

Everest XL PRO™ Plus

Remote Visual Inspection

Advanced, Modular, Portable

From Everest RVI Products, the world leader in the development of Remote Visual Inspection (RVI) equipment, comes the world's most advanced video borescope — the XL PRO™ Plus VideoProbe® system — specifically designed for ease of use and exceptional imaging capabilities.



Features

- CompactFlash® removable storage media
- Over two hours of MPEG2 full-motion audio/video recording and playback
- USB Streaming digital video output
- Integrated temperature warning system
- Complete portability with AC, DC or battery operation
- The only video borescope with three measurement modes
- Six interchangeable probe diameters from 3.9 mm (0.153 in.) to 8.4 mm (0.331 in.)
- Integrated viewing, recording, measuring, comparing and playback
- Zoom Windows for accurate cursor placement during measurement operations
- On-screen time/date, articulation position and character generation



With Mini Magic Arm



All-Way® Probe
Tip Articulation

Probes

From the world's smallest video borescope with All-Way articulation and measurement capability (the 3.9 mm Ø) to the 7.3 mm Ø VideoProbe® XL PRO system with an internal working channel, our interchangeable probes are built to withstand almost any environment. Ruggedly constructed, the probes are protected by:

- Titanium camera head
- Quad-wall insertion tube construction
- Tungsten braid over entire insertion tube and bending neck
- Force-limited, servo-motor articulation

Hand-Piece

The ergonomic hand-piece provides one-handed operation with intuitive joystick articulation, large control buttons and a high-resolution color LCD.

The innovative Hand-Piece features:

- Joystick for All-Way articulation and menu control
- Shock-mounted LCD monitor
- Integrated microphone
- Insertion tube torsional strain-relief
- Impact-absorbing rubber bumpers

Technical Specifications

System

Case Dimensions:	55.9 x 55.9 x 26.7 cm (22.0 x 22.0 x 10.5 in.)
Weight:	In case 15.9 kg (35.0 lbs.) Without case 7.7 kg (17.0 lbs.)
Power Supply:	AC Power Nominal input: 100-240 V (min 90 V, max 250 V); 50-400 Hz; 150 W max, 2 A max DC Power Nominal input: 11-14 V, 11 A max +28 VDC via accessory adapter

Camera

5.0, 6.1, 7.3 and 8.4 mm Ø VideoProbes

Image Sensor:	1/6 in. Color SUPER HAD CCD®
Pixel Count:	380,000 pixels NTSC; 440,000 pixels PAL
Long Exposure:	Automatic or Manual (34 msec to 12 seconds)
White Balance:	Factory default or user defined
Housing:	5.0, 6.1, 7.3 mm – Titanium; 8.4 mm – Stainless Steel

3.9 mm Ø VideoProbe

Image Sensor:	1/10 in. Color SUPER HAD CCD
Pixel Count:	250,000 pixels NTSC; 290,000 pixels PAL
Long Exposure:	Automatic or Manual (34 msec to 12 seconds)
White Balance:	Factory default or user defined
Housing:	Titanium

Hand-Piece

Dimensions:	30.5 x 14.7 x 12.7 cm (12.0 x 5.8 x 5.0 in.)
Weight:	2.3 kg (5.1 lbs.) typical; includes insertion tube, power plug, power tube and hand-piece
Power Tube:	1.52 m (5.0 ft.)
Construction:	ABS housing with integrated Santoprene® bumpers
LCD Monitor:	12.7 cm (5.0 in.) diagonal integrated TFT color LCD
Articulation:	360° All-Way® servo-motor tip articulation
User Controls:	Joystick and complete button function set
Microphone:	Integrated high-sensitivity microphone

