

GE
Sensing & Inspection Technologies

XL Go™ VideoProbe®

Remote Visual Inspection



The image shows two large white wind turbines standing in a field of green grass and yellow dandelions. The sky is a deep blue with scattered white clouds. The turbine in the foreground is taller and more prominent, with its three blades clearly visible. The second turbine is further back and to the left. The overall scene is bright and clear, suggesting a sunny day.

portavisibility

The new XL Go™ VideoProbe® system takes remote visual inspection to new heights.

No cords, no boxes—just outstanding image quality in an incredibly rugged and portable package.



Redefine Portability

Whether you're climbing a 100 meter tower to inspect a wind turbine gearbox, crawling atop a refinery heat exchanger or creeping under a turbofan jet engine on a test stand, a portable video borescope is essential.

The XL Go™ VideoProbe® system combines portability with performance—delivering sharp, clear digital images on a system designed to meet inspection needs across a wide range of industry applications.

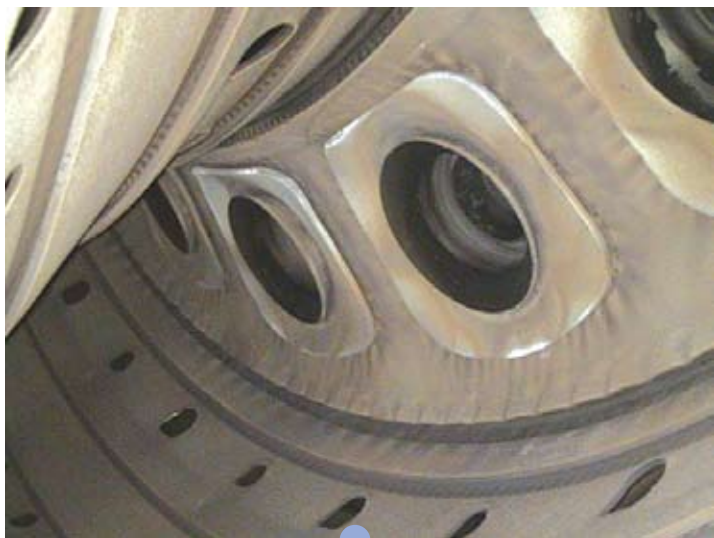
XL Go combines cordless operation with a host of features found in systems three times as large. Unlike other video borescopes, the XL Go has no bulky base unit, no backpacks, no tethered scopes or power cords to get in the way—ensuring unlimited inspection access and unprecedented ease of use.



XL Go in wind turbine nacelle

Redefine Image Quality

The ultra-compact XL Go™ VideoProbe® system doesn't sacrifice image quality for the sake of portability. In fact, the system's high-output white LED and crystal-clear VGA LCD give inspectors the sharp, detailed images needed to ensure accurate inspections. An intuitive user interface makes it easy to save still images or record motion video to the internal flash memory or removable USB® ThumbDrive®.



XL Go's Versatile Features

- **LED technology**—uses less power and runs cooler than traditional illumination systems
- **VGA LCD**—matches display to CCD imager performance for outstanding image quality
- **User interface**—five buttons make operation simple and intuitive
- **Still images and motion video**—capture non-compressed BMPs, compressed JPGs or MPEG video
- **Optical tip adapters**—alter Field-of-View, Depth-of-Field and Direction-of-View





Redefine Ruggedness

The XL Go™ VideoProbe® system is constructed to withstand the rigors of the industrial workplace. Shock absorbing materials and seals are strategically incorporated to resist impact damage and to prevent dust and water intrusion.

To ensure top performance in a wide range of environmental conditions, XL Go has been subjected to a battery of performance tests.

- **MIL-STD-810F¹**
 - Test Method 506.4 Rain and Blowing Rain
 - Test Method 507.4 Humidity
 - Test Method 509.4 Salt Fog
 - Test Method 510.4 Sand and Dust
 - Test Method 511.4 Explosive Atmosphere
 - Test Method 514.5 Vibration
 - Test Method 516.5 Shock
 - Test Method 521.2 Icing/Freezing Rain
- **MIL-STD-461E² (Above Deck)**
 - Test Method RS103 Radiated Susceptibility



Titanium camera head is eight times stronger than previous generation video borescopes

Laser-welded bending neck seam

Double-threaded tips

Double tungsten braid insertion tube

Note: 6.1 mm Ø probe shown at 2:1 scale

¹ United States Department of Defense - Test Method Standard for Environmental Engineering considerations and laboratory tests

