

BIPOL

B5M

Stereo measurement Videoscope

The B5M Series is a high-performance industrial videoscope engineered for demanding visual inspection applications where image quality, reliability and operational flexibility are essential.

Combining high-definition imaging, powerful LED illumination and advanced image processing, the B5M Series delivers sharp, detailed images and videos for accurate assessment of internal surfaces, components and hard-to-reach areas.

Its modular architecture allows quick replacement of the insertion probe and touchscreen display, minimizing downtime, simplifying maintenance and providing maximum flexibility for different inspection requirements.

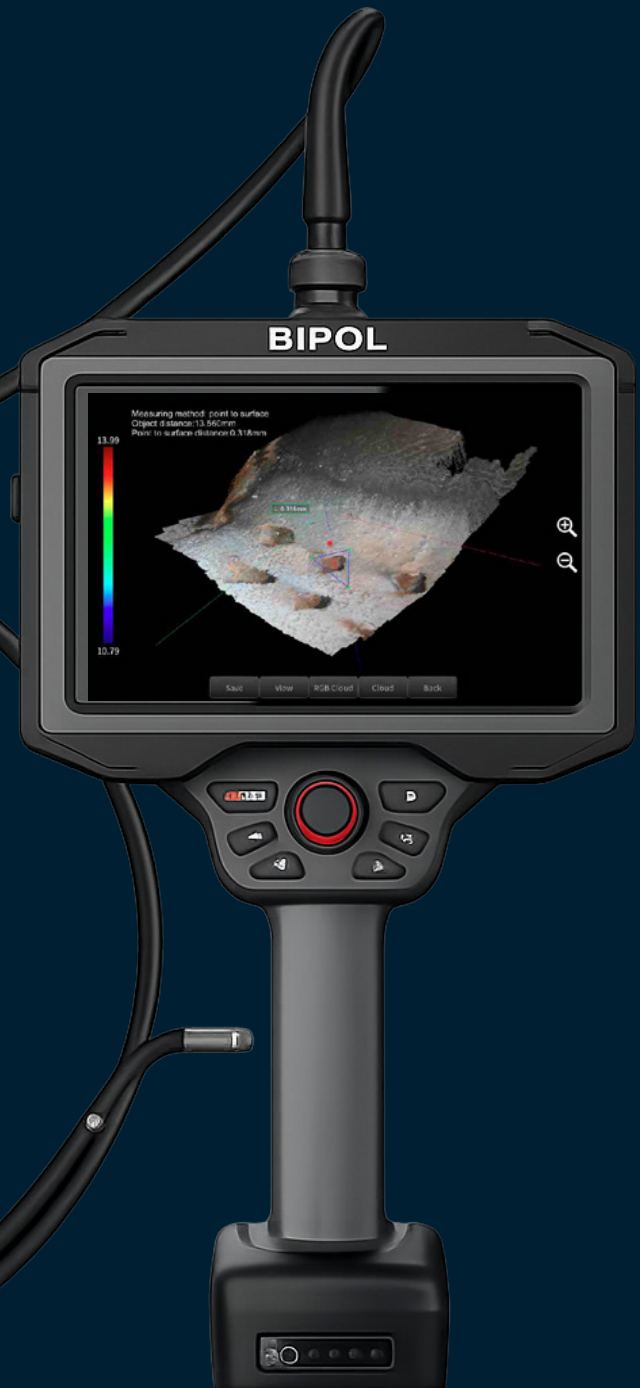
A major advantage of the B5M Series is its calibration-free design: the system requires no periodic calibration throughout its service life, significantly reducing maintenance requirements, operating costs and equipment downtime.

A unique dual power supply system provides up to 6 hours of operating time, ensuring reliable performance during extended inspection sessions.

With its comprehensive software functions and advanced inspection capabilities, the B5M Series can be configured for a wide range of industrial applications, helping operators improve inspection efficiency, traceability and reliability.

