Industrial

39DL PLUS™ Ultrasonic Thickness Gauge
Fast. Field-Proven. Future-Ready.

Faster Thickness Results

Streamline your ultrasonic thickness inspection process with one fast, connected, and reliable handheld gauge. The 39DL PLUS™ gauge works as a precision or corrosion thickness gauge for demanding applications. With world-class ultrasonic capability, fast scanning speeds up to a 60 Hz update rate, and fully integrated wireless connectivity, our flagship handheld gauge delivers results you can trust in a seamless workflow.

> **Connected:** Data transfer options include integrated Wi-Fi®, Bluetooth®, USB, RS-232, and a removable microSD card*
> **Fast:** Scan for minimal thickness areas at a 2 times faster display update rate**
> **Versatile:** Tackle multiple thickness applications with a full line of dual and single element transducers
> **Reliable:** Obtain accurate, reproducible measurements with exceptional signal quality, stable waveforms, and optimized algorithms

*Wi-Fi® and Bluetooth® are pending certification in some regions. Contact your local Evident representative for details on their availability.
**Up to 60 Hz versus 30 Hz on the predecessor model and comparable handheld thickness gauges.

Affordable Part Scanning

Get the scanning speed of a flaw detector with the ease of use and affordability of a thickness gauge. For inspection codes that require a 60 Hz display update rate for scanning, the 39DL PLUS thickness gauge offers an affordable alternative. With an industry-leading* 60 Hz update rate for handheld thickness gauges, the 39DL PLUS instrument makes it easier to find thin spots when scanning for minimal thickness areas on pipes and other assets affected by corrosion.

*As of June 2024.

One Gauge for Multiple Applications

The 39DL PLUS gauge offers powerful measurement features and a suite of application-specific software options, making it an all-in-one solution for your current and future requirements.

> **Wide thickness range:** 0.08 mm (0.003 in.) to 635 mm (25 in.) depending on material and transducer selection
> **Standard resolution:** 0.01 mm or 0.001 in. for all transducers
> **High Resolution software option** of 0.001 mm or 0.0001 in. with single element transducers from 2.25 MHz to 30 MHz
> **Corrosion thickness gauging** with dual element transducers
> **THRU-COAT™ technology** and **echo-to-echo measurements** on painted and coated surfaces
> **Internal Oxide/Scale software option** for boiler tube and internal oxide measurements
> **Multilayer software option** to measure up to four layers simultaneously

> **High Penetration software** option for attenuating materials such as fiberglass, rubber, and thick castings
> **Thickness, velocity,** and **time-of-flight** measurements
> **Differential mode and reduction rate mode** to track thickness variation and its percentage from a preset value
> **Time-based B-scan mode:** 10,000 reviewable readings per scan
> **High Dynamic Gain** technology with digital filters optimizes the starting gain setting based on calibration
> **V-Path Builder** for custom V-path compensation in corrosion applications
> Designed for **EN15317 compliance**
> **Compatible** with all probes and accessories supported on the predecessor model
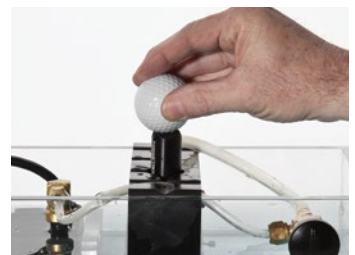
Ultrasonic thickness measurements are accurate, reliable, and repeatable. Instant readings can be achieved from one side of a material, making it unnecessary to cut up or destroy the part.
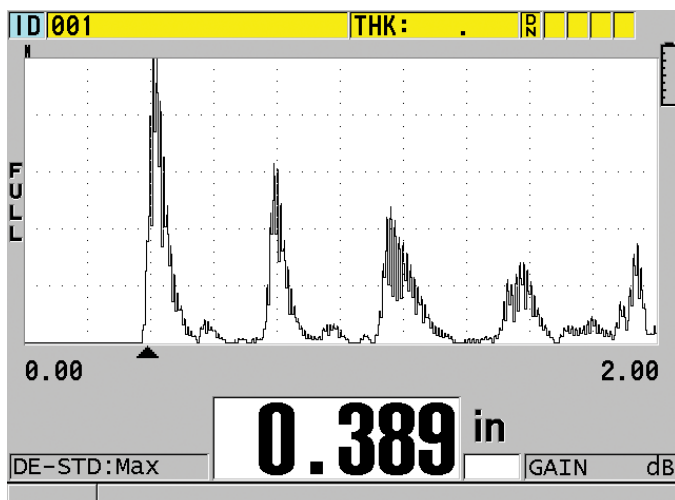
Trusted Ultrasonic Technology