² United States Department of Defense Interface Standard - Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment



Torsional Strain Relief

provides insertion tube rotation independent of hand-set

VGA LCD

provides bright, high-visibility display for accurate images

D

Soft Keys

adapts to menu state

A

B

C

Soft Keys

adapts to menu state

A: Second USB® Port

allows use of additional memory devices

B: Headphone Jack

allows recording and listening to audio annotation

C: VGA Video Out Port

displays XL Go video on external devices

D: Covered USB Port

protects memory device

Li-Ion Battery

provides two hours of operation
(four-hour battery optional)

Multifunction Joystick

navigates menu and controls articulation

High Strength Housing

uses impact-resistant materials for system durability

Colored Housing

provides high visibility

Shock Absorbing Materials

protects system from impact damage



Shown Actual Size

Features

Data Storage Options

Save still images and MPEG motion video to internal flash memory or choose between two external USB® ThumbDrive® bays.



Temperature Warning System

A sensor integrated into the camera head monitors temperature and provides three levels of on-screen indication to prevent damage from high-temperature environments.



Powerful Articulation

Servomotor All-Way® articulation for superior inspection navigation.

Durable Insertion Tube Construction

- Titanium camera head
- Quad-wall construction
- Tungsten bending neck and tube braid

Power Choices

Run XL Go™ on the standard two-hour battery, optional four-hour run-time battery or use the supplied AC power adaptor.



Charge batteries in or out of system



Powerful Software Technology

Advanced User Interface

Intuitive drop-down menus combined with on-screen cues make XL Go™ simple to operate and powerful enough to offer text, audio and graphic annotation.

File Manager

XL Go uses a convenient method for recalling files, creating folders, copying and viewing thumbnail images. Save images directly to USB® ThumbDrive® and transfer files from the system to USB drives.

Menu Directed Inspection

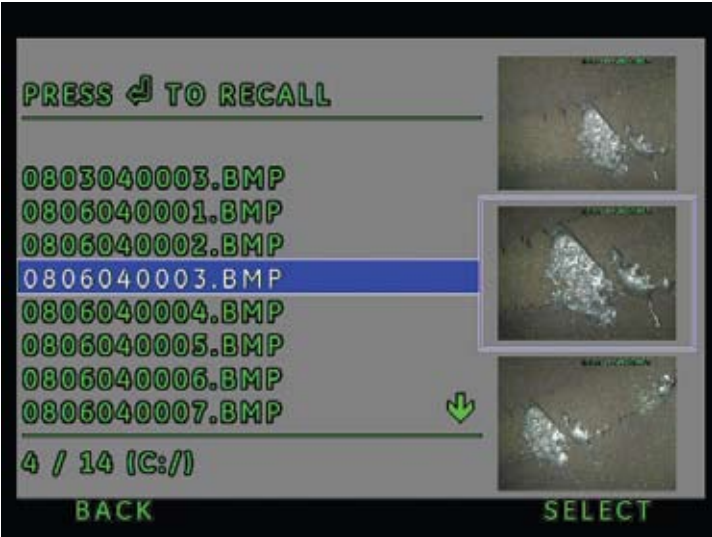
Menu Directed Inspection (MDI) software automatically annotates saved images, intelligently names files and creates Microsoft® Word® compatible inspection reports.

Measurement

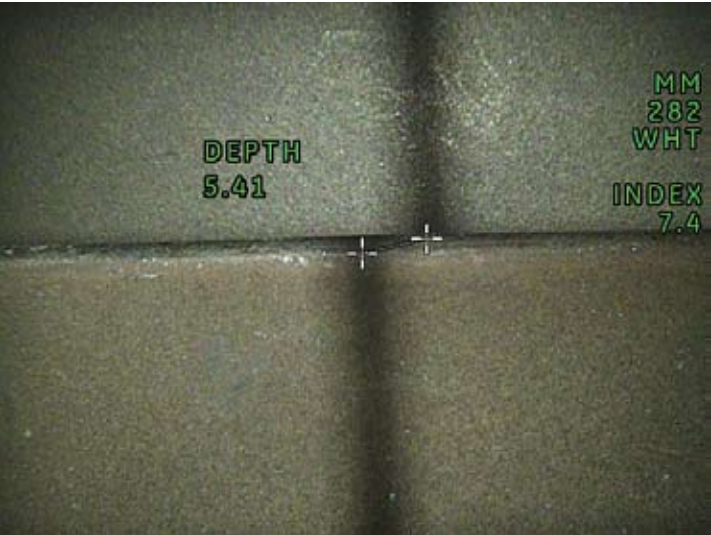
The XL Go is the only video borescope to offer ShadowProbe®, StereoProbe® and Comparison measurement capabilities. Inverse + and Zoom features allow precise cursor placement.

