

# XL Vu VideoProbe\*

Inspection Technologies

## BHGE's Versatile Video Borescope

The XL Vu VideoProbe from BHGE is equipped to handle a wide variety of remote visual inspection needs.



**BAKER  
HUGHES**  
a GE company



# Versatility Packed with Features

- StereoProbe\* and Comparison indication measurement
- Servomotor All-Way\* Probe articulation
- Sealed housings for Dust and Water ingress protection to IP55
- NEW 4.0 mm optics set for improved image quality and far focus general inspection.
- Transflective sunlight readable LCD
- Image and video capture in Full VGA resolution
- Integrated Temperature Warning system
- Probe operates up to 100°C to gain access faster in high temperature applications where cooling time is needed
- Automated inspection reporting and data tagging software (Menu Directed Inspection)
- Live on screen Tip Map aids inspectors in guiding the tip during inspection. A grid shows the tip direction and helps inspectors maintain orientation or better navigation.
- 4 GB Internal Flash memory
- 2 USB® 2.0 ports, VGA video out, headset/microphone port
- Two or four-hour Li-Ion battery
- Full tip optic interchangeability with secure double threads
- Shipping and storage case with integral probe reel included with system



## Portability

Our XL Vu VideoProbe system provides inspectors with unparalleled access—without a bulky base unit. Weighing as little as 1.77 kg (3.90 lb), the XL Vu VideoProbe system can easily “view anywhere.”

## Image Quality

BHGE's XL Vu borescope utilizes LED illumination to display excellent image quality. You can save clear, accurate still images and motion video to the internal flash memory or removable USB ThumbDrive™.



# Technical Specifications

## Operating Environment

<b>Tip Operating Temp:</b>	-25°C to 100°C (-13°F to 212°F) Reduced articulation below 0°C (32°F)
<b>System Operating Temp:</b>	-25°C to 46°C (-13°F to 115°F) LCD requires warm-up period below 0°C (32°F)
<b>Storage Temperature:</b>	-25°C to 60°C (-13°F to 140°F)
<b>Relative Humidity:</b>	95% max, non-condensing
<b>Waterproof:</b>	Insertion tube and tip to 14.7 psi (1 bar, 10.2 m of H <sub>2</sub> O, 33.5 ft of H <sub>2</sub> O)
<b>Environmental:</b>	IP55 Ingress Protection

## System

<b>Case Dimensions:</b>	48.8 x 38.6 x 18.5 cm (19.2 x 15.2 x 7.3 in)
<b>System Weight:</b>	
<b>In Case:</b>	6.50 kg (14.30 lb)
<b>Without Case:</b>	1.73 kg (3.80 lb)
<b>Power (Lithium Ion Battery):</b>	8.4 V, 38 Wh (2 hour) 8.4 V, 75 Wh (4 hour)
<b>Power Supply:</b>	<b>AC Input:</b> 100-240 VAC, 50-60 Hz, 1.5 A Max <b>DC Output:</b> 9.5 V, 6.0 A
<b>Construction:</b>	Polycarbonate housings with integrated Versalon™(JP) bumpers
<b>Dimensions:</b>	9.53 x 13.34 x 34.29 cm (3.75 x 5.25 x 13.50 in)
<b>LCD Monitor:</b>	Integrated transfective 9.40 cm (3.70 in) active matrix VGA color LCD with XpertBright, 640 x 480 resolution
<b>Joystick Control:</b>	360° All-Way tip articulation with XpertSteer, bump gesture, menu access and navigation
<b>Button Set:</b>	Access user functions, measurement and digital functions
<b>Audio:</b>	Integrated 2.5 mm headset/microphone jack
<b>Internal Memory:</b>	4 GB Flash memory
<b>Data I/O Ports:</b>	Two USB® 2.0 ports
<b>Video Port:</b>	VGA Video Out
<b>Brightness Control:</b>	Auto and Variable
<b>Illumination Type:</b>	White LED
<b>Long Exposure:</b>	Via auto and manual mode
<b>White Balance:</b>	Factory default or user defined

