# XL Go+<sup>™</sup> VideoProbe<sup>®</sup>

# Inspection Technologies

### See **more** easily

XL Go+ delivers increased probability of detection with new  $XpertSuite^{TM}$ 

Feel more confident about your assets and the decisions you need to make





### XpertSuite™ Improves Probability of Detection

XL Go+ VideoProbe has a host of new features designed to help increase the probability of detection. XpertSuite complements the XL Go's superior image quality to provide enhanced performance to assist in locating and measuring defects.

#### **XpertVision™ External Monitor**

An optional battery-operated monitor supplements the XL Go+ system. The monitor easily connects to the Go and provides additional viewing by a second inspector or remote observation.

#### XpertBright<sup>™</sup> Readable LCDs

Both the XL Go+ and the XpertVision LCDs are designed for maximum readability in strong outdoor lighting, harsh factory lighting or snowy environments. XpertBright enables optimum viewing while enhancing image quality.



XL Go+ with XpertVision External Monitor

#### **XpertSteer™ Probe Articulation**

Coupled with Servomotor All-Way® articulation, XpertSteer offers quick, responsive steering. When you stop steering the probe stops moving - no more overshooting. A bump steering feature enables tight probe control. A small "bump" of the joystick moves the probe at a small increment for better defect visibility.

#### **XpertLight™** Probe Illumination

Increased probe light output improves the image quality and the likelihood of identifying a defect. The increase in light output also enables the XL Go+ to locate defects in larger area applications.

### Portability Packed with Features

- StereoProbe®, ShadowProbe® and Comparison defect measurement
- Servo motor All-Way® Probe articulation
- Sealed housings for Dust and Water ingress protection to IP55
- Integrated Temperature Warning system
- Probe operates up to 100°C to gain access faster in hightemperature applications where cooling time is needed
- Patented Menu Directed Inspection (MDI) software automatically annotates saved images, intelligently names files and creates Microsoft Word® compatible inspection reports.
- 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-lon battery
- Full tip optic interchangeability with secure double threads
- Custom shipping and storage case included with system



XL Go+ Standard Storage Case and Accessories

#### **Tip Articulation**

Insertion Tube Length	Straight Tube
2.0 m, 3.0 m, 3.2 m, 4.5 m	Up/Down – 160° min, Left/Right – 160° min
6.0 m, 8.0 m, 9.6 m	Up/Down – 150° min, Left/Right – 150° min

Note: Typical articulation exceeds minimum specifications

### **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)
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, 10.2m of H<sub>2</sub>O,

33.5 ft of H<sub>2</sub>O)

Ingress Protection: IP55

#### **System**

**Case Dimensions:**  $48.8 \times 38.6 \times 18.5 \text{ cm} (19.2 \times 15.2 \times 7.3 \text{ in})$ 

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 × 13.34 × 34.29 cm (3.75 × 5.25 × 13.50 in)

**LCD Monitor:** Integrated transflective 9.40 cm (3.70 in) active matrix

VGA color LCD with XpertBright, 640 x 480 resolution

Joystick Control: 360° All-Way® tip articulation with XpertSteer, bump

gesture, menu access and navigation

**Button Set:** Access user functions, measurement and digital

functions

Audio: Integrated 2.5mm headset/microphone jack

Internal Memory: 4 GB Flash memory
Data I/O Ports: Two USB® 2.0 ports
Video Port: 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

**XpertVision** 

(optional external monitor):

**Insertion Tube** 

Weight: 1.12 kg (2.46 lb) with battery

LCD: 16.25 cm (6.4 in) diagonal active matrix VGA color LCD

with XpertBright

 $\begin{array}{ll} \textbf{Resolution:} & 640 \times 480 \text{ pixels} \\ \textbf{Sunlight Readable:} & 1100 \text{ Cd/Msquared} \\ \end{array}$ 

Mounting:  $75 \times 75 \text{ mm} (1/4-20) \text{ and vesa mount}$ 

Battery Run Time: 2 hou

#### **Standards Compliance and Classifications**

MIL-STD-810G: 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-461F: United States Department of Defense Electromagnetic

Interference RS103 and RE102 (Navy above deck)