Supported Measurement Features

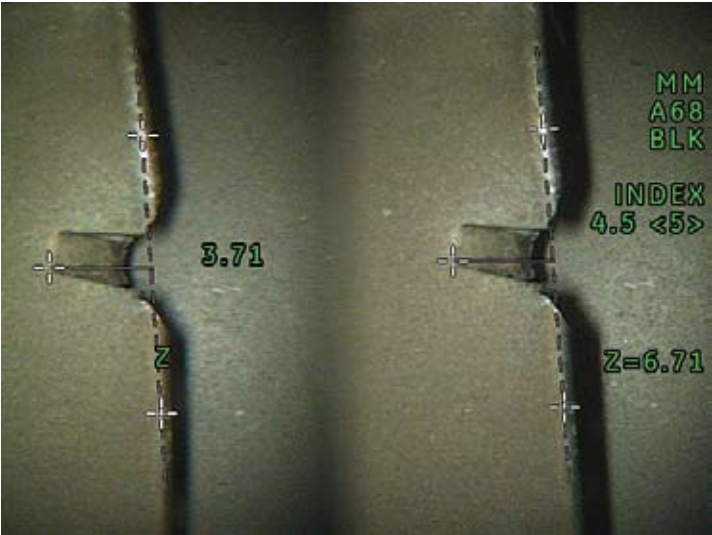
Feature	ShadowProbe®	StereoProbe®	Comparison
Length/Distance	■	■	■
Depth	■	■	
Point to Line	■	■	■
Skew	■		
Area	■	■	■
Multi-Segment Length	■	■	■
Circle Gauge	■		■
3x Zoom Windows	■	■	■
Five Measurements per Image	■	■	■



File management system with a thumbnail-based image and video recall system



ShadowProbe measurement



StereoProbe measurement

System and Accessories

A: Operating Manual

B: Rigidizer

C: Mini Magic Clamp

D: Hand-set Holder

E: Ball Joint

F: Optical Tip Case

G: Tube Gripper

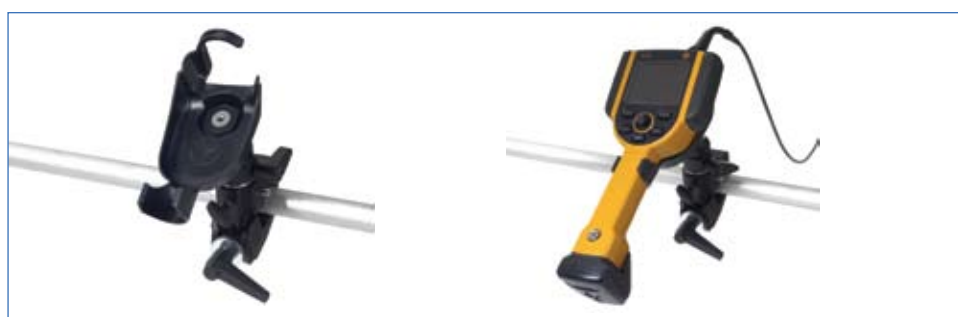
H: 4GB ThumbDrive®

I: AC Battery Charger

J: Optional Four-Hour Battery

K: XL Go System with two-hour battery

L: Standard Shipping/Storage Case



Mini Magic Mount Kit Empty and Mounted



Soft Carrying Case



Car Charger



Two- and Four-Hour Battery



Rigidizers and Grippers

Technical Specifications

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:	8.4V, 43Wh and 86Wh Battery Pack
	AC: 90-264 Vac, 47-63Hz, <1.2Arms @90 Vac
	DC: 10.2V +5/-3%. 4.9A
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 9.40 cm (3.70 in) active matrix VGA color LCD
Joystick Control:	360° All-Way® tip articulation, menu access and navigation
Button Set:	Access user functions, measurement and digital functions
Audio:	Integrated 2.5 mm headset/microphone jack
Internal Memory:	1GB flash memory
Data I/O Ports:	Two USB® 2.0 ports
	VGA Video Out
Brightness Control:	Auto and Variable
Illumination Type:	White LED
Long Exposure:	Via auto and manual mode
White Balance:	Factory default or user defined