Developed by experts with decades of nondestructive testing (NDT) experience, the 39DL PLUS™ gauge has become an industry standard for ultrasonic thickness testing. We've taken care of the ultrasonics and rugged housing, so you can focus on performing thickness inspections when and where you need it. Whether you work in wet or dusty conditions, cold or hot climates, or bright or dark areas, the 39DL PLUS gauge can handle any inspection job.

Built to Last in Any Environment

Your thickness gauge needs to keep working despite shocks, drops, and rough handling, and the 39DL PLUS gauge is up to the challenge. With its protective rubber boot and military-rugged design, it's built and tested tough.

> **Rugged:** Designed for IP67 for protection against dust and water
> **Explosive atmosphere, shock, and vibration tested** using MIL-STD-810H
> **Wide operating temperature range:** –10 °C to 50 °C (14 °F to 122 °F)
> **Protective rubber boot** with gauge stand

Easy to Carry, Easy to Use

Weighing only 0.83 kg (1.83 lb), our handheld gauge is comfortable to carry and use in the field or on the production floor. Operate the simple, ergonomic keypad with the left or right hand for quick access to all functions.

> **Built-in data logger:** Easily collect thickness readings and waveform data
> **Efficient inspections:** Default and custom setups for dual and single element transducers
> **Secure access control:** Lock instrument features with password-protected functions
> **Excellent clarity:** Color transflective VGA display with indoor and outdoor color settings
> **See work on a larger screen:** VGA output to connect gauge to computer or monitor

Outdoor display setting, A-scan mode
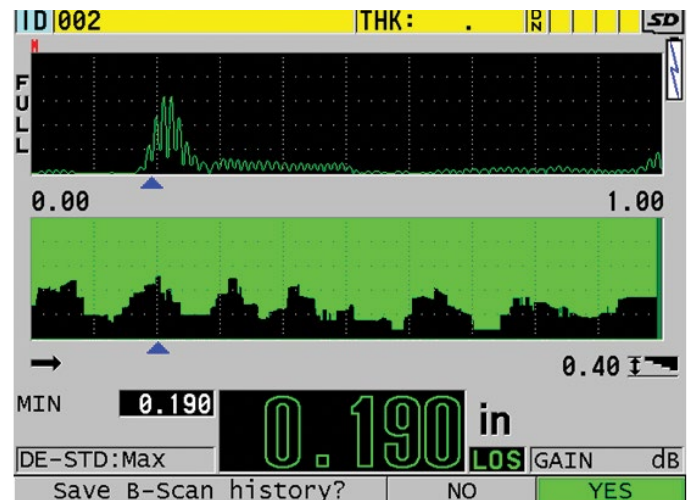
Indoor display setting, B-scan mode

Save Time with a Digital Inspection Workflow

Integrated Wi-Fi® and Bluetooth® capabilities on the 39DL PLUS™ gauge enable a seamless inspection workflow. Wirelessly connect to the Link Plus iOS app, Link-Wedge software, or the Inspection Project Manager (IPM) app to effortlessly share results. The gauge is also compatible with GageView™ software, giving you the flexibility to review data with a wired connection.

Powerful Workflow Management Tools

The **Inspection Project Manager (IPM)** is a cloud-based web and mobile app offering a digital inspection workflow that improves efficiency and data integrity.

> Use the iOS or Android mobile app with or without an internet connection to efficiently execute inspection tasks
> Collect inspection data and digitally sign off on inspection tasks in an intuitive interface
> The digital report automatically updates throughout your inspection

Easily Populate Your Thickness Data into Data Entry Programs

Use the optional Link-Wedge software and Bluetooth® to send data from your gauge to an active Windows software application. The software can populate data into almost any Windows-based data entry program.