Standards Compliance: Group 1, Class A: EN61326-1

UL, IEC, EN CSA-C22.2:61010-1

UN/DOT T1-T8

#### Camera

5.0 mm (0.197), 6.1 mm (0.242 in) and 8.4 mm (0.331 in) Diameter Probes Image Sensor: 1/6 inch Color SUPER HAD<sup>TM</sup> CCD camera

Pixel Count: 440,000 pixels

Housing: 440,000 pixels

3.9 mm (0.154 in) and 6.2 mm (0.244 in) Diameter Probes

**Image Sensor:** 1/10 inch Color SUPER HAD<sup>™</sup> CCD camera

Pixel Count: 290,000 pixels
Housing: Titanium

#### Software

File Manager:

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 & Folder creation, naming, deleting Store to internal Flash (C:\) or USB ThumbDrive

Copy between USB and C:\

 Measurements:
 StereoProbe®, ShadowProbe® and Comparison

 MDI Software (optional):
 Provides user defined guided inspection

Creates DICONDE compatible inspection files

Creates MS Word™ compatible inspection reports

Audio Data: PC compatible (.AAC) file format Image Control: Invert, Zoom (5X digital) 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

**Graphic Annotation:** User placement of arrows

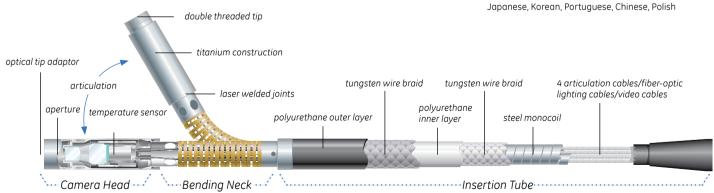
Articulation Control: "Steer & Stay" articulation lock/fine articulation
Tip "Home" return to neutral forward-tip orientation

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

**Software Updates:** Field updateable via USB ThumbDrive

**Languages:** English, Spanish, French, German, Italian, Russian,



Note: Illustration is not drawn to scale.

CAMERA DIAMETER	INSERTION TUBE WORKING LENGTH									
3.9 mm (0.154 in)	2.0 m (6.6 ft)	3.0 m (9.8 ft)								
5.0 mm (0.197 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)					
6.2 mm (0.244 in)		3.2 m (10.5 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)	9.6 m (31.5 ft)				