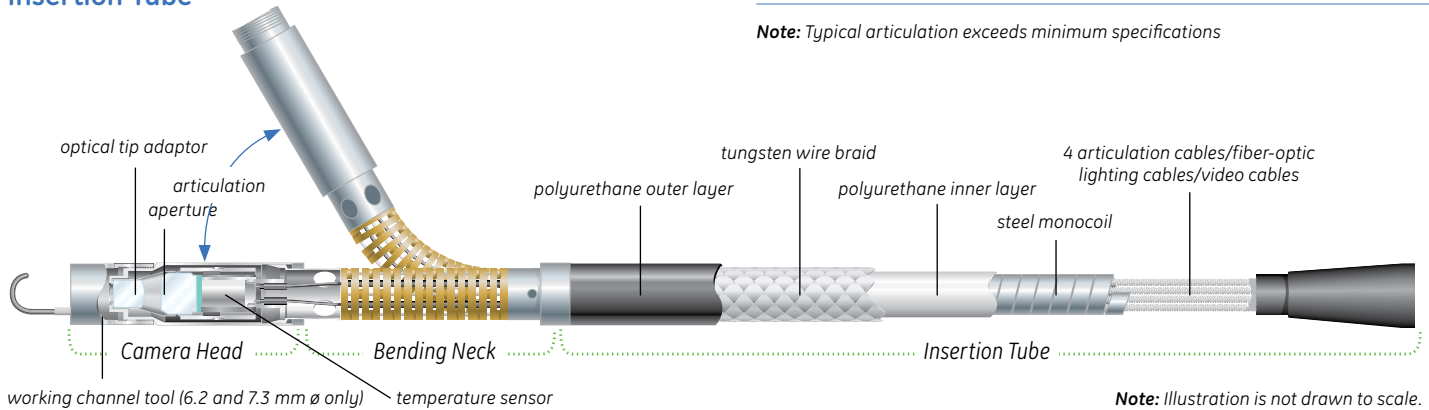
Operating Environment

Tip Operating Temp:	-25° to 80°C (-13° to 176°F)
System Operating Temp:	-20° to 46°C (-4° to 115°F)
Storage Temperature:	-25° to 60°C (-13° to 140°F)
Relative Humidity:	95% max
Waterproof:	Insertion tube and tip to 1 bar (14.7 psig, 10.2 m of H2O, 33.5 ft H2O)
Hazardous Environments:	Not rated for use in hazardous environments

Processor/Light Source

Dimensions:	27.9 W x 29.5 D x 14.0 H cm (11.0 x 11.6 x 5.5 in.)
Weight:	5.4 kg (12.0 lbs.)
Construction:	Aluminum chassis with polyurethane bumpers
Processor:	32 bit Pentium®-class embedded computer
Brightness Control:	Automatic and Variable
Lamp Type:	50 W Metal-Halide Arc
Lamp Output:	2600 lumens at 5885K
Lamp Life:	1000 hrs., median
Keyboard Input:	PS/2 style keyboard connector
Audio Speaker:	Built-in front panel speaker with volume control knob
Audio Out Jack:	RCA style connector, line-level audio out
Video Input:	S-Video and Composite BNC (XL PRO only) inputs
Video Output:	S-Video and USB 1.1 streaming digital video
Remote Control:	RS-232, DB-9F Connector
Memory:	64MB internal Flash memory
Disk Drives:	CompactFlash®, Type I, accepts all memory sizes
Still Image Storage:	.BMP uncompressed – 900KB typical file size .JPG Super High Quality – 200KB typical file size .JPG High Quality – 90KB typical file size .JPG Low – 30KB typical file size
Video Recording:	MPEG2: High and Low Quality Settings Up to 42 minutes recording on High w/1GB CF card MPEG1: High, Medium and Low Quality Settings Up to 92 minutes recording on Med w/1GB CF card

Insertion Tube



Tip Articulation

Length	Straight Tube
4.5 m and less	Up/Down – 140° min, Left/Right – 140° min
6.0 m	Up/Down – 120° min, Left/Right – 120° min
7.5 m	Up/Down – 110° min, Left/Right – 110° min