Remote Control and Integration

The 39DL PLUS gauge offers the potential for remote control and integration, enabling convenient control of the gauge from a distance in innovative applications. To learn more about these capabilities, reach out to your local Evident sales representative or contact us at **EvidentScientific.com.**
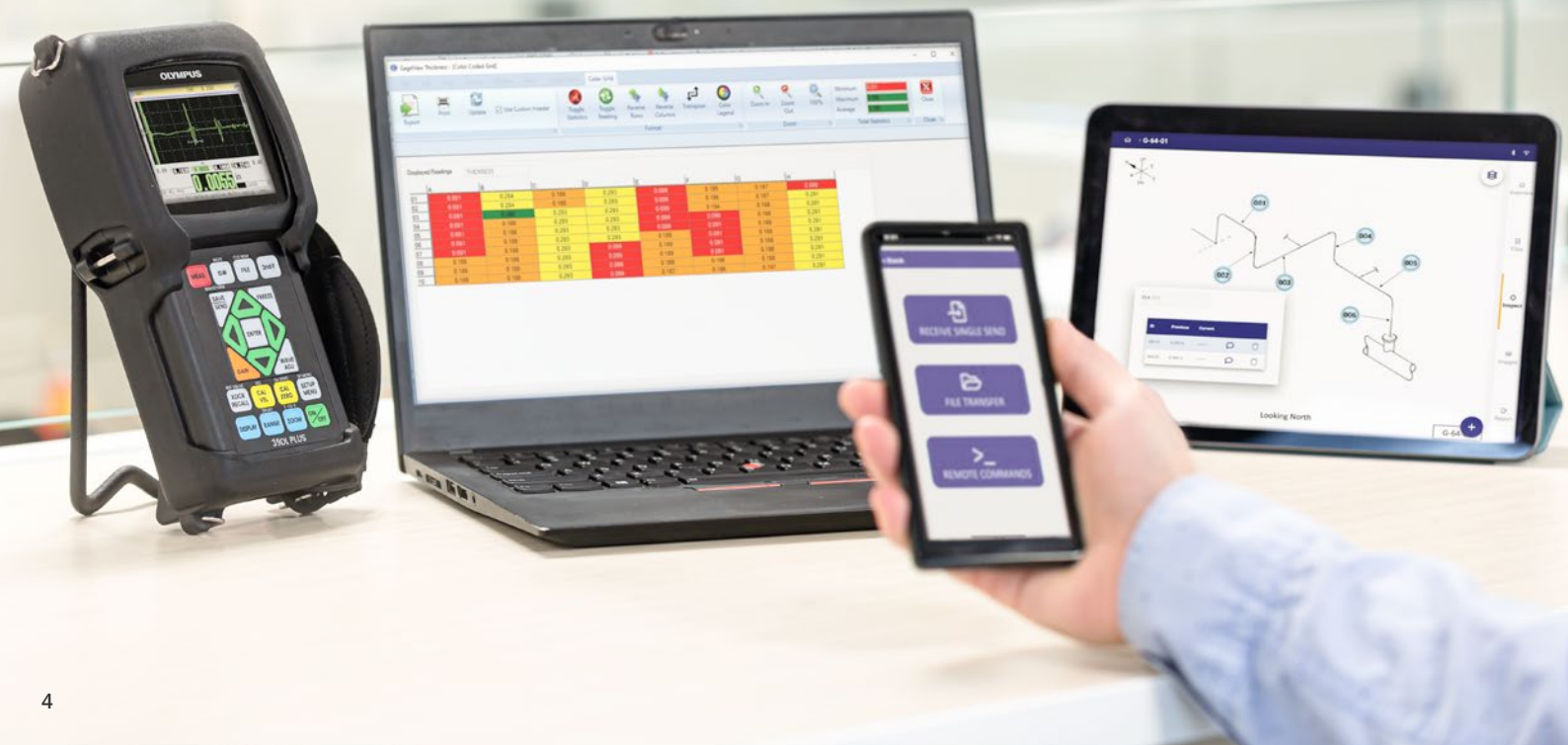
Confidence in Your Thickness Data

Built-In Data Logger

Improve productivity and data traceability with the full-featured, built-in data logger on the 39DL PLUS™ gauge. The bidirectional alphanumeric data logger is designed to easily collect and transfer thickness readings and waveform data.