## Standards Compliance and Classifications

<b>MIL-STD-810G</b>	Tested to United States Department of Defense Environment Tests Sections 506.5, 507.5, 509.5, 510.5, 511.5, 514.6, 516.6, 521.3
<b>MIL-STD-461F</b>	Tested to United States Department of Defense Electromagnetic Interference RS103 - ABOVE DECK
<b>Standards Compliance</b>	Group 1, Class A: EN61326-1 UL, IEC, EN CSA-C22.2:61010-1 UN/DOT T1-T8
<b>IP Rating</b>	Tested to IP55

## Camera

<b>4.0 mm (0.157 in) Diameter Probes</b>	
<b>Image Sensor:</b>	1/10 inch Color SUPER HAD CCD camera
<b>Pixel Count:</b>	290,000 pixels
<b>Housing:</b>	Titanium
<b>6.1 mm (0.242 in) and 8.4 mm (0.331 in) Diameter Probes</b>	
<b>Image Sensor:</b>	1/6 inch Color SUPER HAD™ CCD camera
<b>Pixel Count:</b>	440,000 pixels
<b>Housing:</b>	Titanium

## Software

<b>Operating System:</b>	Real-time multi-tasking operating system
<b>User Interface:</b>	Simple drop-down menu-driven operation Menu navigation using articulation joystick
<b>File Manager:</b>	Embedded file manager software supporting: File & Folder creation, naming, deleting Store to internal Flash (C:\) or USB ThumbDrive Copy between USB and C:\ StereoProbe and Comparison
<b>Measurements:</b>	Provides user defined guided inspection Creates DICONDE compatible inspection files
<b>MDI Software (optional):</b>	Creates MS Word® compatible inspection reports PC compatible (.AAC) file format
<b>Audio Data:</b>	Invert, Zoom (5X digital)
<b>Image Control:</b>	Image Capture and Recall Continuous (5.0X)
<b>Digital Zoom:</b>	Bitmap (.BMP), JPEG (.JPG)
<b>Image Formats:</b>	MPEG 4
<b>Video Format:</b>	Built-in full screen text overlay generator
<b>Text Annotation:</b>	Supports international language character sets 100 text line capacity User placement of arrows
<b>Graphic Annotation:</b>	"Steer & Stay" articulation lock/fine articulation Tip
<b>Articulation Control:</b>	"Home" return to neutral forward-tip orientation User-selectable fine or coarse control XpertSteer probe articulation offers quick steering responsiveness for tight probe control - bump steering enables slight adjustments to probe position
<b>Software Updates:</b>	Field updateable via USB ThumbDrive
<b>Languages:</b>	English, Spanish, French, German, Italian, Russian, Japanese, Korean, Portuguese, Chinese, Polish

## Insertion Tube Length and Diameter Options

CAMERA DIAMETER	INSERTION TUBE WORKING LENGTH					
	2.0 m (6.6 ft)	3.0 m (9.8 ft)	4.5 m (14.8 ft)	6.0 m (19.7 ft)	8.0 m (26.2 ft)	10.0 m (32.8 ft)
4.0 mm (0.157 in)	2.0 m (6.6 ft)	3.0 m (9.8 ft)				
6.1 mm (0.242 in)	2.0 m (6.6 ft)	3.0 m (9.8 ft)	4.5 m (14.8 ft)	6.0 m (19.7 ft)	8.0 m (26.2 ft)	
8.4 mm (0.331 in)	2.0 m (6.6 ft)	3.0 m (9.8 ft)	4.5 m (14.8 ft)	6.0 m (19.7 ft)	8.0 m (26.2 ft)	10.0 m (32.8 ft)

## Tip Articulation

Insertion Tube Length	Straight Tube
2.0, 3.0 or 4.5 m	Up/Down - 160° min, Left/Right - 160° min
6.0 m	Up/Down - 140° min, Left/Right - 140° min
8.0 m, 10.0 m	Up/Down - 120° min, Left/Right - 120° min