Note: Typical articulation exceeds minimum specifications

PRODUCT	CAMERA DIAMETER	INSERTION TUBE WORKING LENGTH									
VideoProbe® XL PRO™ Plus	3.9 mm (0.154 in.)	1.5 m (4.9 ft.)	2.0 m (6.6 ft.)	2.5 m (8.2 ft.)	3.0 m (9.8 ft.)						
	5.0 mm (0.197 in.)	1.5 m (4.9 ft.)	2.0 m (6.6 ft.)	2.5 m (8.2 ft.)	3.0 m (9.8 ft.)						
	6.2 mm (0.244 in.)			2.6 m (8.5 ft.)	3.2 m (10.5 ft.)	Full selection of retrieval tools available.					
	7.3 mm (0.287 in.)			2.6 m (8.5 ft.)	3.2 m (10.5 ft.)	Full selection of retrieval tools available.					
	6.1 mm (0.240 in.)	1.5 m (4.9 ft.)	2.0 m (6.6 ft.)	2.5 m (8.2 ft.)	3.0 m (9.8 ft.)	4.5 m (14.8 ft.)	6.0 m (19.7 ft.)	7.5 m (24.6 ft.)	9.6 m (31.5 ft.)	Full selection of retrieval tools available.	
	8.4 mm (0.331 in.)	1.5 m (4.9 ft.)	2.0 m (6.6 ft.)		3.0 m (9.8 ft.)	4.5 m (14.8 ft.)	6.0 m (19.7 ft.)	7.5 m (24.6 ft.)	Full selection of retrieval tools available.		
Industrial VideoProbe®	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.)	7.5 m (24.6 ft.)	9.0 m (30.0 ft.)	18.0 m (59.0 ft.)	
LongSteer® VideoProbe®	6.1 mm (0.240 in.)								12.2 m (40.0 ft.)	18.3 m (60.0 ft.)	
	10.0 mm (0.394 in.)	8.4 mm bending neck and head can							12.2 m (40.0 ft.)	18.3 m (60.0 ft.)	30.5 m (100.0 ft.)

Technical Specifications

Software

Operating System:	Real-time multitasking
User Interface:	Simple drop-down menu-driven operation
File Manager:	File and folder creation, naming, copying, deletion
Audio Data:	PC compatible, 15 second files (WAV format)
Image Controls:	Handset brightness control – gain and exposure
Image Management:	Single button freeze frame, Full or Split screen
Exposure Control:	Automatic or Manual (34 msec to 12 seconds)
Digital Zoom:	1X to 3X – Continuous and 5-Level Stepped
Still Image Formats:	BITMAP or JPEG (Super High, High or Low .JPG)
Video Record Formats:	MPEG2 (High or Low), MPEG1 (High, Med or Low)
Annotation:	Text and Graphic screen overlays and custom logos
Articulation Controls:	All-Way® steering, Steer/Stay, Home, Fine or Coarse
Lamp Control:	Manual brightness and software On/Off
Software Updates:	Field upgradeable via removable media
Remote Control:	PC control via iView™ Remote XL PRO™ application
Temperature Warning:	Integrated camera temperature warning system

Languages

User selectable: English, French, German, Italian, Japanese, Portuguese, Russian, Spanish, Swedish and Chinese