## **Technical Specifications**

#### **Tip Optics**

FORWARD	Tip View (DOV)	Tip Color	Field of View (FOV)*	Depth of Field (DOF)	3.9 mm Optical Tip Part #	5.0 mm Optical Tip Part #	6.1 mm Optical Tip Part #	6.2 mm Optical Tip Part #	8.4 mm Optical Tip Part #
FORWARD   ORANGE   90'   3-40 mm   0.24-157 in   PXT490FN	Standard Tips								
FORWARD   NONE   S0   S0   S0 mm (L47 /n  - inhinity   PKTSSOFF   XLG3T6150FF	FORWARD	NONE 🗵	80°	6-80 mm (0.24-3.15 in)	PXT480FG				
FORWARD	FORWARD	ORANGE •	90°	3-40 mm (0.12-1.57 in)	PXT490FN				
FORWARD   ORANGE   80°   3-70 mm (0.12-0.79 in)   PXT580FN   XLG3T16180FN   FORWARD   YELLOW   90°   20 mm (0.79 in)-infinity   XLG3T16190FF   TORWARD   BLACK   120°   5-120 mm (0.20-4.72 in)   PXT5100FG   TORWARD   BLACK   120°   5-120 mm (0.20-4.72 in)   PXT5100FG   TORWARD   BLACK   120°   5-120 mm (0.20-4.72 in)   PXT5100FG   TORWARD   BLACK   120°   5-250 mm (0.20-4.72 in)   PXT5100FG   TORWARD   NONE   12-80 mm (0.20-4.72 in)   PXT5100FG   TORWARD   NONE   12-80 mm (0.20-4.72 in)   PXT620FF   PXT620FF   PXT6210FF   PXT620FF   PXT6210FF   PXT620FF   PXT6210FF   PXT620FF   PXT6210FF   PXT6210FF   PXT6210FF   PXT6210FF   PXT620FF   PXT6210FF   PXT6210F	FORWARD	NONE 🗵	50°	50 mm (1.97 in)-infinity		PXT550FF	XLG3T6150FF		
FORWARD   YELLOW   90'   20 mm (0.79 in)-infinity   XLG3T6190FF	FORWARD	WHITE $\bigcirc$	50°	12-200 mm (0.47-7.87 in)		PXT550FG	XLG3T6150FG		
FORWARD   BLACK   120'   5-120 mm (0.20-4.72 in   PXT5100FG	FORWARD	ORANGE 🛑	80°	3-20 mm (0.12-0.79 in)		PXT580FN	XLG3T6180FN		
PORWARD   BLACK   100'   5-120 mm (0.20 - 4.72 in)   PXT5100FG   PXT62150FB   PXT6240FF   PXT6240FF	FORWARD	YELLOW -	90°	20 mm (0.79 in)-infinity			XLG3T6190FF		
PURPLE	FORWARD	BLACK ●	120°	5-120 mm (0.20-4.72 in)			XLG3T61120FG		
OBLIQUE   FORWARD   NONE	FORWARD	BLACK ●	100°	5-120 mm (0.20-4.72 in)		PXT5100FG			
FORWARD		PURPLE •	50°	12-80 mm (0.47-3.15 in)			XLG3T6150FB		
FORWARD BLACK 120' 4-190 mm (0.16-7.48 in) PXT62120FN FORWARD BLACK 120' 5-200 mm (0.20-787 in) SLG37841 FORWARD NONE	FORWARD	NONE 🗵	40°	100 mm (3.94 in.)-infinity				PXT6240FF	
FORWARD BLACK 120' 5-200 mm (0.20-7.87 in.)  FORWARD NONE	FORWARD	YELLOW -	120°	25 mm (0.98 in.)-infinity				PXT62120FF	
FORWARD   NONE   3	FORWARD	BLACK ●	120°	4-190 mm (0.16-7.48 in.)				PXT62120FN	
FORWARD   WHITE	FORWARD	BLACK ●	120°	5-200 mm (0.20-7.87 in.)					XLG3T84120FN
FORWARD   YELLOW   80°   25-500 mm (0.98-19.68	FORWARD	NONE 🗵	40°	250 mm (9.84 in)-infinity					XLG3T8440FF**
SIDE	FORWARD	WHITE O	40°						XLG3T8440FG
SIDE	FORWARD	YELLOW -	80°						XLG3T8480FG
SIDE	SIDE	BROWN •	80°	4-80 mm (0.16-3.15 in)	PXT480SG				
SIDE   GREEN   50°   9-160 mm   (0.35-6.30 in)   PXT550SG   XLG3T6150SG   XLG3T6150SG   XLG3T6120SG   XLG3T6180SN   XLG3T8418   XLG3T8418	SIDE	RED •	90°	2-16 mm (0.08-0.63 in)	PXT490SN				
SIDE   BLUE   120°   4-100 mm (0.16-3.94 in)   XLG3T61120SG	SIDE	BROWN •	50°	45 mm (1.77 in.)-infinity			XLG3T6150SF		
SIDE   BLUE   100°   4-100 mm (0.16-3.94 in)   PXT5100SG	SIDE	GREEN •	50°	9-160 mm (0.35-6.30 in)		PXT550SG	XLG3T6150SG		
SIDE   RED   80°   1-20 mm (0.04-0.79 in)   PXT580SN   XLG3T6180SN   PXT6280SF	SIDE	BLUE •	120°	4-100 mm (0.16-3.94 in)			XLG3T61120SG		
SIDE   GREEN   80°   18 mm (0.71 in) - infinity   PXT6280SF	SIDE	BLUE •	100°	4-100 mm (0.16-3.94 in)		PXT5100SG			
SIDE   BLUE   80°   5 mm (0.20 in) - infinity   NLG3T844	SIDE	RED •	80°	1-20 mm (0.04-0.79 in)		PXT580SN	XLG3T6180SN		
SIDE   BROWN   40°   250 mm (9.84 in)-infinity   XLG3T848	SIDE	GREEN •	80°	18 mm (0.71 in) - infinity				PXT6280SF	