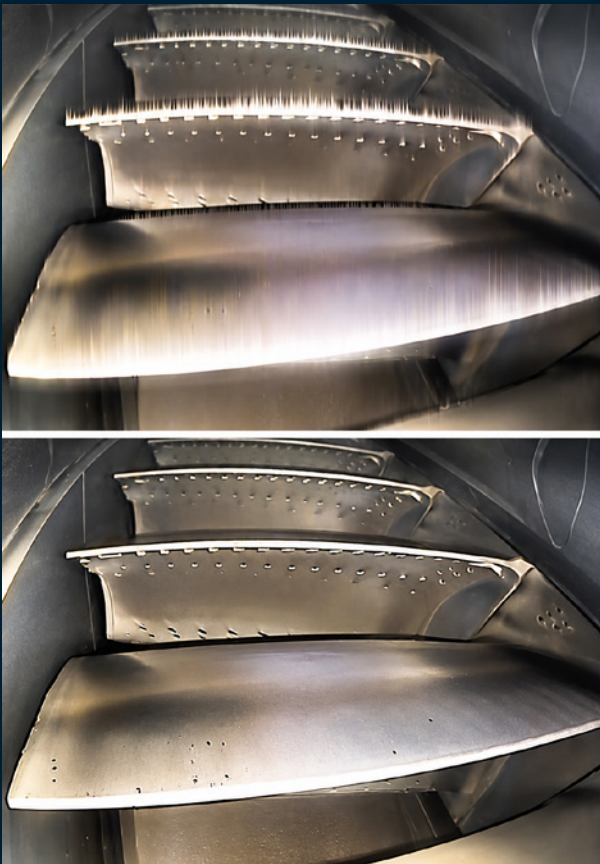
Typical applications include:

- Aviation & Aerospace
- Automotive
- Railway
- Marine & Shipbuilding
- Energy & Power Generation
- Petrochemical Industry
- Defense
- General Industrial Inspection



● Advanced Performances

Equipped with a high-sensitivity CMOS image sensor and advanced image processing algorithms, the system delivers crystal-clear HD images and videos. A high-intensity LED illumination system combined with optimized digital image enhancement ensures outstanding brightness, sharpness, and contrast, allowing reliable detection of fine defects, cracks, corrosion, wear, and other critical surface anomalies within complex components and confined spaces.



ELECTRICALLY CONTROLLED ARTICULATION

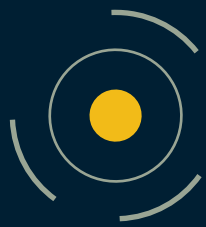
Designed for demanding industrial environments, the ergonomic handheld control unit provides exceptional comfort and precision during extended inspections. The responsive 360° electric joystick enables smooth, accurate all-direction articulation with virtually no latency, ensuring intuitive probe navigation, faster inspections, and improved operator control even in hard-to-reach areas.



7" IPS FULL LAMINATION
HD TOUCH SCREEN

LARGE HIGH RESOLUTION LCD SCREEN

The B5M videoscope features a large 7" high-resolution IPS touchscreen, delivering exceptional image clarity, contrast and detail for demanding visual inspections. The generous display area and intuitive touch interface provide comfortable viewing and quick access to advanced inspection, image processing and measurement functions.



