Device Name	Pan & tilt borehole camera	Equipment Type	FLX-PT2000REC
Waterproof	IP68, up to 200 Bars(20 MPA)	Cable length	300-1500meters
E x x 7			

### **The Features**

- \* Ø90mm Pan & Tilt camera head, pan 360° rotation, tilt 180° rotation, stainless steel CCD camera,
- \* Front LED & focus adjustable, 720TVL
- \* IP68 waterproof ,up to 200 Bars(20 MPA)
- \* 300m-1500m polypropylene cable with electric winch
- \* Electric winch winding speed adjustable
- \* Depth counter, the depth shows on the display, the depth accuracy: 0.005m and it supports depth reset
- \* 12inch LCD display
- \* DVR control part with video recording function
- \* 16G SD card(max 32G) to storage video
- \* Power supply: AC220V

This Water Well Downhole/ Borehole Camera is a great combination of modern technology and affordable price. It is well suited for inspecting various reservoirs, wells, borehole, downhole, shafts, pipes, tanks and other objects from the top down. It is equipped with a Ø90mm PT camera head enabling operators to receive a complete detailed image of the inspection area. The Ø90mm PT camera head supports 360degree pan rotation and 180 degree tilt rotation, and it is equipped with CCD sensors and 28pcs high-output long-lasting LED light allowing for capturing bright and detailed images even in poor lighting environments. The downhole camera heads are IP68 waterproof and withstand pressure up to 200 bars in water.

The Downhole Camera features a compact control unit with a high-resolution 12" LCD display. The inspection process can be viewed on the display right on site, captured as video files. All data can be saved on 16G SD card(Maximum 32G). The user-friendly interface offers various operation features, such as, the depth counter, the winch operating knob, rotation control and so on.

The system works with Ø7.8mm modified polypropylene cables(6 wires inside, which can bear 280KG) of different lengths (from 300m to 1500m) that can be securely coiled on an electric winch. The electric winch allowing for winding the cable up and down with different speeds, and the winch also can control by hand. Besides, the system is with the depth counter, the users can view the depth on the screen, the depth accuracy reach to 0.005m and it supports depth reset.

The downhole camera works on a conventional AC220V power supply, or we can make it work with AC110V by a AC110V to AC220C converter.

Features	* Ø90mm PT camera head, pan 360 degree rotation, tilt 180degree rotation, stainless steel CCD camera,  * Front LED & focus adjustable, 720TVL  * IP68 waterproof ,up to 200 Bars(20 MPA)  * 300m-1500m polypropylene cable with electric winch  * Electric winch winding speed adjustable  * Depth counter, the depth shows on the display, the depth accuracy: 0.005m and it supports depth reset  * 12inch LCD display  * DVR control part with video recording function  * 16G SD card(max 32G) to storage video  * Power supply: AC220V  Optional functions:  * Ø75mm/55mm down view camera head (Optional)  * Ø75mm pan & tilt camera head (Optional)  * Ø75mm/50mm dual camera head (Optional)
Pan & Tilt Camera Head	* Ø90mm PT camera head, pan 360 degree rotation, tilt 180degree rotation  * CCD camera, 720TVL  * Front LED & focus adjustable  * Waterproof IP68 Operating depth 200 bars (20 MPA)  * Camera length:30cm  * Camera Material: 304 stainless steel  * Camera Lens Material: Explosion-proof optical glass  * Sensor resolution: PAL 720H×576V NTSC 720H×480V  * Camera LED: Front 12 pcs, Rear 16 pcs high bright LED
Down View Camera (Optional)	* Ø75mm down view camera head  * CCD camera, 700TVL  * Camera: Split galvanized iron probe, easy to dismantle  * Camera lens: wear anti-reflective resin sheet  * Waterproof IP68 Operating depth 200 bars (20 MPA)  * Lens Angle view: 130 degree wide-angle  * Camera Light: 9-12 high brightness LED cold light LED  * Sensor resolution: PAL 720H×576V NTSC 720H×480V

About the packing	wooden box	
Other Accessories	One Manual, a set of connecting cables, 5 pcs seals, a set of wearing parts	
Electric Winch	* Power supply: AC220V  * Motor: permanent magnet DC motor  * Cable speed adjustable  * the camera heads are removable  * \$\Phi 7.8\text{mm normal polypropylene cable (300m-1500m optional)}  * Pulley: Pulley is with depth counter, the depth counter can be used when it is connected with the main control box, pulse: 500  * Depth counter, the depth shows on the display, the depth accuracy: 0.005m and it supports depth reset  * Winch tray: aluminum stop tray  * Split docking probe: easy exchange of different sizes probe	
Control Part	* Input voltage: 220V  * Depth Interface: Connect depth counter  * Probe Interface: Connect the probe, transmit video and power  * Data Interface: Write their own wells pound, self-calibration depth  * Winch operating knob(adjusting speed, cable up and down, brake)  * Camera rotation control button  * LED brightness control button  * HD DVR Video record  * Video storage Medium: 16G SD card(Max 32G)  * the depth reset  * Electric winch	
The Display	* 12" LCD display, 291*251*48mm  * Display model 4:3  * Contrast Ratio: 400: 1  * Brightness: 450cd / m  * Resolution: 1024 × 768  * Power: DC 12V  * Color System: PAL / NTSC / SECAM	

### Pan & Tilt Camera Head:

- 1) Ø90mm PT camera head, CCD camera, 720TVL
- 2) Pan 360° rotate endless, tilt 180°
- 3) Waterproof IP68 Operating depth 200 bars (20 MPA)
- 4) Camera LED: Front 12 pcs, Rear 16 pcs high bright LED
- 5) Front LED & focus are adjustable







### **Down View Camera (Optional)**

- 1) Ø75mm down view camera head, CCD camera, 700TVL
- 2) Waterproof IP68 Operating depth 200 bars (20 MPA)
- 3) Lens Angle view: 130 degree wide-angle
- 4) Camera Light: 9-12 high brightness LED cold light LED



#### The Connector of The Camera Head and The Cable

According to the requirements of oil well logging industry, the connector adopts axial seal and cross-section seal, two - layer waterproof design, the pressure resistant is 15MPA.









## The Display

1) 12" LED display, 291\*251\*48mm

2) Resolution: 1024 × 768

3) Color System: PAL / NTSC / SECAM;



#### **The Control Panel**

1) Input voltage: 220V

2) Depth Interface: Connect depth counter

3) Probe Interface: Connect the probe, transmit video and power

4) Data Interface: Write their own wells pound, self-calibration depth

5) Winch operating knob(adjusting speed, cable up and down, brake)

6) Camera rotation control button

7) LED brightness control button

8) HD DVR Video record & playback

9) Video storage Medium: 16G SD card(Max 32G)

10) the depth reset



#### The Electric Winch

- 1) Power supply: AC220V
- 2) Motor: permanent magnet DC motor
- 3) Cable speed adjustable
- 4) the camera heads are removable
- 5) Pulley: Pulley is with depth counter, the depth counter can be used when it is connected with the main control box, pulse: 500
- 6) Depth sensor, the depth shows on the display, the depth accuracy: 0.05m and it supports depth reset
- 7) Winch tray: aluminum stop tray
- 8) Split docking probe: easy exchange of different sizes probe



The electric winch



The pulley with depth counter



The Electric Winch with Auto Cable (Option)

#### Auto cable function for option

The cable will be arranged in order automatically when the winch take back the cable if the electric winch with the auto cable function.

## **Our Factory:**