Log data

> Internal memory of 792,832 thickness readings or 20,000 waveforms with thickness readings

> 32-character file name

> 9 file formats: incremental, sequential, sequential with custom point, 2D grid, 2D grid with custom point, 3D grid, 3D custom, boiler, and manual

> 20-character ID# (thickness measurement location or TML#)
>   - Store up to 4 notes per ID#
>   - Store notes at one or more ID#s

Analyze data

> Onboard statistical report

> Assess readings at a glance: Onboard DB Grid View with three programmable colors set to specific thickness values

Transfer data

> Wirelessly share data: integrated WiFi® and Bluetooth®

> Wired data transfer: USB and RS-232 communication ports

> Two-way transfer of single and dual element transducer setups

> Copy files between internal/external microSD™ memory cards; directly export internal files to a microSD card in an Excel-compatible CSV format

Onboard DB Grid View with three programmable colors

PC Software

The GageView™ interface program, a Windows-based application, collects, creates, prints, and manages data from the 39DL PLUS gauge. The software can communicate with the 39DL PLUS gauge using the USB and RS-232 ports, and it can read and write to a microSD memory card.

> Create datasets and surveys

> Edit stored data

> View dataset and survey files, including thickness readings, gauge setup values, and transducer setup values

> Download and upload thickness surveys to and from the gauges

> Export surveys to spreadsheets and other programs

> Collect snapshot screens

> Print reports such as thickness, setup table, statistics, and color grid

> Upgrade the operating software

> Download and upload single and dual element transducer setup files

> B-scan review

Thickness Measurements on Plastics, Metals, Composites, Glass, Rubber, and Ceramics

When using single element transducers with the 39DL PLUS™ gauge, you can make accurate thickness measurements on metals, plastics, composites, glass, ceramics, and other materials. These transducers are available in a wide range of frequencies, diameters, and connector styles. The High Resolution software option enables you to make very precise measurements at a resolution of 0.0001 in. or 0.001 mm.

> Standard resolution of 0.01 mm (0.001 in.) for all transducers
> High Resolution software option can display measurements up to 0.001 mm (0.0001 in.) for single element transducers from 2.25 MHz to 30 MHz
> High Penetration software option for measurements on attenuating materials such as fiberglass, rubber, and thick castings
> Multilayer software option for individual thickness measurements of up to four layers simultaneously
> Thickness, velocity, or time-of-flight measurements
> Differential and reduction rate modes to show thickness variation and reduction
> Application auto-recall with default and custom setups to simplify thickness measurements

Measure the thickness of many materials including plastic, metal, rubber, glass, ceramic, and composites.

High Penetration Software Option: Enables measurement of thick or sound attenuating materials, such as rubber, fiberglass, castings, and composites, using low-frequency single element transducers (as low as 0.5 MHz).

Multilayer Software Option: Calculates and simultaneously displays thickness measurements of up to four individual layers. It can also display the total thickness of selected layers. Typical applications include thickness of barrier layers in plastic fuel tanks, bottle preforms, and soft contact lenses.

Material Sound Velocity: Useful in applications where the speed of sound within the material can be correlated to other properties. Typical applications include cast metals to monitor the degree of nodularity, and composites/fiberglass to monitor variations in density.

Time of Flight: Measures the round-trip time-of-flight (ToF) of the sound in the inspected part. Time-of-flight measurements are often used to monitor changes in the density of a material that might affect the ultrasonic travel time.

Differential and Reduction Rate Modes: Differential mode shows the thickness variation from a preset thickness value, while reduction rate mode displays the percentage of that thickness variation. This is useful for tracking the percentage of wall thinning after a material thinning process. A typical application is automotive sheet steel that is bent and formed to make car body panels.

The High Resolution software option enables thickness measurements of up to 0.001 mm (0.0001 in.) resolution.

Many cast metal parts or sound-attenuating materials can be measured with the High Penetration software option.

Thickness Measurements on Internally Corroded Metals

One common application of the 39DL PLUS™ gauge is measuring the remaining thickness of pipes, tubes, tanks, pressure vessels, hulls, and other structures affected by corrosion or erosion. Dual element transducers are commonly used for these applications.