Versatile inspection system

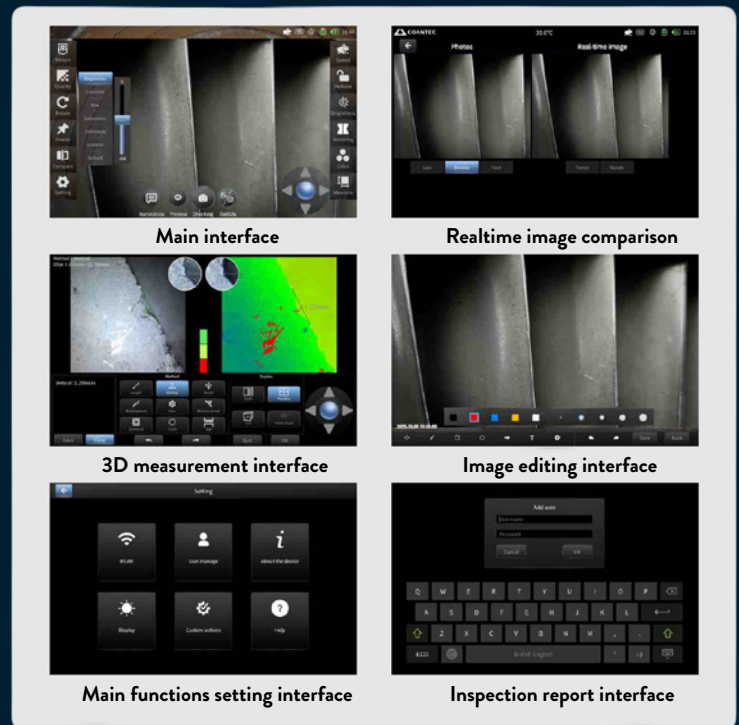
INTERCHANGEABLE VIDEO PROBES

The 3D measurement version can be delivered with probes $\varnothing$ 4.0, 6.0 or 8.0mm. The host also accepts standard probes with diameter starting at 0.95mm.



POWERFUL FUNCTION, SIMPLE INTERFACE

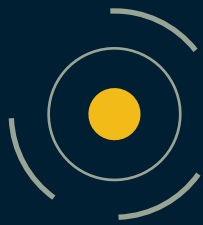
Simple new UI interface that offers pictures, videos, virtual rocker operation, speed and slow adjustment, brightness, file management, real-time comparison, report generation, wireless connection (can be removed on demand)



INTERCHANGEABLE TIPS 0° & 90°

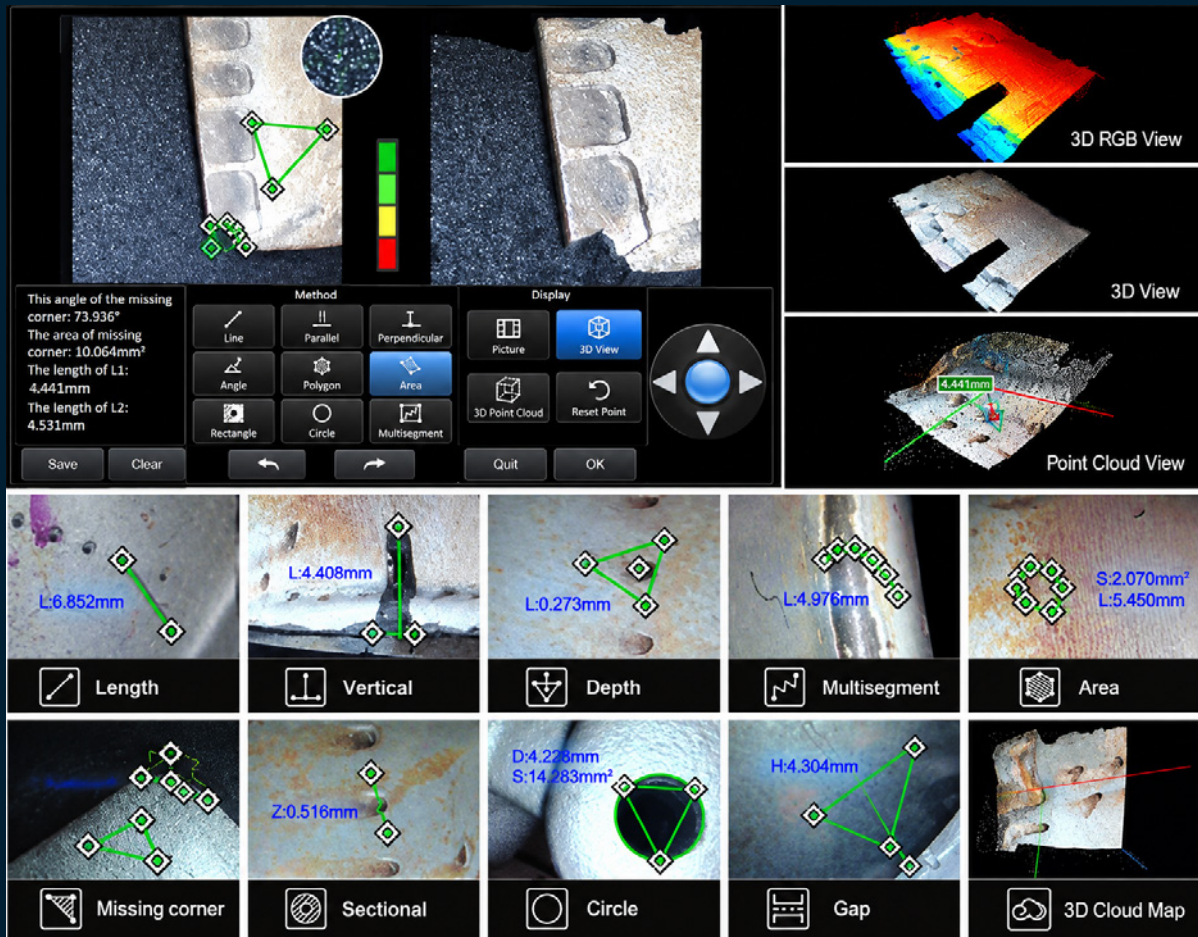
All probes accept tips 0° or 90° that can be changed depending on inspection requirements. This allows accurate measurement of side cracks in pipes, wing structures, turbines, pales, and so on.





