2.Powerful Performance

High-Precision 3D Measurement Function (Optional Advanced Configuration)

The system can be upgraded to a 3D measurement system, compatible with 4mm, 6mm, and 8mm insertion tubes. It supports various measurement modes, including Length, Vertical, Depth, Multisegments, Area, Missing corner, Sectional,Circles,Gap, with measuring accuracy of 0.01mm and errors≤5%.

Large-Capacity Storage

The system features built-in high-capacity storage (standard 16GB, with optional 32GB or 64GB). Equipped with two USB ports, it allows for easy connection to external USB drives, ensuring quick and convenient data access.

Ability to connect the computer and transmit data.

HDMI output

Internal storage
Standard **16G**
Optional **32/64G**

Display real-time picture on the screen and external monitor at the same time

①

②

Equipped with two USB ports for external U disk

3.Technical Specification

● Standard ○ Optional - Not available

Host System

Host System		
Display type	LCD touch display	
Display size	5.5-inch	
Resolution	1280*720	
Detachable design	●	
User interface	Navigation via touchscreen and physical buttons	
Standard storage capacity of the host	16G	
Expandable memory capacity	●	
Photography function	●	
Image storage format	JPG/BMP	
Video recording function	●	
Video storage format	MP4	
Real-time image magnification	1-5 times (supports multi-touch pinch-to-zoom gestures)	
Adjustable LED brightness levels	Levels0-9	
Image quality adjustment	Adjust image brightness, contrast, hue, saturation, sharpness, gamma, and restore to default	
Image color adjustment	Optional modes include default, monochrome, negative, vivid, high contrast, soft	
Manual adjustment of display brightness	●	
Image rotation	●	
Image freeze	●	
Mirroring	●	
Real-time image comparison	●	
Time watermark	●	
Location watermark	●	
Custom report	●	
Ruler	No scale, circular scale, cross scale, or reference lines	
Bluetooth	●	
WiFi	●	
File sharing	●	
LAN Video streaming	●	

Output Port / Size specifications

Output Port		Size specifications	
HDMI video output port	●	Host size	295mm*145mm*163mm
3.5mm audio output	○	Packaging size	480mm*428mm*200mm
USB 2.0 port	2	Host weight(including battery)	≤1.5kg

Insertion Tube System

Insertion Tube System	
Tip diameter(±0.1mm)	0.95 /1.2/ 1.6/ 1.8/ 2 /2.8 /3.9/ 4.8/ 6 /8mm
Insertion tube length	1m~10m optional (measurement function only supports insertion tubes with a diameter of over 4mm)
Depth of field (mm)	5-50/5-100/10-100/50-∞
Field of view	70° / 80° / 100° / 120°*
Camera pixels	160K/300K/1M/2M*
Replaceable insertion tube	●
Replaceable lens	○
View direction	Direct view/side view/dual view
Lighting mode	Front LED/rear-mounted LED + optical fiber
Lighting source	White light/infrared/ultraviolet
Tip guidance control	Mechanical 360° all-way articulation
Tube unidirectional bending angle	≥160°*
Tip material	Super hard alloy protective shell
Insertion tube material	Tungsten wire wear-resistant braided tube
Dustproof and waterproof rating	IP67

Power Parameters

Power Parameters	
Power input	INPUT: 220±10%V 50Hz mains electricity
Output	OUTPUT:12V 3A
Host battery capacity	3000mAh 7.4V
Handle battery capacity	3200mAh 7.4V
Continuous working time	≥6h

3.Technical Specification

● Standard ○ Optional - Not available

Host System

Host System		
File management	Setting storage path/creating/renaming folders Full-screen viewing/image zooming/ deleting/renaming/viewing details/sharing/moving images or video files, etc.	
Image zoom	Up to 5x magnification (supports multi-touch pinch-to-zoom gesture)	
Image editing	Text annotation, doodling feature (supports handwritten lines, arrows, boxes, circular markings, text annotations, brush color and thickness settings)	
User permission management	Administrator, guest, standard user	
Menu language/ input method	More than ten languages including Simplified Chinese, Traditional Chinese, English,	
	Japanese, Korean, French, German, Portuguese, Spanish, Russian, Italian, and Dutch	
3D measurement system(optional)	9 measurement methods: Length,Vertical,Depth,Multisegment,Area, Missing corner,Sectional,Circle and Gap.3D measurement accuracy 0.01mm,Measurement error ≤5%	
Host dustproof and waterproof rating	IP55	

Operating Environment / Accessories

Operating Environment		Accessories	
System working temperature	-20°C-60°C	Standard	Instrument case,32G U disk,Power adapter,HDMI cable,Stand
Tip working temperature	-25°C-100°C		
Storage temperature	-40°C-60°C	Optional	Pipe centralizer,Rechargeable lithium battery
Relative humidity	Not greater than 95%, no condensation		

Personalized Customization

Personalized Customization	
Insertion tube materials, lengths, diameters, and lighting mode can be customized as required	○
Insertion tube can be added with a graduated scale	○
Lens customizable	○
Software customizable	○
*For specific parameters (such as illuminance, depth of field, resolution, field of view, working length, bending angle, etc.) and other requirements, contact relevant personnel for confirmation.	

