

# C50 series

## Electric HD Industrial Videoscope

Strong features /  
Superior Quality /  
Easy operation /  
Light and handy /



C50 series is the upgraded version of E5 series, equipped with many excellent features. It has a real-time multitasking operating system, with real million pixel high-definition. Logo information can be customized on the image by users and rename function is available. It is the representative product and pilot product in the industrial videoscope industry.

## ✓ Super features

### • Million HD cameras, excellent image processing technology

5 inch high-definition LED display, the image is more delicate, the color is more realistic. The image resolution supports QHD、HD、 Full HD (optional), up to 960\*720, restoring the real details.

### • Super light, 100,000 lx, super large view angle

Applicable to the dark and harsh environment. Illumination is 50 times of ordinary endoscopes, with 7 level cycle brightness adjustment function. Detection can be adjusted according to the light source in time.

Multi depth of field and multi FOV can make the user get good results.

### • Real-time HDMI video output, solve the problem quickly

With VGA video output interface, it can be connected with PC by special data cable, it is suitable for expert consultation, in order to find problem of detected object quickly.



#### Overexposure intelligent processing



Before processing



After processing

#### Wider processing technology

( Effectively highlight the details of images with shadows and highlight )



Before processing



After processing

## ✓ Excellent quality

### • User-defined function for editing pictures

File customization, which can add watermarks and brand to pictures, rename files, etc.

Brand logo can be added

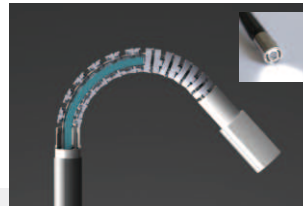


File name can be edited

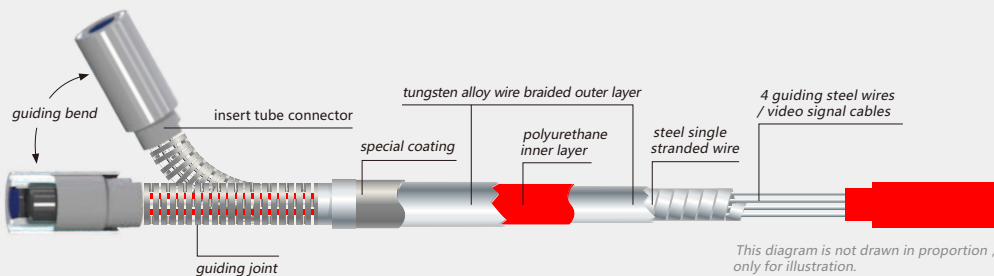
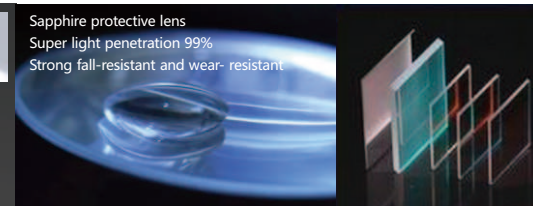


### • Waterproof, wearable, durable

### • Wear resistance of probe and laser welding process



Sapphire protective lens  
Super light penetration 99%  
Strong fall-resistant and wear-resistant



On the part of insert tube probe, we used 21-point laser welding process, which has a more strict requirements for the producing precision. This precise process ensures P50pro series borescopes owns powerful guiding function.

### • Double tungsten alloy braided insert tube of 4 layers

More closely woven than stainless steel insert tubes.

Wear resistance:  
20 times better than steel wire insert tube.

Flexibility:  
4 times better than other materials.  
More durable and flexible during operation.

This diagram is not drawn in proportion, only for illustration.

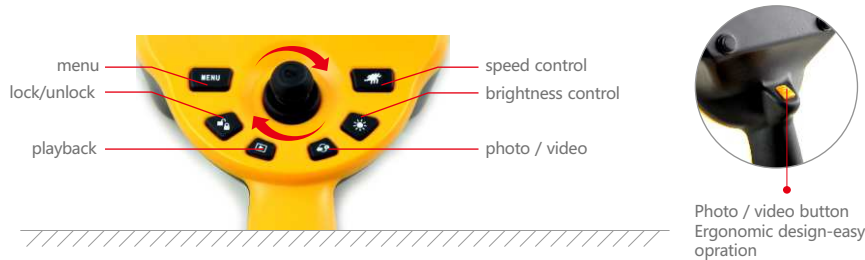
## ✓ Easy operation

### • Intelligent navigation menu

Simple and intuitive guidance menu easy to understand, easy to use, beginners do not need training and can operate immediately.

Support 7 languages : Chinese, English, Russian, etc. Available in word wide.

0.1 seconds automatic exposure, white balance function, can quickly capture the details of the detected object, and feedback through high-definition pixel pictures.



### • Multifunctional Joystick



The unique rocker closed loop control technology can enhance the bending sensitivity and control force of the probe, so that the operation is more accurate.

Multi function joystick can be one-key locked, the stepping speed is adjustable, with fast and slow adjustment. And other functions as automatic reset, OK determine, menu navigation make the detection work easier.

## ✓ Security convenient

### • Complete accessories and long working time

The total weight (with battery) is only 1.45Kg. It is also equipped with leather bag, safe and portable. Whether the object you inspection is a wind turbine gearbox on a 100 meter tower or a complex large machine, with C50 industrial endoscope in hand, everything is easy.

The packaging case is fall-resistant, light and portable. Users can easily put it into luggage rack in the aircraft, train, etc. Inside of the packaging case, the design is compact and reasonable, which has sturdy and solid protection function.

With a design of low power consumption, a set of rechargeable lithium batteries of C50 series can work at least 4 hours. It is equipped with another set of batteries to support long time inspection work.