Advanced 3D measurement

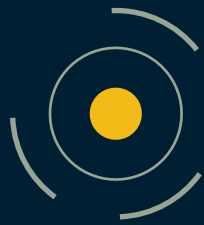
The B5M 3D Measurement system provides a comprehensive range of measurement tools for accurate dimensional analysis and defect assessment directly from the inspection image. Measurement points can be positioned precisely on the inspected surface, while results are displayed directly on screen for immediate evaluation. our system does not require routine calibration.



Available measurement functions include:

- Length – distance between two selected points.
- Vertical – perpendicular distance from a point to a reference line.
- Depth – measurement of the depth or height of a surface feature.
- Multisegment – cumulative measurement along multiple connected segments.
- Area – surface area and perimeter measurement of a selected region.
- Missing Corner – dimensional assessment of missing or damaged corner geometry, including angle, area and length.
- Sectional – cross-sectional analysis for evaluating surface profiles and dimensional variations.
- Circle – measurement of circular features, including diameter/radius and area.
- Gap – measurement of gaps, clearances or distances between features.
- 3D Point Cloud – three-dimensional visualization and analysis of the inspected surface.

The system also provides 3D View, 3D RGB View and Point Cloud View, enabling operators to visualize surface geometry from different perspectives and improve the assessment of defects such as cracks, material loss, deformation, corrosion, wear and surface damage.



Long lasting and wear resistant

DUAL POWER, LONG ENDURANCE

The B5M is equipped with a dual battery (one in the screen and one in the handle) that offers mutual recharging and can increase work time up to 6 hours.

Fall proof, rugged carrying case military grade. Anti slip protection for host and battery. Our system is made to last



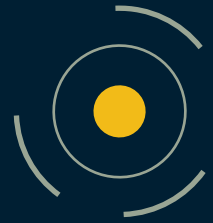
CASE DIMENSIONS.
550X350X240 MM
GROSS WEIGHT. 7 KG



AMONG THE SERVICES THAT ARE OFFERED BY OUR COMPANY

- 12 & 24 MONTHS WARRANTY EXTENSIONS
- PREVENTIVE MAINTENANCE CONTRACTS
- REPAIR SERVICE
- IN THE EVENT OF IMMOBILIZATION OF THE PRODUCT FOR REPAIR- SHORT TERM RENTING SERVICE

