

ø 3.9, 6.9 MM  
ARTICULATING VIDEO BORESCOPE

VJ



#### Features :

- Joystick-Controlled, 360 Degree Articulation
- Highly Durable and Flexible Insertion Tube
- Super High-Intensity LED Illumination
- 2X Digital Zoom
- Temperature Sensor
- Voice Recording
- LED Flash Function
- Battery Powered Operation
- True Portability in a compact Package
- Integrated Design, Essential Features
- Easy "Viewing / Capturing / Recording"

#### Delivering precise articulation control, portability and ease of use for following

##### Automotive :

OA/OC and assembly inspections for engines, frames, sub-assemblies and components.

##### HVAC :

Inspection of boiler tubes, heat exchangers, valves, pipe welds and ducts.

##### Industrial Machinery :

Inspection and repair of gear boxes, conveyors, hydraulic systems and engines.

##### Power Generation :

Turbine and reciprocating engine inspections, heat exchangers, pipe corrosion, weld integrity inspections.

##### Engineering / Construction :

Internal inspections of walls, ceilings and floors, Structural inspections of bridges, tunnels and foundations.

##### Water Treatment Facilities :

Corrosion and condition inspections of pipes, joints, valves and pressure vessels.

##### Research / Security / Other Fields :

Police, Military, R&D, education, food and chemical processing.

##### Railway / Shipping / Aviation :

Inspection and repair of turbine, gasoline and diesel engines, along with structural components, airframes and ground support equipment.



# Specifications

| Ø 3.9mm / Ø 6.9 mm Articulating Video Borescope VJ-ADV |   |  |  |
|--|---|--|--|
| Insertion Tube   | Outer Diameter  | Ø 3.9mm  | Ø 6.9 mm   |
|  | Length (meter/inch)                                     | 1.5m (59")   | 1.5m (59") / 3.0m (118") / *5.0m (197")  |
|  | Exterior  | Stainless Steel Braid  | Stainless Steel Braid  |
|  | Waterproof  | Insertion Tube and Tip   | Insertion Tube and Tip   |
|  | Chemical Compatibility                                  | Machine Oil, Heating Oil, Engine Oil, 3.5% Concentrated saltwater, Diesel Fuel                                     | Machine Oil, Heating Oil, Engine Oil, 3.5% Concentrated saltwater, Diesel Fuel                                   |
| Optics   | Field of View (HV)                                      | 70° / 70°  | 72° / 54°  |
|  | F No.   | F 5.3  | F 6.0  |
|  | Depth of Field  | 15mm ~ ∞   | 15mm ~ ∞   |
|  | Illumination Method                                     | 6 Super High-Intensity White LEDs  | 4 Super High-Intensity White LEDs  |
| Articulation   | Articulation Angle                                      | 360°(over 90°in every direction)   | 360°(over 90°in every direction)   |
|  | Articulation Control                                    | Joystick with "Direct Control" Mechanism   | Joystick with "Direct Control" Mechanism   |
|  | Rigid Distal End Length                                 | 13mm   | 15mm   |
| LCD Monitor  |   | 3.5 inch Color Digital LCD   | 3.5 inch Color Digital TFT   |
| Observation Function                                   |   | N/A  | 2x Digital Zoom  |
|  |   | N/A  | External Temperature Display (Celsius/Fahrenheit)  |
|  |   | N/A  | Temperature Alarm Display  |
| LED Output Adjustment                                  |   | 5 Levels   | 5 Levels   |
| Still Capture / Record Function                        |   | Still Image (No LED Flash Capturing)   | LED Flash Capturing (Still image)  |
|  |   | Time-lapse Recording (Video)   | Time-lapse Recording (Video)   |
| Input / Output Terminal                                | Video Output  | Ø 2.5m Stereo Mini Jack for RCA Video Output (NTSC/PAL)  | Ø 2.5m Stereo Mini Jack for RCA Video Output (NTSC/PAL)  |
|  | USB Output  | Mini B Terminal Ver. 2.0 Video Capture Output (Includes Driver / Viewer Software)                                  | Mini B Terminal Ver. 2.0 Video Capture Output (Includes Driver / Viewer Software)                                |
|  | Audio Output  | Monaural Flat Jack for Hands-free Earphone   | Monaural Flat Jack for Hands-free Earphone   |
|  | Microphone Input  | Monaural Flat Jack for Hands-free Microphone   | Monaural Flat Jack for Hands-free Microphone   |
| Storage  | Storage Media   | MicroSD Card (Max. 2GB)  | MicroSD Card (Max. 2GB)  |
|  | Still Image   | JPEG 400x400 pixels  | JPEG 640x480 pixels  |
|  | Video   | Motion JPEG (AVI file extension) 400x400 pixels 15~30fps Voice recording function via the attached microphone      | Motion JPEG (AVI file extension) 640x480 pixels 15~30fps Voice recording function via the attached microphone    |
|  | Storage Capacity (with 1GB MicroSD Card)                | Still Image : Max. 500 pictures Movie Recording Approx 60 minutes (Normal Mode) / Approx 9 hours (Time-lapse Mode) | Still Image : Max. 500 pictures Movie Recording Approx 60 minutes Normal Mode / Approx 9 hours (Time-lapse Mode) |
| Playback Function                                      |   | Still Image : Thumbnail 9-image Display/Full Screen Display Video : Play, Pause                                    | Still Image : Thumbnail 9-image Display/Full Screen Display Video : Play, Pause                                  |
| Menu Operation   | Image Adjustment (Brightness, Contrast, Hue, Sharpness) |  | Image Adjustment (Brightness, Contrast, Hue, Sharpness)  |
|  | Delete Stored Image                                     |  | Delete Stored Image  |
|  | Time and Date Setting                                   |  | Time and Date Setting  |
|  | Language : Japanese/English                             |  | Language : Japanese/English  |
|  | USB Mass Storage  |  | USB Mass Storage   |
| Operating Temperature (Insertion Tube)                 |   | In Air:-30°C~60°C (-22°F~140°F)<br>In Liquid : 10°C~30°C (50°F~86°F)   | In Air:-30°C~60°C (22°F~140°F)<br>In Liquid : 10°C~30°C (50°F~86°F)  |
| Power Supply   | DC  | DC 6V (four AA alkaline batteries)   | DC 6V (four AA alkaline batteries)   |
|  | AC  | 100V~240V  | 100V~240V  |
| Operating Time   |   | Max. 1.5 hours (with four AA alkaline batteries)   | Max. 1.5 hours (with four AA alkaline batteries)   |
| Weight   |   | 480g (without batteries at 1.5m length)  | 570g / 20 oz (without batteries at 1.5m length)  |
| Carrying Case  |   | 495 x 420 x 145 mm (19 x 17 x 5 inch)  | 495 x 420 x 145 mm (19 x 17 x 5 inch)  |

