



TOFD Scanner for the OmniScan®

The Olympus NDT® HST-X04 time-of-flight diffraction (TOFD) manual scanner offers an efficient, low-cost, and versatile weld inspection solution.

Applications

- Manually deployed single-axis scanner for use on plate, pipe, and curved surfaces
- Applicable to pipes, pressure vessels, storage tanks, and structural components
- Operates in any orientation, either on flat surfaces or on pipes up to 51-mm (2 in.) OD.

Data acquisition

- Permanent record of the results with the OmniScan®
- Ideal for position-related A-scan, B-scan, and echo-dynamic scan data collection
- Suitable for any system with 2 UT channels



OmniScan UT with TOFD display

Features

- Encoded linear-scan (one axis) for TOFD or pulse-echo inspections with appropriate yoke
- Water proof spring loaded encoder with rubber wheel for maximum adherence on inspected surfaces
- Compact, light and versatile
- Cost-effective
- Durable construction
- Can fit a full range of probes and wedges, including the CentraScan™ composite product line
- Probe center separation (PCS) fully adjustable from 17 mm to 180 mm
- Low-profile frame for use in constrained areas
- Tool-free quick release of wedges and probe holders
- Encoder resolution: 12 step/mm
- Compatible with the OmniScan, the TomoScan FOCUS LT (with optional adapter), and other instruments using the appropriate encoder cable (not included).

HST-X04 Scanner Kit Components

- Scanner with 150-mm frame
- Two 10-MHz (3-mm element diameter) CentraScan™ composite TOFD probes offering signal-to-noise ratio improvement over conventional UT probes
- Three sets of ST1 wedges with carbide wear pins and irrigation holes for 45°, 60°, and 70° operation
- Two LEMO®-Microdot® transducer cables 2.5m long
- Two LEMO®-to-BNC adapters
- Spring-loaded, friction-driven, and water proof Mini-Wheel encoder for X-axis or Y-axis data encoding
- Brackets for flexible encoder positioning
- Additional 250-mm frame for wider probe center separation
- Foam-padded carrying case

This HST-X04 Scanner kit can be further configured to fit the broad range of Olympus NDT TOFD and pulse-echo probes and wedges, including the composite product line.

Optional Pre-amplifier Kit



Part number: 5682-KIT01

The Panametrics-NDT™ 5682 preamplifier kit includes:

- 5682 preamplifier
- 2.5-m LEMO-LEMO cable
- Power cable
- 9 V battery
- Belt case

Preamplifier operates with standard 9 V battery or plugged to OmniScan® with supplied power cable.

Preamplifier specifications

- 30 dB gain
- 50 hours of battery life (continuous discharge)
- Continuous power-level indicator
- 67 dB signal-to-noise ratio
- Weight: 180 g (6.4 oz) with battery
- CE-certified

TomoScan FOCUS LT Encoder Cable Adapter

Encoder cable adapter (part number EWUX1430)



TOFD Probes and Wedges Ordering Information

High-sensitivity composite probes to fit ST1 wedge type			
Part number	Frequency (MHz)	Element diameter (mm)	Connector type
C542-SM	2.25	6.0	Microdot®
C543-SM	5.0	6.0	Microdot
C544-SM	10.0	6.0	Microdot
C563-SM	10.0	3.0	Microdot
High-sensitivity composite probes to fit ST2 wedge type			
Part number	Frequency (MHz)	Element diameter (mm)	Connector type
C540-SM	2.25	12.5	Microdot
C541-SM	5.0	12.5	Microdot
ST1 wedge type			
Part number	Refracted angle (°)	Wedge option group	
ST1-45L	45	Plain	
ST1-45L-IHC	45	IHC	
ST1-60L	60	Plain	
ST1-60L-IHC	60	IHC	
ST1-70L	70	Plain	
ST1-70L-IHC	70	IHC	
ST2 wedge type			
Part number	Refracted angle (°)	Wedge option group	
ST2-45L	45	Plain	
ST2-45L-IHC	45	IHC	
ST2-60L	60	Plain	
ST2-60L-IHC	60	IHC	
ST2-70L	70	Plain	
ST2-70L-IHC	70	IHC	

IHC: irrigation holes and carbide wear pins



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