min, minimum 1min;
Interval scope: 1 ~ 99sec, minimum 1sec (only for multi-shot)
Max. sampling: 3600 points (only for multi-shot)
Continuous working time: min 20 hrs (only for multi-shot)

3. Rechargeable battery barrel
   For single shot
   Voltage output: DC7.2V.
   Electricity output: ≥500mAh
   Working Temperature: -40 ~ 125℃
   Charge or discharge times: ≥800 times
   Charging time: 2 ~ 4H
   Discharging time: ≥30min

   For multi shots
   Voltage output: DC6V
   Electricity output: ≥2000mAh
   Working Temperature: -40 ~ 125℃
   Charge or discharge times: ≥800 times
   Charging time: 16 ~ 17H
   Discharging time: ≥12h