SIDE GREEN ● 80° 25-500 mm (0.98-19.68 in) XLG3T848 SIDE BLUE ● 120° 4-200 mm (0.16-7.87 in) XLG3T841  hadowProbe® 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  tereoProbe® 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) PXTM56060FG XLG3TM616060FG PXTM626060FG  FORWARD BLACK ● 60′/60° 4-50 mm (0.16-1.97 in) PXTM45050SG  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) PXTM54545SG  SIDE BLUE ● 50′/50° 2-50 mm (0.08-1.97 in) PXTM56060FG  SIDE BLUE ● 50′/50° 4-80 mm (0.16-3.15 in) PXTM56060SG  SIDE BLUE ● 60′/60° 4-80 mm (0.16-3.15 in) PXTM56060SG								PXT62120SN	
SIDE   BLUE   120°   4-200 mm (0.16-7.87 in)   XLG3T841									XLG3T8440SF**
hadowProbe® 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   tereoProbe® 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) PXTM56060FG XLG3TM616060FG PXTM626060FG  FORWARD BLACK ● 60°/60° 4-50 mm (0.16-1.97 in) PXTM45050SG  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) PXTM54545SG  SIDE BLUE ● 60°/60° 4-80 mm (0.16-3.15 in) PXTM54545SG  SIDE BLUE ● 60°/60° 4-80 mm (0.08-1.97 in) PXTM56060FG  PXTM54545SG  PXTM54545SG									XLG3T8480SG
FORWARD WHITE				4–200 mm (0.16–7.87 in)					XLG3T84120SN
SIDE BLUE				12.70 (0.47.1.10: )			VI CZTMC1505C		
tereoProbe® 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) PXTM56060FG XLG3TM616060FG PXTM626060FG  FORWARD BLACK ● 60°/60° 4-50 mm (0.16-1.97 in) XLG3TM84  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.) PXTM5454545SG  SIDE BLUE ● 60°/60° 4-80 mm (0.16-3.15 in) PXTM626060SG									
FORWARD BLACK ● 507/50° 5-45 mm (0.20-1.77 in) PXTM45050FG  FORWARD BLACK ● 60°/60° 4-80 mm (0.16-3.15 in) PXTM56060FG XLG3TM616060FG PXTM626060FG  FORWARD BLACK ● 60°/60° 4-50 mm (0.16-1.97 in) XLG3TM84  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.) PXTM45050SG  SIDE BLUE ● 60°/60° 4-80 mm (0.16-3.15 in) PXTM626060SG  PXTM54545SG  XLG3TM615050SG  PXTM626060SG				7-24 (1)(1) (0.28-0.94 (1))			XLG31M01505G		
FORWARD BLACK 60°/60° 4-80 mm (0.16-3.15 in) PXTM56060FG XLG3TM616060FG PXTM626060FG  FORWARD BLACK 60°/60° 4-50 mm (0.16-1.97 in) XLG3TM84  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.) PXTM5454545SG  SIDE BLUE 60°/60° 4-80 mm (0.16-3.15 in) PXTM626060SG				5_//5 mm (0.20_1.77 in)	DYTM/(5050EG				
FORWARD BLACK ● 60°/60° 4-50 mm (0.16-1.97 in) XLG3TM84  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.) PXTM54545SG  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) PXTM626060SG					1 / 11:143030FG	DYTMS6060EG	XI G3TM616060EC	DYTM626060EG	
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.)         PXTM54545SG           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)         PXTM626060SG						ואוויוטטטטרט	VEGSTUIOTOOOOLG	1 / 111107000010	XLG3TM846060F
SIDE         BLUE         45°/45°         2-50 mm (0.08-1.97 in.)         PXTM54545SG           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)         PXTM626060SG					PXTM/IENENSC				VEQ211,040000L
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)         PXTM626060SG					171114303030	PXTM545459G			
SIDE BLUE • 60°/60° 4–80 mm (0.16–3.15 in) PXTM626060SG						17111373330	XI G3TM615050SG		
							VEQ211.0130302G	PXTM626060SG	
SIDE BLUE ● 60°/60° 4–50 mm (0.16–1.97 in) XLG3TM84	SIDE		60°/60°	4–50 mm (0.16–1.97 in)				1711/102000030	XLG3TM846060S

<sup>\*</sup>FOV is specified diagonally.

<sup>\*\*</sup>Indicates tips with maximum brightness.









www.geinspectiontechnologies.com

GEIT-65044EN (01/12)