> ❯ Automatic Probe Recognition for standard D79X series dual element transducers
> ❯ 10 custom dual element transducer setups
> ❯ Optimized default gain during calibration for dual element transducers
> ❯ V-Path Builder for custom V-path compensation
> ❯ Calibration doubling warning in case echo doubling occurs during calibration
> ❯ THRU-COAT™ technology and echo-to-echo measurements on painted and coated surfaces
> ❯ High-temperature measurements up to 500 °C (932 °F)
> ❯ Boiler tube and internal oxide measurements (optional) with M2017 or M2091 single element transducers
> ❯ EMAT transducer (E110-SB) for no-couplant measurements of boiler tubes with external oxide/scale buildup

Encoded B-scan Option

Enables the 39DL PLUS gauge to be connected to a linear encoded scanner to generate encoded B-scans. The instrument captures and stores the distance traveled information along with corresponding thickness readings; the waveform at the minimum thickness location is also captured. You can select the distance between measurements and between bidirectional and unidirectional modes. Store up to 10,000 thickness readings in a single B-scan.

THRU-COAT Technology

Uses a single back-wall echo to measure true metal thickness. It can also display the metal and coating thicknesses, each adjusted for their correct material sound velocities. There is no need to remove paint and coatings from surfaces. THRU-COAT measurements use the D7906- SM, D7906-RM, and D7908 dual element transducers.

Temperature Compensation

Variations in material temperature affect sound velocity and the accuracy of thickness measurements. The temperature compensation feature enables you to manually enter the calibration block's temperature and the current (high) temperature at the measurement points. The 39DL PLUS gauge automatically displays the temperature-corrected thickness.

Oxide/Scale Measurement Option

Uses advanced algorithms to measure the thickness of oxide/scale buildups inside boiler tubes. The gauge simultaneously displays the metal thickness of the boiler tube and the thickness of the oxide layer. Knowing the thickness of the oxide/scale helps predict tube life. We recommend using the M2017 or M2091 transducers in this application.

V-Path Builder

This patented feature enables you to build a custom V-path compensation curve for almost any dual element transducer. These curves can be saved and recalled along with custom setups for most dual element transducers. You simply calibrate and enter the known thickness with a minimum of 3 and up to 10 calibration points, and the instrument will create the V-path.

Automatic Probe Recognition

All standard dual element transducers feature Automatic Probe Recognition, which automatically recalls a default V-path correction for each specific transducer.

Dual Element Transducers for Corrosion Gauging

All standard dual element transducers feature Automatic Probe Recognition, which automatically recalls a default V-path correction for each specific transducer.

Transducer	Item Number	Freq. (MHz)	Connector	Tip Dia. mm (in.)	Range (Steel)* mm (in.)	Temp. Range** °C (°F)	Cable	Item Number
D790	U8450002	5.0	Straight	11.00 (0.434)	1.00 to 500.00 (0.040 to 20.000)	–20 to 500 (–5 to 932)	Potted	—
D790-SM	U8450009		Straight				LCMD-316-5B†	U8800353
D790-RL	U8450007		90°				LCLD-316-5G†	U8800330
D790-SL	U8450008		Straight				LCLD-316-5H	U8800331
D791	U8450010	5.0	90°	11.00 (0.434)	1.00 to 500.00 (0.040 to 20.000)	–20 to 500 (–5 to 932)	Potted	—
D791-RM	U8450011	5.0	90°	11.00 (0.434)	1.00 to 500.00 (0.040 to 20.000)	–20 to 400 (–5 to 752)	LCMD-316-5C	U8800354
D7912	Q4530005	10.0	Straight	7.50 (0.295)	0.50 to 25.00 (0.020 to 1.000)	0 to 50 (32 to 122)	Potted	—
D7913	Q4530006		90°					
D794	U8450014	5.0	Straight	7.20 (0.283)	0.75 to 50.00 (0.030 to 2.000)	0 to 50 (32 to 122)	Potted	—
D797	U8450016	2.0	90°	22.90 (0.900)	3.80 to 635.00 (0.150 to 25.000)	–20 to 400 (–5 to 752)	Potted	—
D797-SM	U8450017		Straight				LCMD-316-5D	U8800355
D7226	U8454013	7.5	90°	8.90 (0.350)	0.71 to 100.00 (0.028 to 4.000)	–20 to 150 (–5 to 300)	Potted	—
D798-LF	U8450019							
D798	U8450018	7.5	90°	7.20 (0.283)	0.71 to 100.00 (0.028 to 4.000)	–20 to 150 (–5 to 300)	Potted	—
D798-SM	U8450020		Straight				LCMD-316-5J	U8800357
D799	U8450021	5.0	90°	11.00 (0.434)	1.00 to 500.00 (0.040 to 20.000)	–20 to 150 (–5 to 300)	Potted	—
D7910	U8454038	5.0	90°	12.7 (0.500)	1.00 to 254 (0.040 to 10.000)	0 to 50 (32 to 122)	Potted	—
MTD705††	U8620225	5.0	90°	5.10 (0.200)	1.00 to 19.00 (0.040 to 0.750)	0 to 50 (32 to 122)	LCLPD-78-5	U8800332
D7906-SM†††	U8450005	5.0	Straight	11.00 (0.434)	1.00 to 50.00 (0.040 to 2.000)	0 to 50 (32 to 122)	LCMD-316-5L	U8800358
D7906-RM†††	U8450025		90°				LCMD-316-5N	U8800647
D7908††	U8450006	7.5	90°	7.20 (0.283)	1.00 to 37.00 (0.040 to 1.500)	0 to 50 (32 to 122)	Potted	—