Standards Compliance and Classifications

MIL-STD-810F:	United States Department of Defense Environment Tests Sections 506.4, 507.4, 509.4, 510.4, 511.4, 514.5, 516.5, 521.2
MIL-STD-461E:	United States Department of Defense Electromagnetic Interference RS103
Standards Compliance:	Group 1, Class A: EN61326-1 UL, IEC, EN CSA-C22.2:61010-1 UN/DOT T1-T8

Camera

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
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

CAMERA DIAMETER	INSERTION TUBE WORKING LENGTH				
3.9 mm (0.154 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)	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)	6.0 m (19.7 ft)	8.0 m (26.2 ft)	9.6 m (31.5 ft)

Operating Environment

Tip Operating Temp:	-25°C to 80°C (-13°F to 176°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% maximum, 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)
Hazardous Environments:	Not rated for use in hazardous environments

Software

Operating System:	Real-time, multi-tasking operating system
User Interface:	Simple drop-down, menu-driven operation Menu navigation using articulation joystick Embedded file manager software supporting: File and Folder creation, naming, deleting Store to internal flash (C:\) or USB ThumbDrive® Copy between USB and C:\
File Manager:	PC compatible (.AAC) file format
Audio Data:	Invert, Zoom (5X digital)
Image Control:	Image Capture and Recall Continuous (5.0X)
Digital Zoom:	Bitmap (.BMP), JPEG (.JPG)
Image Formats:	MPEG 4
Video Format:	Built-in full screen text overlay generator
Text Annotation:	User placement of arrows
Graphic Annotation:	"Steer & Stay" articulation lock/fine articulation
Articulation Control:	Tip "Home" return to neutral forward-tip orientation User-selectable fine or coarse control Field updateable via USB ThumbDrive
Software Updates:	English, Spanish, French, German, Italian, Russian, Japanese, Korean, Portuguese, Chinese
Languages:	

Tip Articulation

Insertion Tube Length	Straight Tube	One Loop
2.0 or 3.0 m	Up/Down – 150° min Left/Right – 150° min	Up/Down – 120° min, Left/Right – 120° min
6.0 m	Up/Down – 130° min Left/Right – 130° min	Up/Down – 120° min, Left/Right – 120° min
8.0 m	Up/Down – 120° min Left/Right – 120° min	Up/Down – 90° min, Left/Right – 90° min
9.6 m	Up/Down – 110° min Left/Right – 110° min	Up/Down – 80° min, Left/Right – 80° min

Note: Typical articulation exceeds minimum specifications

Technical Specifications

Tip Optics

Tip View (DOV)	Tip Color	Field of View (FOV)*	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		
FORWARD	ORANGE ●	90°	3–40 mm (0.12–1.57 in)	PXT490FN		
FORWARD	NONE ☒	50°	50 mm (1.97 in)–infinity		XLG3T6150FF	
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 (0.79 in)–infinity		XLG3T6190FF	
FORWARD	BLACK ●	120°	5–120 mm (0.20–4.72 in)		XLG3T61120FG	
FORWARD OBLIQUE	PURPLE ●	50°	12–80 mm (0.47–3.15 in)		XLG3T6150FB	
FORWARD	NONE ☒	40°	250 mm (9.84 in)–infinity			XLG3T8440FF**
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 (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	RED ●	80°	1–20 mm (0.04–0.79 in)		XLG3T6180SN	
SIDE	BROWN ●	40°	250 mm (9.84 in)–infinity			XLG3T8440SF**
SIDE	GREEN ●	80°	25–500 mm (0.98–19.68 in)			XLG3T8480SG
ShadowProbe® Measurement Tips						
FORWARD	WHITE ○	50°	12–30 mm (0.47–1.18 in)		XLG3TM6150FG	
SIDE	BLUE ●	50°	7–24 mm (0.28–0.94 in)		XLG3TM6150SG	
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 ●	50°/50°	2–50 mm (0.08–1.97 in)		XLG3TM615050SG	
SIDE	BLUE ●	60°/60°	4–50 mm (0.16–1.97 in)			XLG3TM846060SG

*FOV is specified diagonally.

**Indicates tips with maximum brightness.

For more information about how the XL Go VideoProbe system can enhance your inspection efforts, visit www.portavisibility.com.



www.geinspectiontechnologies.com

Standards Compliance

Every Measurement System is supplied with a Certificate of Compliance that indicates that the probe was manufactured and tested to measurement standards traceable to NIST (National Institute of Standards and Technology). Further, every Measurement System is supplied with a measurement verification block that contains test targets which are NIST traceable.



ISO 9001
REGISTERED COMPANY



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