# CF SERIES
3D MEASUREMENT VIDEOSCOPE

CF pro 3D Measurement Videoscope

3D measurement function is a major difficulty in the endoscope industry. Whether the process selection of product appearance materials or the research to the design of software measurement algorithms, POTOP R&D team made a large number of feasibility studies and simulation tests.

3.9mm 0°/90° camera
6.0mm 0°/90° camera
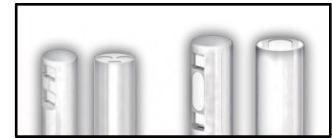
Measurement function

point-to-point/point-to-line/point to surface depth/ multiple pointcircumference measurement，**measurement accuracy ≥ 95%**
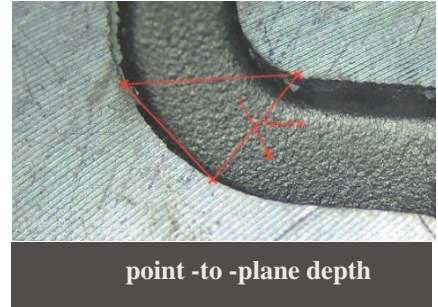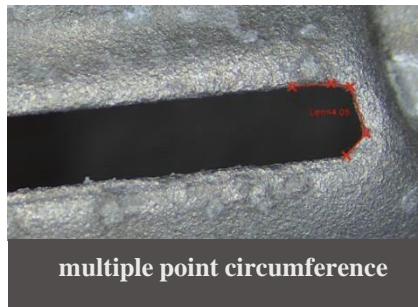
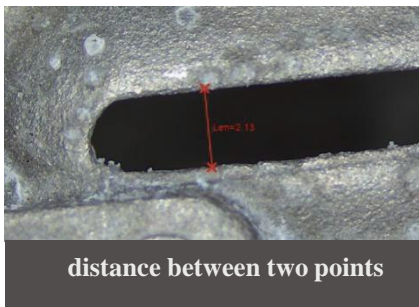measurement modes

measurement data displays in list

zoom in/out

note text, mark, free drawing

distance between two points

multiple point circumference

point -to -plane depth

intelligent operating system, accurate measurement results

# High precision and fast global scanning 3D cloud image

- Fast global scanning to view 3D physical cloud image

- Vertical depth cloud map, automatic measurement of maximum depth

- 3D cloud image XYZ coordinate display, arbitrary section view, easy to locate the depth and height difference of internal defects

- the datum plane shifts and the depth value changes in real time
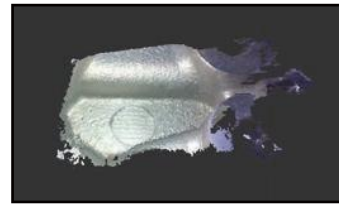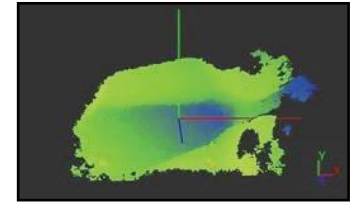

3D physical cloud image
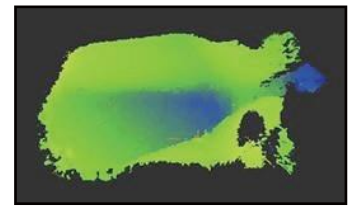
Vertical depth nephogram
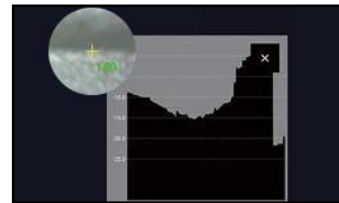
Profile

Cloud 3D coordinates

Intelligent Software

Picture in Picture
static/dynamic image comparison software

1920*1200 Super HD image, full screen

Full screen mode

Smart inspection

Dual-camera image

Intelligent operation system

Image adjustment: resolution options

Camera parameters setting: brightness/ contrast/ gamma/ ray/ saturation/sharpness

Image effects: auto balance/ negative film/mirror image or rotation/image freezing