Technical data



Host System	B5M (Standard Inspection Version)	B5M Pro (Premium 3D Measurement Version)
Display specifications	Brand new IPS HD touch screen	
Display size	7-inch	
Display resolution	1920*1200	
Removable display	●	●
User interface	Menu navigation via touchscreen, physical buttons, and joystick	
Host storage capacity	Default 16GB, expandable up to 128GB	
Host operating memory	Standard 2GB, expandable up to 4GB	
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	Levels 0-9	
Image color adjustment	Adjust image brightness, contrast, hue, saturation, sharpness, gamma, and restore to default	
Manual adjustment of display brightness	●	●
Image modes	Optional modes include default, monochrome, negative, vivid, high contrast, soft	
Image rotation	●	●
Image freeze	●	●
Mirroring	●	●
Real-time image comparison	●	●
Time watermark	●	●
Location watermark	●	●
Virtual joystick	●	●
Generate report	●	●
Ruler	No ruler, circular ruler, cross ruler, or reference line	
Bluetooth data transmission	●	●
WiFi data transmission	●	●
Battery Level Monitoring (Available in Power On/Off States)	●	●

Output Port	Size specifications
HDMI video output port	1 Host size 350mm*197mm*126mm
3.5mm audio output	1 Packaging size 551mm*351mm*240mm
USB 3.0 port	2 Host weight (including battery) 2.1kg
Type C (Data transfer only, not for charging)	1

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	5-50mm / 5-100mm / 10-100mm / 50mm-∞
Field of view	70° / 80° / 100° / 120°*
Camera pixels	160K / 300K / 1M / 2M / 5M*
Replaceable insertion tube	●
Replaceable lens	●
View direction	Direct view / side view / dual view
Lighting source	Front LED / rear-mounted LED + optical fiber
Light source type	White light / infrared / UV
360° all-way articulation	●
Electric Probe guidance control	●
Tube unidirectional bending angle	≥160°*
Probe movement speed	Fast / slow speed adjustable
Probe lock / release function	●
Tip material	Super hard alloy protective shell
Insertion tube material	Tungsten wire wear-resistant braided tube
Dustproof and waterproof rating of insertion tube	IP67

Operating Environment	
System working temperature	-20°C~60°C
Tip working temperature	-25°C~100°C (temperature alarm optional)
Storage temperature	-40°C~60°C
Relative humidity	Not greater than 95%, no condensation

● Standard ○ Optional - Not available

Host System	B5M (Standard Inspection Version)	B5M Pro (Premium 3D Measurement Version)
File operations	Full screen viewing of images/image zoom/delete/rename/rotate/doodle, etc.	
Image zoom	1-5 times zoom (supports multi-touch pinch-to-zoom gestures)	
File 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 (created by the administrator)	
Menu/input language	More than ten languages including Simplified Chinese, English, Japanese, Korean, French, German, Portuguese, Spanish, Russian, Italian, and Dutch	
3D measurement system	-	9 measurement methods: Length, Vertical, Depth, Multiview, Area, Missing corner, Sectional, Circle and Gap, 3D measurement accuracy 0.01mm, Measurement error ≤5%
Secondary measurement	-	●
Remote sharing of images and videos	●	●
Video live streaming	●	●
Online upgrade	●	●
Host dustproof and waterproof rating	IP55	

Power Parameters	
Power input	INPUT: 220±10%V 50Hz mains electricity
Output	OUTPUT: DC15V 6A
Fast charging	Charging for 5 minutes allows for half an hour of use; a full charge takes 50 minutes
Host battery capacity (non-removable)	Voltage: 7.4V, capacity ≥5000mAh
Handle battery capacity (removable)	Voltage: 7.4V, capacity ≥5,000mAh
Continuous working time of host	≥6h

Accessories	B5M (Standard Inspection Version)	B5M Pro (Premium 3D Measurement Version)
Dedicated instrument case	●	●
USB flash drive	○	○
Power adapter	●	●
Centering device	○	○
Battery pack	○	○
Shoulder strap	●	●
Seat charger	●	●
HDMI cable	●	●

Personalized Customization	B5M (Standard Inspection Version)	B5M Pro (Premium 3D Measurement Version)
Insertion tube lengths, diameters, and lighting modes can be customized as required	○	○
Optional laser lighting mode	○	○
Insertion tube can be added with a graduated scale	○	○
Software customizable	○	○
Display customizable	○	○
Lens 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.