* Thickness range dependent on material, transducer type, surface conditions, and temperature. Full range may require Gain adjustment.
** Maximum temperature with intermittent contact only.

† Stainless steel cable available; consult Evident for details.
†† Not certified to EN15317; The MTD705 is issued a TP103 test certificate in accordance with ASTM E1065
††† Transducers used with THRU-COAT™ technology.

Single Element Transducers for Corrosion Gauging

For a complete list of single element transducers, please consult your local representative or visit us online at EvidentScientific.com.

Transducer	Item Number	Freq. (MHz)	Connector	Tip Dia. mm (in.)	Range (Steel)* mm (in.)	Temp. Range** °C (°F)	Cable	Item Number
V260-SM	U8411019	15	Straight	2.00 (0.080)	0.50 to 10.00 (0.020 to 0.400)	0 to 50 (32 to 122)	LCM-74-4	U8800348
V260-RM	U8411018		90°				LCM-74-4	U8800348
V260-45	U8411017		45°				LCM-74-4	U8800348
M2017	U8415002	20	90°	6.35 (0.250)	Steel 0.50 to 12.00 (0.020 to 0.500) Oxide 0.25 to 1.25 (0.010 to 0.050)	0 to 50 (32 to 122)	LCM-74-4	U8800348
M2091	U8415018	20	90°	6.35 (0.250)	Steel 0.50 to 12.00 (0.020 to 0.500) Oxide 0.15 to 1.25 (0.006 to 0.050)	0 to 50 (32 to 122)	LCM-74-4	U8800348
E110-SB	U8471001	—	Straight	28.50 (1.250)	2.00 to 125.00 (0.080 to 5.000)	0 to 80 (32 to 176)	LCB-74-4 and 1/2XA/E110	U8800320 U8767104

* Dependent on material, transducer type, surface conditions, and temperature. Full range may require Gain Adjust.
** Maximum temperature with intermittent contact only.

D791

D7908

D794

D790

D7226

D790-RL

D798-LF

D790-SL

D799

D791-RM

MTD705

D790-SM

D798

D7906-SM

D7910

D797-SM

D7912

D7913

M2017

M2091

E110-SB

Additional Products

Couplants

Liquid couplant is almost always necessary to provide acoustic coupling between the transducer and the test piece. We offer various types of couplants to suit virtually all applications.

Calibration Test Blocks

Test blocks are necessary for the calibration of ultrasonic thickness gauges and are used to maintain and verify the accuracy, dependability, and reliability of ultrasonic measurements. Blocks are held to tighter tolerances than stated in the ASTM E797 code. Metric test blocks are available.

Transducer Cables

A wide selection of transducer cables suitable for all ultrasonic thickness gauging instrumentation.

› Standard
› Waterproof
› Heavy duty
  - Teflon
  - Stainless steel

Single Element Transducers for Precision Thickness Measurements

| Frequency (MHz) | Element Diameter | | Transducer | Item Number |
	mm	inches		
0.5	25	1.00	M101-SB*	U8400017
1.0	25	1.00	M102-SB*	U8400018
1.0	13	0.50	M103-SB*	U8400020
2.25	13	0.50	M106-RM M106-SM	U8400023 U8400025
2.25	13	0.50	M1036	U8400019
5.0	13	0.50	M109-RM M109-SM	U8400027 U8400028
5.0	6	0.25	M110-RM M110-SM M110H-RM**	U8400030 U8400031 U8400029
10	6	0.25	M112-RM M112-SM M112H-RM**	U8400034 U8400035 U8400033
10	3	0.125	M1016	U8400015
20	3	0.125	M116-RM M116-SM	U8400038 U8400039
20	3	0.125	M116H-RM**	U8400037

* These transducers can only be used with the High Penetration software option.
** Use with spring loaded holder.