Note text: annotation/free drawing/mark

Picture annotation, free drawing
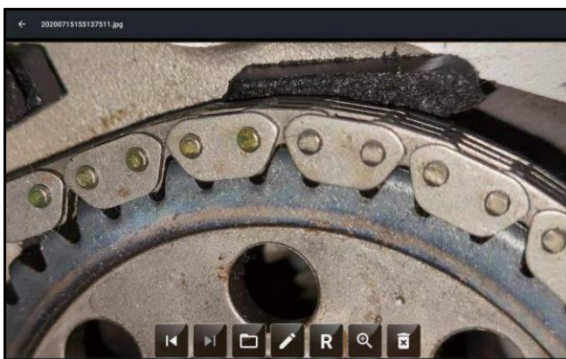
① select pictures or freeze the image ; select "free drawing" icon.
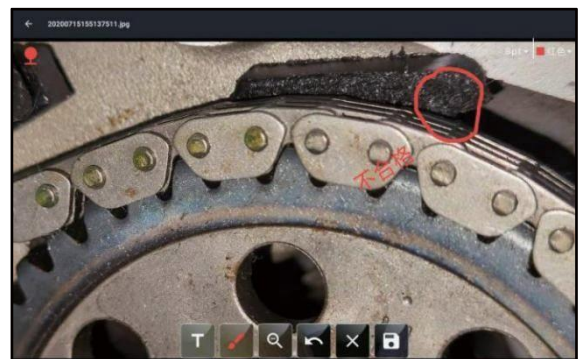
②text note or mark and ; confirm after operation to save

MDI report generation
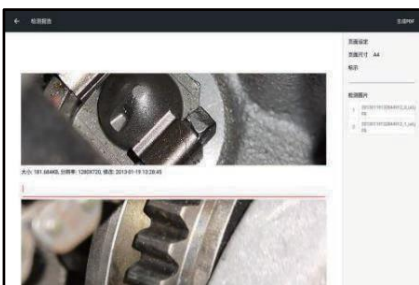
select pictures and editing the report

generate report in PDF file
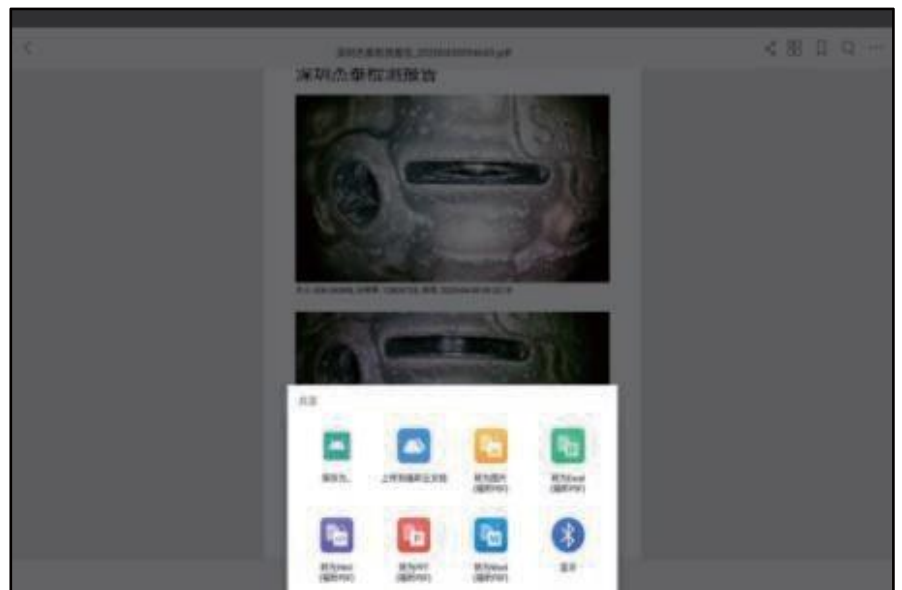
Treport sent to the mobile phone via bluetooth

