

GE Oil & Gas

XL Vu VideoProbe^{*}

Inspection Technologies

GE's Versatile Video Borescope

The XL Vu VideoProbe from GE's Measurement & Control business is equipped to handle a wide variety of remote visual inspection needs.



Versatility Packed with Features

- StereoProbe* and Comparison indication measurement
- Servomotor All-Way* Probe articulation
- Sealed housings for Dust and Water ingress protection to IP55
- 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

GE'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

Tip Operating Temp:	-25°C to 100°C (-13°F to 212°F) Reduced articulation below 0°C (32°F)
System Operating Temp:	-20°C to 46°C (-4°F to 115°F) LCD requires warm-up period below 0°C (32°F)
Storage Temperature:	-25°C to 60°C (-13°F to 140°F)
Relative Humidity:	95% max, non-condensing
Waterproof:	Insertion tube and tip to 14.7 psi (1 bar, 10.2 m of H ₂ O, 33.5 ft of H ₂ O)
Environmental:	IP55 Ingress Protection

System

Case Dimensions:	48.8 x 38.6 x 18.5 cm (19.2 x 15.2 x 7.3 in)
System Weight:	
In Case:	6.50 kg (14.30 lb)
Without Case:	1.73 kg (3.80 lb)
Power:	8.4 V, 43 Wh and 86Wh Battery Pack AC: 90-264 Vac, 47-63 Hz, <1.2 Arms @90 Vac DC: 10.2 V +5/-3%. 4.9 A
Construction:	Polycarbonate housings with integrated Versalon™(JP) bumpers
Dimensions:	9.53 x 13.34 x 34.29 cm (3.75 x 5.25 x 13.50 in)
LCD Monitor:	Integrated transfective 9.40 cm (3.70 in) active matrix VGA color LCD with XpertBright, 640 x 480 resolution 360° All-Way tip articulation with XpertSteer, bump gesture, menu access and navigation
Joystick Control:	Access user functions, measurement and digital functions
Button Set:	Integrated 2.5 mm headset/microphone jack
Audio:	4 GB Flash memory
Internal Memory:	Two USB® 2.0 ports
Data I/O Ports:	VGA Video Out
Video Port:	Auto and Variable
Brightness Control:	White LED
Illumination Type:	Via auto and manual mode
Long Exposure:	Factory default or user defined
White Balance:	
XpertVision (optional external monitor):	
Weight:	1.12 kg (2.46 lb) with battery
LCD:	16.25 cm (6.4 in) diagonal active matrix VGA color LCD with XpertBright
Resolution:	640 x 480 pixels
Sunlight Readable:	1100 Cd/Msqared
Mounting:	75 x 75 mm (1/4-20) and vesa mount
Battery Run Time:	2 hour/4 hour

Standards Compliance and Classifications

MIL-STD-810G	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
MIL-STD-461F	Tested to United States Department of Defense Electromagnetic Interference RS103 - ABOVE DECK Group 1, Class A: EN61326-1
Standards Compliance	UL, IEC, EN CSA-C22.2:61010-1 UN/DOT T1-T8
IP Rating	Tested to IP55

Camera

3.9 mm (0.154 in) Diameter Probes	
Image Sensor:	1/10 inch Color SUPER HAD CCD camera
Pixel Count:	290,000 pixels
Housing:	Titanium
6.1 mm (0.242 in) and 8.4 mm (0.331 in) Diameter Probes	
Image Sensor:	1/6 inch Color SUPER HAD™ CCD camera
Pixel Count:	440,000 pixels
Housing:	Titanium

Software

Operating System:	Real-time multi-tasking operating system
User Interface:	Simple drop-down menu-driven operation Menu navigation using articulation joystick
File Manager:	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
Measurements:	Provides user defined guided inspection Creates DICONDE compatible inspection files
MDI Software (optional):	Creates MS Word® compatible inspection reports PC compatible (.AAC) file format
Audio Data:	Invert, Zoom (5X digital)
Image Control:	Image Capture and Recall
Digital Zoom:	Continuous (5.0X)
Image Formats:	Bitmap (.BMP), JPEG (.JPG)
Video Format:	MPEG 4
Text Annotation:	Built-in full screen text overlay generator Supports international language character sets 100 text line capacity User placement of arrows "Steer & Stay" articulation lock/fine articulation Tip "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
Graphic Annotation:	
Articulation Control:	
Software Updates:	Field updateable via USB ThumbDrive
Languages:	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)
3.9 mm (0.154 in)						
6.1 mm (0.242 in)						
8.4 mm (0.331 in)						

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) ^[1]	Depth of Field (DOF)	3.9 mm Optical Tip Part #	6.1 mm Optical Tip Part #	8.4 mm Optical Tip Part #
Standard Tips						
FORWARD	NONE	☒	80°	6-80 mm (0.24-3.15 in)	PXT480FG ^[2]	
FORWARD	ORANGE	●	90°	3-40 mm (0.12-1.57 in)	PXT490FN	
FORWARD	NONE	☒	50°	50 mm-infinity (1.97 in-infinity)		XLG3T6150FF ^[2]
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 ^[2]
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	BROWN	●	80°	4-80 mm (0.16-3.15 in)	PXT480SG	
SIDE	RED	●	90°	2-16 mm (0.08-0.63 in)	PXT490SN	
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 ^[2]
SIDE	GREEN	●	80°	25-500 mm (0.98-19.68 in)		XLG3T8480SG
SIDE	BLUE	●	120°	4-200 mm (0.16-7.87 in)		XLG3T84120SN
StereoProbe Measurement Tips						
FORWARD	BLACK	●	50°/50°	5-45 mm (0.20-1.77 in)	PXTM45050FG	
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	●	50°/50°	4-45 mm (0.16-1.77 in)	PXTM45050SG	
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

^[1] FOV is specified diagonally.

^[2] Indicates tips with maximum brightness.



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