Website   TikTok

COANTEC

CoantecNDT ®

Coantec **X3** series

High Performance Multifunctional Industrial Videoscope

Explosion-proof Certificate Number:SYEx21.11248
Explosion-proof Mark:Ex ib II B T4 Gb

- Integrated mechanical handheld design
- Detachable HD touchscreen with built-in battery
- Compatible with multiple specifications of insertion tubes
- Quick-release insertion tube replacement structure
- Configurable with various light sources
- Replaceable lenses with varying focal lengths
- High-frame-rate image sensor
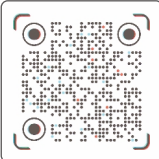- Dual-power supply for ultra-long endurance

The quick-release structure allows the insertion tube to be replaced in only 3 seconds.

X3 Check the engine gears

1.Brief Introduction

The X3 series is a high-performance, multi-purpose industrial videoscope independently developed by Coantec. It features a high-definition industrial camera and a 5.5-inch LCD touchscreen, delivering true-to-life colors and clearer inspection images.

With an optional high-frame-rate image sensor, the video playback is smoother, eliminating afterimages and frame stuttering. The handheld integrated design and mechanical control probe allow 360° flexible articulation in all directions.

The quick-release tube replacement mechanism enhances convenience, while interchangeable cameras and configurable lighting options—including white light, infrared light, and UV light—provide versatility for different inspection needs. The storage capacity can be expanded, and the battery life is significantly extended compared to previous models.

The X3 series is ideal for industries such as aviation, aerospace, automotive, railways, marine, energy, petrochemicals, power generation, and specialized inspections.

2.Powerful Performance

Mechanical Handheld Integrated Design

The ergonomic handheld design ensures a comfortable grip for extended use. Featuring a mechanically controlled joystick, it offers precise probe articulation, responsive control with no delay, and an enhanced user experience. Lightweight and portable, it allows for quick and efficient inspections anytime, anywhere.
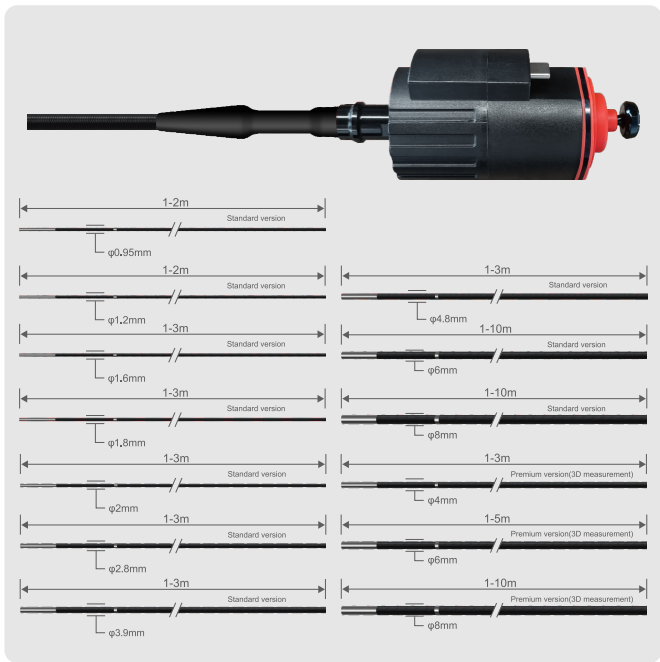
High-Quality NDT Imaging

Equipped with a megapixel high-definition camera, a built-in high-sensitivity image sensor, and a 5.5-inch HD LCD touchscreen, this system delivers sharp, detailed images with smooth and true-to-life visuals. It enables precise detection of subtle surface defects inside equipment and components.

5.5-in
LCD display | Smooth image | Sensitive touch screen

Compatible with Various Insertion Tube Specifications

A single host can be paired with insertion tubes of different specifications, with customizable length, diameter, and lighting options to meet specific requirements. This flexibility helps optimize costs while ensuring adaptability for various inspection needs.

Quick-Release Tube Replacement Design

Featuring a quick-release design, the tube can be replaced effortlessly without disassembling the nut. Simply turn the lock ring clockwise or counterclockwise to lock or release the tube in just 3 seconds, ensuring fast and efficient replacement.