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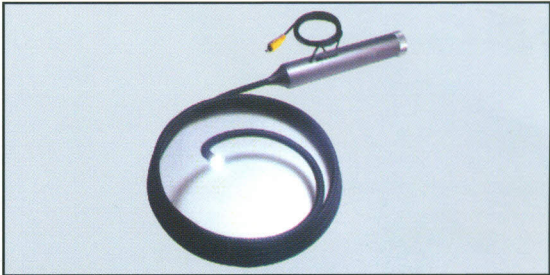
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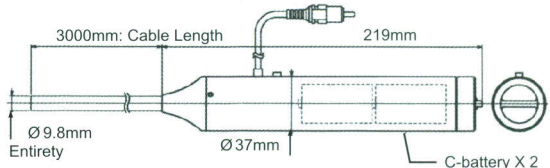
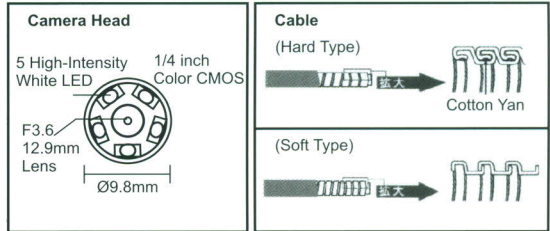
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| Ø 9.8 mm Wireless Video Borescope VB |                               |  |
|--------------------------------------|-------------------------------|--|
| Insertion Tube                       | Outer Diameter                | Ø 9.8 mm   |
|                                      | Length (meter/inch)           | Standard:: 3m(118")<br>Possible extension up to 30m (98'5")  |
|                                      | Armor                         | Polyurethane   |
|                                      | Waterproof                    | Insertion tube and tip   |
|                                      | Light Source                  | View Angle<br>63°/49°<br>Lens<br>F=2.9mm<br>F No.<br>F 3.6<br>Focal Distance<br>40mm(±10mm)<br>Luminance<br>7500mcd  |
| Camera                               | Image Sensor                  | 1/4inch CMOS   |
|                                      | Total Pixels                  | 811 (H) X 508 (V)  |
|                                      | Effective Pixels              | 768 (H) X 494 (V)  |
|                                      | Pixel Size (H X V)            | 7.86µm(H) X 6.25µm(V)  |
|                                      | Effective Sensor Size (H X V) | 3.6mm (H) X 2.7mm(V)   |
|                                      | Resolution                    | 525(H) X 480(V) TV   |
|                                      | Brightness                    | AGC 0 to + 24dB  |
|                                      | Normal Shutter                | AEC 1/60 sec to 1/15,000sec  |
|                                      | Hand-Piece                    | Signal System<br>NTSC (15.734kHz/59.94Hz)<br>Synchronizing<br>Internal Synchronizing<br>Wireless Output<br>1.2GHz microwave<br>Operating Temp<br>-10°C to 40°C<br>Video S/N Ratio<br>45dB<br>Power Supply<br>C-battery X2<br>Operating Time<br>10 hrs max.<br>Power Consumption<br>360mA<br>Weight<br>738g (1.6 lb) *Batteries are not Included. |
|                                      |                               |  |



## Structure



Inspired by dreams.  
**RF SYSTEM lab.**  
Nagano, Japan