



38DL PLUS Ultrasonic Thickness Gauge

The 38DL PLUS is an innovative instrument that signals a new era in ultrasonic thickness gaging. Ideally suited for almost every ultrasonic thickness application, this handheld thickness gage is fully compatible with a full line of dual and single element transducers. The versatile 38DL PLUS can be used in applications ranging from wall thinning measurements of internally corroded pipes with dual element probes to very precise thickness measurements of thin or multilayer materials with single element transducers.

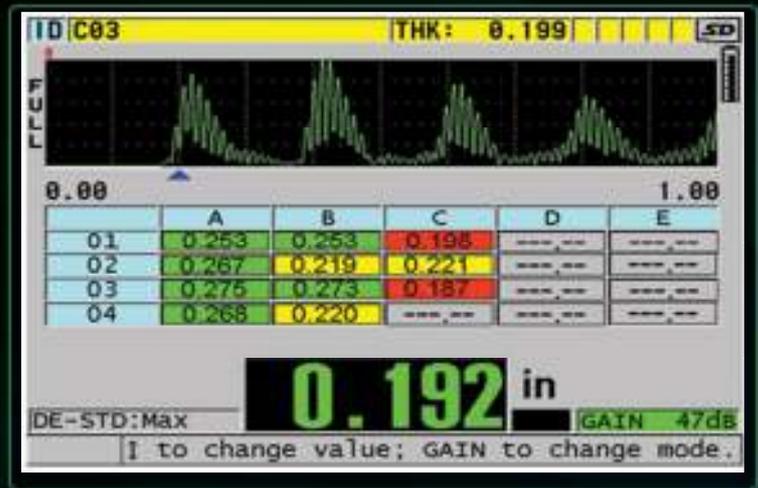
The 38DL PLUS comes standard with many powerful but easy-to-use measurement features and a host of application-specific software options. Its sealed case is designed to meet IP67 requirements to withstand the rigors of very wet or dusty environments. The colour transfective VGA display provides superior readability from bright sunlight to complete darkness. It features a simple, ergonomic keypad that can be operated with the left or right hand for easy access to all functions.



The 38DL PLUS is designed to meet the challenges of demanding applications and built to withstand tough conditions in the field and on the production floor. Whether you work in very wet or dusty conditions, cold or hot climates, or bright or dark areas, the 38DL PLUS can handle any inspection job. Need an instrument tough enough to tolerate shocks, drops and rough handling? The 38DL PLUS with its protective rubber boot and designed for IP67 rating is your answer.

/// Oceanscan Limited
/// Denmore Rd / Bridge of Don
/// Aberdeen / AB23 BJW

/// Tel: +44(0)1224 707000
/// Fax: +44(0)1224 707001
/// Email: info@oceanscan.co.uk



Technical 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	<p>Mode 1: Time interval between the excitation pulse and the first back-wall echo</p> <p>Mode 2: Time interval between the delay line echo and the first back-wall echo (with delay or immersion transducers)</p> <p>Mode 3: Time interval between successive back-wall echoes following the first interface echo after the excitation pulse (with delay line or immersion transducers)</p>
Thickness range	0.080 mm to 635.00 mm (0.003 in. to 25.000 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)	<p>Low: 0.1 mm (0.01 in.)</p> <p>Standard: 0.01 mm (0.001 in.)</p> <p>High Resolution (optional): 0.001 mm (0.0001 in.)</p>
Transducer frequency range	<p>Standard: 2.0 MHz to 30 MHz (-3 dB)</p> <p>High Penetration (optional): 0.50 MHz to 30 MHz (-3 dB)</p>

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 (Designed for IP67)	Impact-resistant and water-resistant, gasketed case with sealed connectors.
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	0.814 kg (1.80 lb)
Power supply	AC/DC adaptor, 24 V; lithium-ion battery 23.760 Wh; or 4 AA auxiliary batteries
Battery life, lithium-ion	Operating time: minimum 12.6 h, 14 h typical, 14.7 h maximum Fast charge: 2 h to 3 h
Standards	Designed for EN15317
Display	
Colour transfective VGA display Rectification	Liquid crystal display, display area 56.16 mm x 74.88 mm (2.2 in. x 2.95 in.) Full wave, RF, half-wave positive, or half-wave negative
Inputs/Outputs	
USB	1.0 client
RS-232	Yes
Memory card	Maximum capacity: 2 GB External MicroSD memory card
Video output	VGA output standard
Internal Data logger	
Data logger	The 38DL PLUS identifies, stores, recalls, clears, and transmits thickness readings, waveform images, and gage configuration information through the standard RS-232 serial port or USB port.

Capacity	475,000 thickness measurements/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
Reports	On-gage reporting of summary with statistics, Min./Max. with locations, Min. review, file comparison, and alarm report