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# VRScope C65-M high-precision multi-functional industrial videoendoscope



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#### **Features**

- Powerful stereo measurement tools
- Industrial 6.5-inch HD LCD touch screen
- Industrial HD camera with resolution 1,000,000 pixels
- High speed video recording
- Super-bright LED backlight
- Sensitive joystick and probe with 360° rotation
- High temperature alarm indicator
- Quick creation of inspection reports

#### **Brief description**

The VRScope C65-M are high-resolution videoendoscopes with a high-resolution display for stereo measurements manufactured by Coantec. The videoscope has a 6.5-inch high-resolution touchscreen display, a high-resolution industrial video camera and an excellent image sensor conveying excellent image quality and extremely accurate colors of the inspected object. The VRScope C65-M allows you to measure point-to-point, point-to-line, point-to-surface distance, depth and area with high accuracy. The sensitive joystick allows you to control the distal end with high accuracy. VRScope C65-M is applied in aviation, space industry, electric power, chemical industry, mechanical engineering, automotive industry, military industry, designed for special inspection, etc.

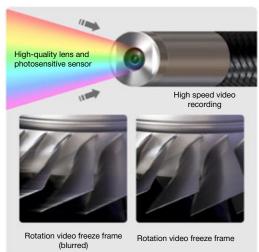


#### **Efficiency features**

#### **High-quality images**

The VRScope C65-M features a high-resolution 6.5-inch touchscreen display, a 1-megapixel industrial video camera and a built-in high quality image sensor. A clear, smooth, detailed image allows you to quickly and reliably detect minor defects.





### Industrial 1,000,000 pixel HD camera

Thanks to the high-quality built-in sensor, the resulting image is sharper and smoother, rich in detail. Video at 60 frames per second is smoother and more accurate, with no lags or jerks for quick detection of small defects.

## High-precision stereo measurement function

Equipped with a stereo measurement function for detected defects to ensure objectivity during endoscopic inspection. The distance from point to point, from point to line and from point to surface (depth) is measured, as well as a broken line of several segments and the area of a closed domain. The measurement accuracy is achieved up to 0.01 mm with an error of less than 10%.





#### Photo processing function

Users can zoom in, zoom out, resize, delete, rename image files, add watermarks, make handwritten notes, and perform other operations on photos. In the handwritten notes window, you can select the symbol format, add text and graphic notes.

#### **Efficiency features**

#### **Functional sensitive joystick**

The ergonomic design is easy to use, the functions are controlled via the touch screen and hotkeys on the control unit. The sensitive joystick allows you to control the distal end of the probe with high precision, with zero delay, quickly and smoothly guiding it to the object of inspection and fixing it in the desired position. Convenient probe control reduces fatigue during prolonged examinations.







# Interchangeable probes for any inspection task

The device has a lightweight design and is equipped with a quick-release shoulder strap for easier carrying and operation, which completely relieves the load on inspectors. The ergonomic handle is easy to hold and manipulate. The set includes a specialized case that is shockproof and shock-resistant, more abrasion resistant and durable.

#### **High-strength probe**

The probe is made of high-strength tungsten braid, rotates 360°, has a degree of dust and water resistance of the probe - IP67, corrosion resistance, high wear resistance. Contact with machine oil, light petroleum products and 5% salt solution is allowed.





#### **Super-bright LED backlight**

It allows you to obtain high brightness and image resolution of monitored items, identify defects in dark areas and illuminate large spaces.

#### **Efficiency features**



# The function of automatically rotating the image with the "C" gesture

The VRScope C65-M is equipped with a position sensor and the image can be automatically rotated using the "C" gesture so that it is always at the best angle for the operator to view.

#### Lightweight, portable and reliable

The device has a lightweight design and is equipped with a quick-release shoulder strap for easier carrying and operation, which completely relieves the load on inspectors. The ergonomic handle is easy to hold and operate the probe. Rigid compact case for safe transportation of equipment. It is located in the upper luggage compartment of the aircraft.



### **Technical specifications**

OPERATING PART (PROBE)											
Model		VRScope C65 - 4020M	VRScope C65 - 4030M	VRScope C65 - 6020M	VRScope C65 - 6030M	VRScope C65 - 6040M	VRScope C65 – 6050M	VRScope C65 - 8050M	VRScope C65 – 6070M	VRScope C65 - 8070M	VRScope C65 – 80100M
Operating part (probe)	Probe diameter	ø 4,0 mm		ø 6,0 mm			ø 8,0 mm	ø 6,0 mm	ø 8,0 mm	ø 8,0 mm	
	Probe length	2,0 m	3,0 m	2,0 m	3,0 m	4,0 m	5,0 m	5,0 m	7,0 m	7,0 m	10,0 m
	Outer braid	High-strength tungsten braid									
	Probe flexibility	Uniform rigidity									
	Interchangeability	Possible for all probe models									
	Temperature sensor	2-stage indicator for high temperature alarm									
Bendable part	Bending angle up/ down/ right/ left	up to 150°	up to 130°	up to 150°	up to 130°	up to 130°	up to 110°	up to 110°	up to 90°	up to 90°	up to 90°
	Bending mechanism	360° electronic control of the distal bend with a joystick									
Approximate system weight (including battery)		≤2,8 kg									
Lighting		Super-bright LED backlight									
Direct view optical system (D)	Field of view	85°		120°				100°			
	Depth of focus for stereo measurements	5 to 100 mm		7 to 150 mm		8 to 80 mm					
	Depth of focus for inspection	5 mm to ∞		7 mm to ∞			8 mm to ∞				
	Lens type	Built-in for stereo measurements and inspection, without replacing lenses									
Optical side vision system (S)	Field of view	70°									
	Depth of focus for stereo measurements	5 to 100 mm		7 to 150 mm				8 to 80 mm			
	Lens type	Built-in for stereo measurements and inspection, without replacing lenses									
	Depth of focus for inspection	unavailable		7 mm to ∞				8 mm to ∞			
	Lens type	Interchangeable optical									