M101-SB M103-SB M102-SB M1036 M106-SM M106-RM M109-SM M109-RM M112-SM M116-SM M116-RM M110-RM M112-RM M1061

Sonopen™ Transducers

> Has a replaceable delay line that is tapered to a small contact area
> Enables reliable thickness measurements in applications such as turbine blades and tight radii on plastic containers

SONOPEN – 15 MHZ, 3 MM (0.125 IN.) TRANSDUCER

| Straight Handle | | Right Angle Handle | | 45° Handle | |
Part	Item Number	Part	Item Number	Part	Item Number
V260-SM	U8411019	V260-RM	U8411018	V260-45	U8411017

SONOPEN – REPLACEABLE DELAY LINES

| Tip Diameter | | Part | Item Number |
mm	inches		
2.0	0.080	DLP-3	U8770086
1.5	0.060	DLP-302	U8770088
2.0	0.080	DLP-301†	U8770087

† High-temperature delay for use up to 175 °C (350 °F)

DLP-301 V260-45 V260-SM V260-RM

Delay Line Transducers

Microscan™ delay line transducers provide excellent performance on very thin materials, at elevated temperatures, or with applications that require a high degree of thickness resolution.

Freq. (MHz)	Element Diameter		Transducer	Item Number	Holder	Item Number
	mm	inches				
0.5	25	1.00	M2008*	U8415001	—	
2.25	13	0.50	M207-RB	U8410017	—	
5.0	13	0.50	M206-RB	U8410016	—	
5.0	6	0.25	M201-RM	U8410001	—	
5.0	6	0.25	M201H-RM	U8411030	2127	U8770408
10	6	0.25	M202-RM M202-SM	U8410003 U8410004	—	
10	6	0.25	M202H-RM	U8507023	2127	U8770408
10	3	0.125	M203-RM M203-SM	U8410006 U8410007	—	
20	3	0.125	M208-RM M208-SM	U8410019 U8410020	—	
20	3	0.125	M208H-RM	U8410018	2133	U8770412
20	3	0.125	M2055**	U8415013	—	
30	6	0.25	V213-BC-RM**	U8411022	—	

* These transducers can only be used with the High Penetration software option. ** Delay line is not replaceable on these transducers.

Replaceable Delay Lines

Delay lines function as a protective buffer between the surface of the test piece and the transducer element.

Element Diameter		Delay Line		Maximum Thickness / Measurement Limit*					
mm	inches	Part	Item Number	Steel - Mode 2		Steel - Mode 3		Plastic - Mode 2	
13	0.50	DLH-2	U8770062	25	1.0	13	0.5	13	0.5
6	0.25	DLH-1	U8770054	25	1.0	13	0.5	13	0.5
3	0.125	DLH-3	U8770069	13	0.5	5	0.2	5	0.2

* Exact range depends on material sound velocity, transducer frequency, part geometry, and surface condition.

39DL PLUS™ Specifications*

MEASUREMENTS

Dual element transducer measurement mode	Time interval from a precision delay after the excitation pulse to the first echo
THRU-COAT™ measurement	Measurement of true metal and coating thicknesses with a single back-wall echo (with D7906-SM and D7908 transducers)
Thru-Paint Echo-to-Echo	Time interval between two successive back-wall echoes to eliminate paint or coating thickness
Single element transducer measurement modes	Mode 1: Time interval between the excitation pulse and the first back-wall echo Mode 2: Time interval between the delay line echo and the first back-wall echo (with delay or immersion transducers) Mode 3: Time interval between successive back-wall echoes following the first interface echo after the excitation pulse (with delay line or immersion transducers) Oxide: optional Multilayer mode: optional
Thickness range	0.080 mm to 635 mm (0.003 in. to 25 in.) depending on material, transducer surface conditions, temperature, and selected configuration
Material velocity range	0.508 mm/µs to 13.998 mm/µs (0.020 in./µs to 0.551 in./µs)
Resolution (selectable)	Low: 0.1 mm (0.01 in.) Standard: 0.01 mm (0.001 in.) High Resolution (optional): 0.001 mm (0.0001 in.)
Transducer frequency range	Standard: 2.0 MHz to 30 MHz (–3 dB) High Penetration (optional): 0.50 MHz to 30 MHz (–3 dB)