Despite the cumbersome connections and heavy hosts, one hand operation is possible. Compact design and excellent use of features bring us unprecedented use experience.



C50 has past the certifications of ISO9001/ISO14001/ISO18001.



Camera	
Lens Diameter	Φ4.2mm/Φ6mm/Φ8mm
Pixels	1,000,000 pixels
Observation direction	Standard:front view(0°) ,side(90° ) optional
Camera Material	Titanium alloy(Attached to the inspection report of China Quality Inspection Institution)
Depth of Field	Standard:10 ~ 100mm/5mm ~ 50mm/300mm ~ ∞ ( Optional )
Angle of Field	120°
System	
Insert Tube	Quadruple tungsten-braided tubes
Effective Working Length	Standard:1.5m/2m,others can be customized
Bending Control	360°all way mechanical control
Bending Angle	≥160°
Bending Speed Control	Fast/Slow
Bending lock	One-key lock
Step Regulation	Step regulation between high-speed and low-speed bend
Light Type	Rear-mounted LED ( ≥3w hour )
Bright Adjustment	Manual, 7 levels
Illumination	100,000lx at a maximum , adjustable
Light Add	Additional emergency light
Display	Highlight 5.0 inches TFT LCD
Display Resolution	640*480
Image Resolution	960*720
Picture/Video Format	BMP/AVI
White Balance	Auto white balance
Language	7 languages(optional)
Memory	Standard:8G SD card,Support 32G at maximum
Data Interface	HDMI,SD Card
Special Functions	File can be renamed and locked. User can add logo to the image.

Host	
Host Size	380mm/135mm/85mm
Host Weight	≤1.5kg ( with batteries )
Packaging Case Size	565mm/418mm/158mm
Host structure	Integrated handheld design
Waterproof IP	Camera/Object lens/TubesIP67
Fall-resistant	1.2m fall-resistant
Insert tube stress relief device	Buffer protection device for connecting main machine and wear-resistant pipe
Warranty	free charge for one year, life - long maintenance

Power Supply	
Battery	3 rechargeable lithium battery ( dismountable)
Battery Capacity	4.2V 3200mAh
Host Working Time	≥4 hours
Charging Parameters	DC12V, Maximum current : 1A

Operation Environment	
Host System Working Temperature	-10°C~50°C , when 0°C below, the display needs preheating.
Camera Working Temperature	-25°C~85°C , when 0°C below, please reduce oriented operation.
Store Temperature	-20°C~60°C
Relative Humidity	Maximum: 90%, non-condensing

Accessories	
Standard Configuration : Instrument case, C50 borescope, 2 sets of batteries, card reader, 8G SD card, adaptor, users manual, certificate, warranty card	
Optional : Customized clamp, shaped tube, leather bag, remote image receiver	



### Industrial endoscope- Application areas

C50pro series borescopes are widely applied in the field of special equipment inspection, electric power, car manufacturing, automotive aftermarket, petrochemical, machinery, aviation, shipbuilding,rail transportation, food medicine machine, mold manufacturing, machinery processing,police safety, military equipment,university research, etc.

- 1 , Internal cavity inspection** -Check surface cracks, peeling, wire pulling, cracks, pits, bumps, spots, corrosion and other defects.
- 2 , Assembly inspection** -Check whether the components meet the drawing or technical requirements and whether there is assembly defects.
- 3 , Inspection of weld surface defects** -Inspection of weld surface cracks, incomplete penetration and welding leakage.
- 4 , Check excess items** -Check the residues inthe inner cavity of the product.
- 5 , Status check** -After a product (engine, etc.) is working,do the inspection work accoding to the items specified in the technical requirements.



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- Energy industry**  
For nuclear power plant,wind power plants, hydroelectric power plant, power plant, electric power construction unit testing equipment, such as turbines, set equipment box, pipe, condenser pipe, pump, boiler, heat exchanger, valves, pressure vessel defect detection, Detection Inspection and maintenance.
- Petrochemical industry**  
Used for storage tanks, heat exchangers, spherical tanks,cars,chemical industry pipeline facilities, special inspection units and pressure vessel production units, suchas containers,cylinders,pipes and other internal defects inspection and inspection.
- Aerospace**  
For aircraft engine combustion chamber,and the weld surface, with the surface of the catheter, aircraft and other parts of the turbine blades,regular inspection or maintenance, and other aircraft, rocket,aerospace research and development,mold manufacturing.
- Automobile manufacturing**  
Used to inspect the engine block,cylinder head,turbine,transmission,exhaust pipe,valve body, pump body,control module,oil pressure component,nozzles and other parts of the quality control and vehicle assembly inspection.
- Machine building**  
Used for automobile parts casting, hydraulic casting,pump body,valve casting,mechanical parts casting,pipe fittings casting,used for checking casting,sand inclusion,burr and other quality control.
- Special inspection industry**  
Used for boilers, pressure vessels,pressure pipes,gas cylinders,petroleum and petrochemical storage tanks,boilers,header,water wall and gas cylinder inspection,pressure pipes on welds,pipe wall cracks, pipes, foreign bodies and so on.
- Food medicine machine**  
Used in the manufacture and installation of food,beverage, biological fermentation, pharmaceutical industry,inspection containers,pipes,welding scars, weld formation and cleanliness,maintenance in installation and use.
- Police safety**  
Used in public security,armed forces inspection institutions,fire units and other units to carry out explosion-proof security,city anti-terrorism,customs inspection,life detection, etc.
- Military equipment**  
For missiles, warships,submarines,aircraft,armored vehicles,diesel engine,barrel and other equipment manufacturing quality control and maintenance.
- After auto market**  
For car maintenance,car 4S shop,chemical industry,on the engine combustion chamber, nozzle, valve, piston and three Yuan catalysis,evaporation tank,pipeline and gap check.