Datasheet:

XL Detect+ Weld VideoProbe™

Designed for high purity weld inspections, the XL Detect+ Weld VideoProbe helps detect surface defects in welds and purity pipe construction with clarity, ease, and accuracy. Featuring a purpose-built probe designed with a supple bending section that allows easy navigation around 90-degree bends helping to reduce wear and tear on the device while increasing inspection efficiency. A new larger and brighter LCD screen delivers best in class image quality, improved inspection productivity and increased probability of detection.

Features

+ Easy 360-degree rotation
+ Non-articulating 4-inch supple bending section
+ 5.0" 3X brighter display
+ 6.1mm (0.24 in) Ø insertion tube
+ Custom lengths and diameters available
+ Military grade durability
+ Single unit adapts to many applications

Benefits

+ Comprehensive inspections
+ Fast, agile maneuverability of probe tip around 90-degree bends equals inspection efficiency and reduced cost of ownership
+ Increased probability of detection (POD)
+ Readily inspects small diameter piping
+ Meet application-specific requirements
+ Dependability and Reduced cost of ownership
+ Covers a wide range of pipe structure inspections

Key applications for XL Detect+ Weld VideoProbe

+ Polished tube manufacturing + construction
+ Pipe manufacturing + construction
+ Pharmaceutical processing
+ Food processing
+ Storage tanks
+ Oil and gas platforms
+ Pressure vessels

Orbital weld irregularities inspected with XL Detect+ Weld VideoProbe

+ Overheating
+ Undercut
+ Sugaring
+ Porosity
+ Weld irregularities
+ Surface cracks
+ Incomplete or lack of weld penetration
+ Proper placement + positioning of ID welds
+ Cleaning validation

RVI weld examples

High integrity welds

Defective welds

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_2O, 33.5 ft of H_2O)
Environmental:	XL Detect: Tested to IP55 XL Detect+: Tested to IP64

System

Case dimensions:	48.8 x 38.6 x 18.5 cm (19.2 x 15.2 x 17.3 in)
System weight:	**In case:** XL Detect: 6.50 kg (14.30 lb) XL Detect+: 6.74 kg (14.87 lb) **Without case:** XL Detect: 1.73 kg (3.80 lb) XL Detect+: 1.98 kg (4.37 lb)
Power (Lithium Ion battery)	8.4 V, 38 Wh (2 hour) 8.4 V, 75 Wh (4 hour)
Power supply:	AC input: 100-240 VAC, 50-60 Hz, 1.5 A Max DC output: 9.5 V, 6.0 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:	XL Detect: Integrated transflective 9.40 cm (3.70 in) active matrix VGA color LCD with XpertBright, 640 x 480 resolution XL Detect+: Integrated 12.7 cm (5.0) active matrix VGA color LCD, transmissive display.
Insertion tube:	7.5m length tungsten braid with 4-inch supple section at probe tip for smooth and efficient navigation.
Joystick control:	Menu access and navigation
Button set:	Access user functions, measurement and digital functions
Audio:	Integrated 2.5 mm headset/microphone jack
Internal memory:	XL Detect: 1 GB Flash memory XL Detect+: 4 GB Flash memory
Data I/O ports:	One USB® 2.0 port
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

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	XL Detect: Tested to United States Department of Defense Electromagnetic Interference RS103 - ABOVE DECK
Standards compliance	Group 1, Class A: EN61326-1 UL, IEC, EN CSA-C22.2:61010-1 UN/DOT T1-T8
IP Rating	XL Detect: Tested to IP55 XL Detect+: Tested to IP64

Camera

6.1 mm (0.242 in) and 8.4 mm (0.331 in) diameter probes

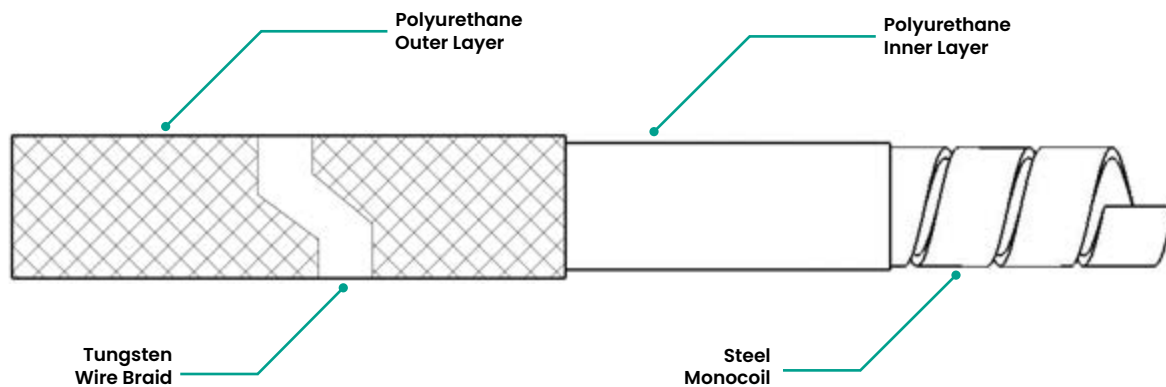|	
Image sensor:	1/6 inch Color SUPER HAD™ CCD camera
Pixel count:	440,000 pixels
Housing:	Titanium

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 Menu supporting: File & Folder creation, naming, deleting Store to internal Flash (C:\) or USB ThumbDrive Copy between USB and C:\
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
Software updates:	Field updateable via USB ThumbDrive
Languages:	English, Spanish, French, German, Italian, Russian, Japanese, Korean, Portuguese, Chinese, Polish

XL Detect+ Weld VideoProbe System

Part number	System contents
XLDPA6175-9294	Non-articulating 6.1mm x 7.5m insertion tube with 4-inch supple bending section
	NEW 5.0" display with 3X brightness
	NEW 4 GB Internal Flash Memory
	Optical tip adapter head guard, forward view, XLG3T6150FF
	Shipping and Storage Case (XLDETECTCASE)
	Upgraded image quality, Full VGA Sunlight
	Readable LCD, Long Exposure, Inverse+, 5x digital zoom and external
	Keyboard support
	2 hr run time battery
	Battery Charger/AC adapter with power cord
	Quick-start guide
	Manual on USB thumbdrive
	16 GB USB thumb drive
	Probe tip head guard Tip Case (XLG3T61CASE)

Insertion tube

Diameter**	Length**	Construction	Crush resistance
6.1 mm (0.242 in)	7.5m (24.6 ft.)	Durable tungsten braid over stainless steel monocoil with polyurethane sealant	136.0 kg (300 lbs.) applied over 7.6 cm (3.0 in) diameter surface

Tip optics

Tip View (DOV)	Tip color		Field of View (FOV)[1]	Depth of Field(DOF)		6.1 mm optical tip part #
Standard tips						
FORWARD	NONE	⊠	50°	50 mm–infinity	(1.97 in–infinity)	XLG3T6150FF[2]
FORWARD	WHITE	○	50°	12–200 m	(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 OBLIQUE	PURPLE	●	50°	12–80 mm	(0.47–3.15 in)	XLG3T6150FB
FORWARD	GRAY	●	120°	20-infinity	(0.79"–infinity)	T61120FF
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	RED	●	80°	1–20 mm	(0.04–0.79 in)	XLG3T6180SN

[1]FOV is specified diagonally.

[2]Indicates tips with maximum brightness.

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