Measurement

Supported Measurement Features

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

Optical Tips

Tip View (DOV)	Tip Color	Field of View (FOV)*	Depth of Field (DOF)	Magnification** 13" Monitor/5" LCD	3.9 mm Optical Tip Part #	5.0 mm Optical Tip Part #	6.1 mm Optical Tip Part #	6.2 mm Optical Tip Part #	7.3 mm Optical Tip Part #	8.4 mm Optical Tip Part #
Standard										
FORWARD	NONE	☒ 80°	6–80 mm (0.24–3.15 in.)	37X / 15X	PXT480FG					
FORWARD	NONE	☒ 50°	50 mm (1.97 in.)–infinity	10X / 4X		PXT550FF	XT650FF		PXT750FF	XT850FF
FORWARD	WHITE	○ 50°	12–200 mm (0.47–7.87 in.)	30X / 11X		PXT550FG	PXT650FG		PXT750FG	PXT850FG
FORWARD	YELLOW	● 90°	20 mm (0.79 in.)–infinity	12X / 5X			PXT690FF			PXT890FF
FORWARD	ORANGE	● 80°	3–20 mm (0.12–0.79 in.)	70X / 27X		PXT580FN	PXT680FN			
FORWARD	BLACK	● 100°	5–120 mm (0.20–4.72 in.)	45X / 17X		PXT5100FG	PXT6100FG		PXT7100FG	PXT8100FG
FORWARD	NONE	☒ 40°	100 mm (3.94 in.)–infinity	10X / 4X				PXT6240FF		
FORWARD	YELLOW	● 120°	25 mm (0.98 in.)–infinity	7X / 3X				PXT62120FF		
FORWARD	BLACK	● 120°	4–190 mm (0.16–7.48 in.)	33X / 13X				PXT62120FN		
SIDE	BROWN	● 80°	4–80 mm (0.16–3.15 in.)	37X / 15X	PXT480SG					
SIDE	BROWN	● 50°	45 mm (1.77 in.)–infinity	10X / 4X			PXT650SF		PXT750SF	XT850SF
SIDE	GREEN	● 50°	9–160 mm (0.35–6.30 in.)	30X / 11X		PXT550SG	PXT650SG		PXT750SG	PXT850SG
SIDE	RED	● 80°	1–20 mm (0.04–0.79 in.)	70X / 27X		PXT580SN	PXT680SN		PXT780SN	PXT880SN
SIDE	BLUE	● 100°	4–100 mm (0.16–3.94 in.)	30X / 11X		PXT5100SG	PXT6100SG		PXT7100SG	PXT8100SG
45° (FORWARD / OBLIQUE)	PURPLE	● 50°	12–80 mm (0.47–3.15 in.)	30X / 11X			PXT650FB			
WIDE ANGLE***	NONE	☒ 220°	3–50 mm (0.12–1.97 in.)				PXT6220FN			
ShadowProbe® Measurement										
FORWARD	WHITE	○ 50°	12–30 mm (0.47–1.18 in.)	30X / 11X			PXT650FG		PXTM750FG	
SIDE	GREEN	● 50°	12–35 mm (0.47–1.38 in.)	30X / 11X			PXT650SG		PXTM750SG	
SIDE	BLUE	● 50°	7–24 mm (0.28–0.94 in.)	50X / 19X			PXT650SN		PXTM750SN	
StereoProbe® Measurement										
FORWARD	BLACK	● 60°/60°	4–80 mm (0.16–3.15 in.)	37X / 15X		PXTM56060FG	PXTM66060FG		PXTM76060FG	
FORWARD	BLACK	● 50°/50°	5–45 mm (0.20–1.77 in.)	44X / 14X	PXTM45050FG					
FORWARD	BLACK	● 60°/60°	5 mm (0.20 in.) – infinity	30X / 12X				PXTM626060FG		
SIDE	BLUE	● 50°/50°	2–50 mm (0.08–1.97 in.)	37X / 15X			PXTM65050SG		PXTM75050SG	
SIDE	BLUE	● 45°/45°	2–50 mm (0.08–1.97 in.)	45X / 17X		PXTM54545SG				
SIDE	BLUE	● 50°/50°	4–45 mm (0.16–1.77 in.)	44X / 14X	PXTM45050SG					
SIDE	BLUE	● 60°/60°	4 mm (0.16 in.) – infinity	30X / 12X				PXTM626060SG		

*FOV is specified diagonally.

**Magnification specifications at near-side of tip Depth of Field.

***Outer Ø 8.4 mm for use with 6.1 mm Ø VideoProbe®



GE Inspection Technologies: productivity through inspection solutions

GE Inspection Technologies provides technology-driven inspection solutions that deliver productivity, quality and safety. We design, manufacture and service ultrasonic, remote visual, radiographic and eddy current equipment and systems. We offer specialized solutions that will help you improve productivity in your applications in the aerospace, power generation, oil & gas, automotive or metals industries.

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