LOCK
LOCK
UNLOCK
With tube quick-replacement structure
Rotate the lock ring clockwise/counterclockwise
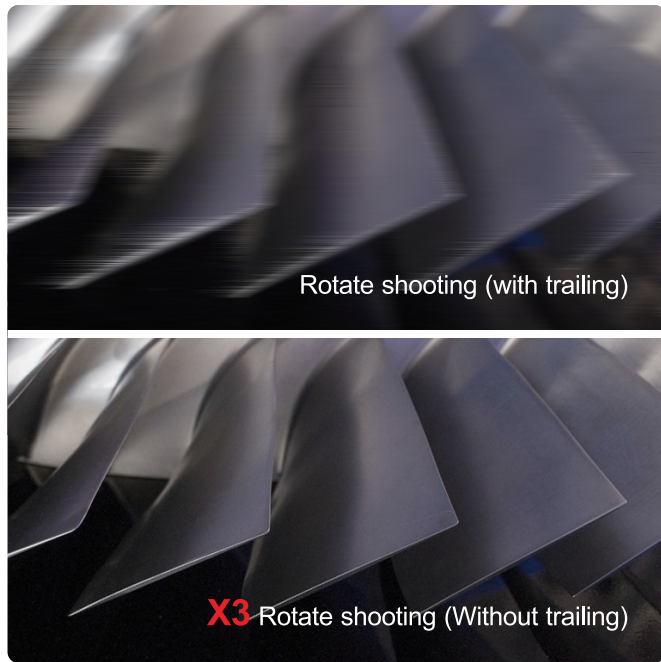

2.Powerful Performance

Configurable with Multiple Lighting Sources

Supports three auxiliary lighting options: infrared, white, and UV light. Two sources can be selected simultaneously (default: white and infrared light) to enhance illumination. The supplementary lighting improves visibility, ensuring higher-quality inspection images.

Note: Please consult the relevant personnel of our company for the configuration scheme of the lightsource of the detection tubes.

X3 is not only a videoscope, but also can be used as a flashlight and infrared aid.

Option 1	Option 2	Option 3
White light + Infrared light	White light + UV light	Infrared light + UV light

Interchangeable Camera Tips with Various Focus Options

The system supports replaceable camera tips with different specifications, including forward-view, side-view, far-focus, close-focus, medium-focus, wide-angle, telephoto, and measurement cameras. This adaptability allows for inspection at varying distances, ensuring clearer and more precise imaging.

Close focus camera
Medium focal camera
Telephoto camera
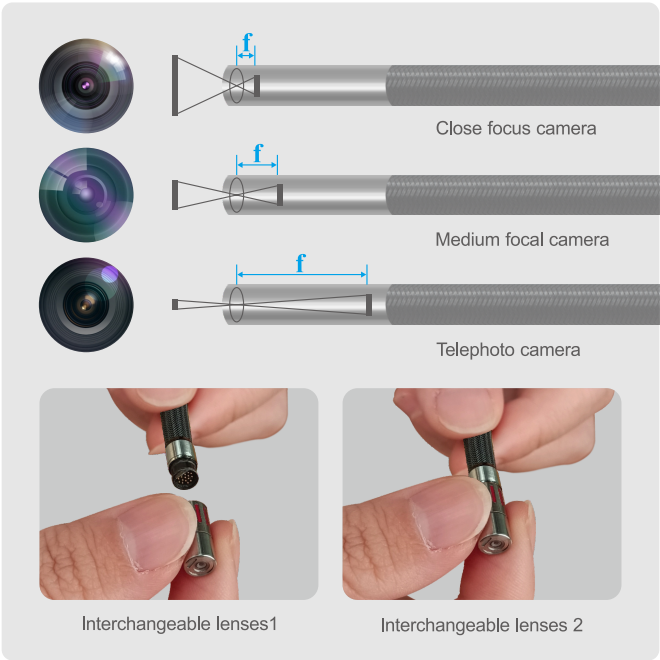Interchangeable lenses1 | Interchangeable lenses 2

Optional High-Frame-Rate Image Sensor

With a faster response speed than standard image sensors, this option delivers smoother visuals while significantly reducing lag, afterimages, and jitter. It enhances the clarity of rotating or fast-moving objects, making inspections more precise and efficient.

Rotate shooting (with trailing)
X3 Rotate shooting (Without trailing)

Dual Power Supply for Extended Battery Life

The system features a dual power supply, combining a built-in high-capacity lithium polymer battery in the display and a replaceable backup battery in the handle. These batteries can charge each other, ensuring extended operation with a continuous working time of over 6 hours.

7.4V
3000mAh
Host battery (non-removable)

INPUT: 220±10%V 50Hz
OUTPUT: 5V 3A
Host battery + Backup battery ≥6 hours

7.4V
3200mAh
Handle backup battery(removable)