**Note:** Typical articulation exceeds minimum specifications

## Tip Optics

Tip View (DOV)	Tip Color	Field of View (FOV) <sup>(1)</sup>	Depth of Field (DOF)	4.0 mm Optical Tip Part #	6.1 mm Optical Tip Part #	8.4 mm Optical Tip Part #
<b>Standard Tips</b>						
FORWARD	NONE	☒	80°	35 mm-infinity (1.38 in-infinity)	T4080FF	
FORWARD	BLACK	●	115°	4 mm-infinity (0.16 in-infinity)	T40115FN	
FORWARD	NONE	☒	50°	50 mm-infinity (1.97 in-infinity)		XLG3T6150FF <sup>(2)</sup>
FORWARD	WHITE	○	50°	12-200 mm (0.47-7.87 in)		XLG3T6150FG
FORWARD	ORANGE	●	80°	3-20 mm (0.12-0.79 in)		XLG3T6180FN
FORWARD	YELLOW	●	90°	20 mm-infinity (0.79 in-infinity)		XLG3T6190FF
FORWARD	BLACK	●	120°	5-120 mm (0.20-4.72 in)		XLG3T61120FG
FORWARD	BLACK	●	100°	5-120 mm (0.20-4.72 in)		
FORWARD OBLIQUE	PURPLE	●	50°	12-80 mm (0.47-3.15 in)		XLG3T6150FB
FORWARD	BLACK	●	120°	5-200 mm (0.20-7.87 in)		XLG3T84120FN
FORWARD	NONE	☒	40°	250 mm-infinity (9.84 in-infinity)		XLG3T8440FF <sup>(2)</sup>
FORWARD	WHITE	○	40°	80-500 mm (3.15-19.68 in)		XLG3T8440FG
FORWARD	YELLOW	●	80°	25-500 mm (0.98-19.68 in)		XLG3T8480FG
SIDE	BLUE	●	120°	6 mm-infinity (0.24 in-infinity)	T40120SF	
SIDE	RED	●	115°	1-30 mm (0.04-0.18 in)	T40115SN	
SIDE	BROWN	●	50°	45 mm-infinity (1.77 in-infinity)		XLG3T6150SF
SIDE	GREEN	●	50°	9-160 mm (0.35-6.30 in)		XLG3T6150SG
SIDE	BLUE	●	120°	4-100 mm (0.16-3.94 in)		XLG3T61120SG
SIDE	BLUE	●	100°	4-100 mm (0.16-3.94 in)		
SIDE	RED	●	80°	1-20 mm (0.04-0.79 in)		XLG3T6180SN
SIDE	GREEN	●	80°	18 mm (0.71 in-infinity)		
SIDE	BLUE	●	80°	5 mm (0.20 in-infinity)		
SIDE	BROWN	●	40°	250 mm-infinity (9.84 in-infinity)		XLG3T8440SF <sup>(2)</sup>
SIDE	GREEN	●	80°	25-500 mm (0.98-19.68 in)		XLG3T8480SG
SIDE	BLUE	●	120°	4-200 mm (0.16-7.87 in)		XLG3T84120SN
<b>StereoProbe Measurement Tips</b>						
FORWARD	BLACK	●	55°/55°	5 mm-infinity (0.2 in-infinity)	TM405555FG	
FORWARD	BLACK	●	60°/60°	4-80 mm (0.16-3.15 in)		XLG3TM616060FG
FORWARD	BLACK	●	60°/60°	4-50 mm (0.16-1.97 in)		XLG3TM846060FG
SIDE	BLUE	●	55°/55°	4 mm-infinity (0.16 in-infinity)	TM405555SG	
SIDE	BLUE	●	45°/45°	2-50 mm (0.08-1.97 in.)		
SIDE	BLUE	●	50°/50°	2-50 mm (0.08-1.97 in)		XLG3TM615050SG
SIDE	BLUE	●	60°/60°	4-80 mm (0.16-3.15 in)		
SIDE	BLUE	●	60°/60°	4-50 mm (0.16-1.97 in)		XLG3TM846060SG

<sup>(1)</sup> FOV is specified diagonally.

<sup>(2)</sup> Indicates tips with maximum brightness.

bhge.com



ISO 9001  
REGISTERED COMPANY



\*Denotes a trademark of Baker Hughes, a GE company LLC.

Other company names and product names used in this document are the registered trademarks or trademarks of their respective owners.

© 2018 Baker Hughes, a GE company LLC - All rights reserved.  
Baker Hughes reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your BHGE representative for the most current information. The Baker Hughes logo is a trademark of Baker Hughes, a GE company. The GE Monogram is a trademark of the General Electric Company.

GEA32604B 11/2018 | GEIT-65044EN