Portable design

adjustable bracket

buckle to fix monitor and handle

practical strap

HDMI

- HDMI image output, synchronous image display
- 3.0/2.0 dual USB port
- 32G SD card, support 128G card at maximum

illuminance

super bright ceramic light

Wear resistant tube

5 layers of tungsten- braided tube;
Wear resistance: 20 times better
than ordinary probe
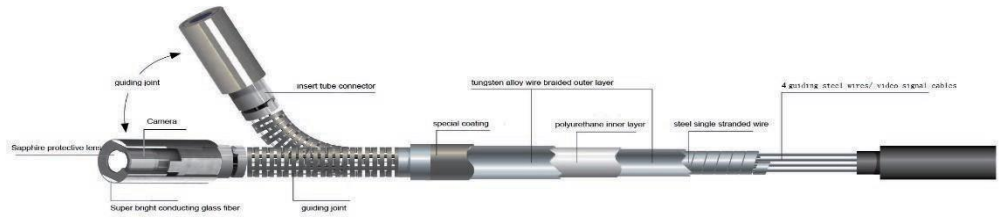
360° articulation

maximum bending angle:190°

Parameters

Probe

Diameter	6.0mm/3.9mm
DOF	5~50mm / 10~100mm
FOV	120°
Sensor	HD image sensor
Resolution	HD 1000000 pixels
Working length	2m/3m, customized
Material	abrasion-resistant alloy
Temperature	No

System

Case size	360×360×100mm
Host size	300×220×59mm
Host weight	1.9KG
Host material	magnesium aluminum alloy
Display resolution	1920×1200
Joystick handle size	235×90×70mm
Joystick handle weight	0.4KG
Articulation	360°
Bending angle	≤150°
Storage	Internal memory/SD card/U disk（optional）
I/O port	Micro USB×2;mini HDMI×1;SD slot×1;Air plug×1
Video output	HDMI
Light source	Real cold light source+fiber
Brightness level	5X
Illumination	Max 100000LX
White balance	Automatic
Battery capacity	3000mA/3.7V ×4
Battery charging	12V，1A
Power	10W
Battery work time	2.5h
DC mode	Support charging while use

Software

Operation system	Real-time intelligent multitasking operating system
User interface	Button+touch screen
File management	Intelligent file management system, support to the memory and SD card, USB storage media files and folders for the following operations: copy, cut, rename, delete, and so on
Image adjustment	Image adjustment: resolution options Camera parameters setting: brightness/ contrast/ gamma/ ray/ saturation/sharpness Image effects: auto balance/ negative film/mirror image or rotation/image freezing Note text: annotation/free drawing/mark
Image zoom in/out	3X
Image format	JPG
Video format	MP4
Text annotation	Photo text overlay, can choose the font size of the annotation text
Image annotation	Seal (default/custom), doodle, text input
Software upgrade	On-site upgrades are available via SD card and USB storage media
Language	English / French / German / Spanish / Japanese / Traditional Chinese / Simplified Chinese / Russian / Korean
Utility software	MDI report generation software Dual video input switching software (it shall be equipped with the direct side view switching pipeline) Picture in picture comparison software 3D measurement software

Measurement Function

Point to point distance	Measure the distance between two points
Point to line distance	Measure the distance from the point to the line
Point to surface depth	Measure the distance from the point to the surface
Multi-segment line length	Measure the total length of multiple continuous lines
Closed segment length	Measure the length of multiple closed continuous lines
Line to surface depth	Measure the depth of the line to the specified surface
Area	Measure the area of a closed polygon（pending）
Partial magnifying window assist function	3X
picture can be measured times	Multiple measurements can be made continuously
Measuring list	Multiple measurements can be tabulated
Standard precision value	0.1mm
Minimum precision value	0.01mm
Accuracy	≈95%

MODEL	DISPLAY	DIAMETER	LENGTH	ARTICULATION	CAMERA PIXELS	LED LIGHT	Bend Angle	Option
CF10-39014	10.1"	Ø3.9	1.5	360°(4 Way)	300,000	20000 Lux	150°	
CF10-39024	10.1"	Ø3.9	2	360°(4 Way)	300,000	20000 Lux	150°	
CF10-39034	10.1"	Ø3.9	3	360°(4 Way)	300,000	20000 Lux	120°	Side View for Option
CF10-60014	10.1"	Ø6	1.5	360°(4 Way)	1MP	80000 Lux	150°	
CF10-60024	10.1"	Ø6	2	360°(4 Way)	1MP	80000 Lux	150°	
CF10-60034	10.1"	Ø6	3	360°(4 Way)	1MP	80000 Lux	120°	