GENERAL

Operating temperature range	–10 °C to 50 °C (14 °F to 122 °F)
Keypad	Sealed, color-coded keypad with tactile and audible feedback
Case	Impact-resistant and water-resistant, gasketed case with sealed connectors; designed for IP67
Dimensions (W x H x D)	Overall: 125 mm x 211 mm x 46 mm (4.92 in. x 8.31 in. x 1.82 in.)
Weight	0.83 kg (1.83 lb)
Power supply	AC/DC adapter, 24 V; lithium-ion battery 23.760 Wh; or 4 AA auxiliary batteries
Battery life, lithium-ion	Operating time: typically 8-9.5 hours Fast charge: 2 h to 3 h
Standards	Designed for EN15317
Explosive atmosphere	Tested using MIL-STD-810H, Section 511.7, Procedure I

DISPLAY

Color transflective VGA display	Liquid crystal display, display area 56.16 mm x 74.88 mm (2.2 in. x 2.95 in.)
Rectification	Full wave, RF, half-wave positive, or half-wave negative

INPUTS/OUTPUTS

USB	USB 3.0
RS-232	Yes
Memory card	Maximum capacity: 32 GB GB external microSD™ memory card
Video output	VGA output standard

WIRELESS COMMUNICATION

Wi-Fi®	Integrated (can be disabled and enabled via a factory-supplied activation code)
Bluetooth®	Integrated (can be disabled and enabled via a factory-supplied activation code)

INTERNAL DATA LOGGER

Data logger	The 39DL PLUS instrument identifies, stores, recalls, clears, and transmits thickness readings, waveform images, and gauge configuration information through the USB, RS-232, Wi-Fi®, and Bluetooth®
Capacity	792,832 thickness measurements or 20,000 waveforms with thickness measurements
File names, IDs, and comments	32-character file names and 20-character alphanumeric location codes with four comments per location
File structures	Nine standard or custom application-specific file structures
Reports	On-gauge reporting of summary with statistics, Min./Max. with locations, Min. review, file comparison, and alarm report

Standard Package*

- › 39DL PLUS™ digital ultrasonic thickness gauge, AC or battery operation, 50 Hz to 60 Hz
- › Kits available with standard dual element transducers
- › Charger/AC adapter (100 VAC, 115 VAC, 230 VAC)
- › Internal data logger
- › GageView™ interface program
- › Test block and couplant
- › USB cable
- › Rubber protective boot with gauge stand and neck strap
- › User's manual
- › **Measurement features:** THRU-COAT, Thru-Paint Echo-to-Echo, EMAT compatibility, Min./Max. mode, two alarm modes, differential mode, B-scan, Application Auto-Recall, temperature compensation, Average/Min. mode

*Standard inclusion varies by region. Confirm the package with your local sales office.

Software Options

39DLP-OXIDE (Q1470008): Code-activated Internal Oxide measurement software

39DLP-HR (Q1470006): Code-activated High Resolution measurement software

39DLP-MM (Q1470007): Code-activated Multilayer measurement software

39DLP-HP (Q1470005): Code-activated High Penetration (low frequency) measurement software

39DLP-EBSCAN (Q1470004): Encoded B-scan software

Optional Accessories

1/2XA/E110 (U8767104): Filter adapter for E110-SB EMAT transducer

38-9F6 (U8840167): RS-232 cable

38-C-USB-IP67 (U8800998): USB cable for IP67 sealed operation

38DLP/RFS (U8780288): Foot switch, factory installed

EPLTC-C-VGA-6 (U8840035): VGA output cable

MICROSD-ADP-2GB (U8779307): 2 GB external microSD memory card (gauge can use up to a 32 GB microSD card)

BSCAN-ENC (U8779522): Encoded B-scan buggy

38DLP-ENC-CBC-10 (U8840168): 10 ft encoder cable