FEATURES				
Dimensions (WxDxH)		405 x 137x 178 mm (without protruding parts)		
Transport case dimensions		560 x 355 x 230 mm. The hand luggage size of most airlines.		
Display		6.5-inch high-definition LCD touchscreen with wide angle of view.		
Display resolution		H1280 x V720 (pixels)		
LCD brightness levels		220± 10% V, 50 Hz with AC adapter		
Power supply	AC network	11.1 V, 6,600 mAh. Battery life: >4 hours.		
	Battery	Mini HDMI (standard)		
Video output standard		3.5mm audio output socket (optional)		
Headset (microphone input/ audio output)		3.5mm audio output socket		
SOFTWARE FEATURES				
Image functions		5x digital zoom and full screen display mode / image centering, 9-step brightness adjustment		
Dynamic noi	ise suppression	In real time to improve image quality		
Image magnification		5x magnification during examination. Supports enlarging the image while viewing photos via the "pinch" gesture of the touch display		
Functional modes		Reference color mode, black and white mode, negative mode, high color density modes		
Rotate images		0°, 90°, 180°, 270° rotation		
Annotations		Lines, arrows, rectangles, circles, text		
Menu languages		Chinese, English, French, Russian.		

RECORDING CONTR	ROL FEATURES					
	RAM	TF card, 32 GB				
Information media	Data storage memory	Time/ date				
	Optional	H1280x V720 (pixels), 1,000,000 pixels				
Watermark settings		Compression format: JPEG / BMP				
	Resolution	Image capturing supported while video recording				
Static image recording	Recording format	H1280x V720 (pixels), 1,000,000 pixels				
recording	Image recording	MPEG 4				
	Resolution	30 fps /60 fps (for probes up to 3.0 m in length)				
Video recording	Recording format	MPEG 4				
	Frame rate	30 fps/60 fps (for probes up to 3.0 m in length)	30 fps			
STEREO MEASURE	MENT FUNCTIONS	The distant				
Distance		The distance between two points				
Dot-to-line		Perpendicular distance between a point and a user-defined line				
Depth/Height		Perpendicular distance between a point and a user-defined plane				
Area/Lines		Measurement of the perimeter and area of the zone bounded by segments of broken lines				
Linear dimensions measurements		0,29 to 25.00 mm 0,4 to 20.0 mm				
Depth measurements  Permissible error limits		0,4 to 20.0 mm 10%				
OPERATING CONDI			10 70			
Operating temperature	Operating part (probe)	for 0 4.0 mm: -20 °C to 60 °C for 0 6.0 mm and 8.0 mm: -20 °C to 80 °C				
temperature	Main unit	-20°C to 55°C				
Storage temperature		-20°C to 60°C				
Relative humidity		15 to 90%				
Resistance to liquid aggressive media of the operating part (probe)		Contact with engine oil, light petroleum products and 5% brine is allowed together with a direct-view optical system				
Dust and water	Operating part (probe)	IP67				
resistance	Main unit	IP55				

#### COMPLIANCE WITH THE GJB MILITARY STANDARD

Туре	Method		
Low pressure resistance	GJB 150.2A-2009 "Environmental test methods in the military equipment laboratory, Part 2 Low pressure test (on the altitude)"		
High temperatures	GJB 150.3A-2009 "Environmental test methods in the military equipment laboratory, Part 3 High temperature test"		
Low temperatures	GJB 150.4A-2009 "Environmental test methods in the military equipment laboratory, Part 4  Low temperature test"		
Solar resistance	GJB 150.7A-2009 "Environmental test methods in the military equipment laboratory, Part 7 Sun radiation test"		
Waterproofness	GJB 150.8A-2009 "Environmental test methods in the military equipment laboratory, Part 8 Rain test"		
Humidity	GJB 150.9A-2009 "Environmental test methods in the military equipment laboratory, Part 9 Heat and humidity test"		
Resistance to fungal bacteria	GJB 150.10A-2009 "Environmental Test Methods in the Military Equipment Laboratory, Part 10 Low Temperature Test"		
Salt mist	GJB 150.11A-2009 "Environmental test methods in the military equipment laboratory, Part 11 Saline aerosol test"		
Sand and dust	GJB 150.12A-2009 "Environmental test methods in the military equipment laboratory, Part 12 Sand and dust testing"		
Acid mist	GJB 150.28-2009 "Environmental test methods for military equipment laboratories, Part 28  Test in an acidic atmosphere"		
Drop resistance	GB/T 2423.8-1995 "Environmental testing of electrical and electronic products, Part 2 Free drop test"		
Protection from dust and humidity	GB 4208-2017 "Shell protection level (IP code)"		



