

Application

A manual ultrasonic system to give very accurate wall thickness readings of pipelines, including the thickness of any remaining coating.

The 38DL PLUS is an advanced ultrasonic thickness gauge. Uses dual element transducer for internally corroded applications, features include THRU-COAT and Echo-to-Echo. Uses single element transducers for very precise thickness measurements of thin, very thick, or multi-layer materials.

The 38DL PLUS is an innovative instrument that signals a new era in ultrasonic thickness gauging. Ideally suited for almost every ultrasonic thickness application, this handheld thickness gauge 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 multi-layer materials with single element transducers.

Service Features

- Dual and single element transducer compatibility
- Wide thickness range: 0.08 mm (0.003 in.) to 635 mm (25 in.) depending on material and transducer selection
- Corrosion thickness gaging with dual element transducers
- THRU-COAT® and Echo-to-Echo measurements on painted and coated surfaces

- High Resolution software option of 0.001 mm or 0.0001 in. with single element transducers 2.25 MHz to 30 MHz
- Multi-layer software option for measurements of up to four layers simultaneously
- High Penetration software option for attenuating materials such as fiberglass, rubber and thick casting
- Thickness, Velocity, and time-of-flight measurements
- Differential mode and Reduction Rate mode
- Time-based B-scan mode; 10,000 reviewable readings per scan
- Olympus High Dynamic Gain technology with digital filters
- V-Path Builder for custom V-path compensation
- Designed for EN15317

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.



Picture courtesy of Olympus



Picture courtesy of Olympus

Data Logger and PC Interface

The 38DL PLUS has a full-featured internal bidirectional alpha-numeric data logger that is designed to easily collect and transfer thickness readings and waveform data.

- Internal memory of 475,000 thickness readings or 20,000 waveforms with thickness readings
- 32 Character File name
- 20 Character ID# (TML#)
- 9 file formats: Incremental, Sequential, Sequential with custom point, 2-D Grid, 2-D Grid with custom point, 3-D Grid, 3-D custom, Boiler, and Manual
- The ability to store up to 4 comments (notes) per ID# (TML)
- Stores comments (notes) at an ID# or to a Range of ID#'s
- Internal and External MicroSD memory cards
- File copy with the ability to copy files between Internal/ External MicroSD memory cards
- Standard USB and RS-232 communication
- Two-way transfer of both single and dual element transducer setups
- Onboard statistical report
- Onboard DB Grid View with three programmable colors
- GageView™ interface program can communicate with the 38DL PLUS using the USB, RS-232 ports, and can read and write to a MicroSD memory card
- Direct export of internal files to MicroSD memory card in Excel compatible CSV (comma-separated values) format

Thickness	A	B	C	D	E	F	G	H
01	0.366	0.241	0.329	0.216	0.296	0.316	0.336	0.365
02	0.366	0.241	0.268	0.311	0.296	0.331	0.366	0.317
03	0.366	0.241	0.211	0.367	0.301	0.261	0.367	0.301
04	0.366	0.218	0.325	0.275	0.301	0.211	0.322	0.336
05	0.366	0.218	0.367	0.231	0.301	0.316	0.336	0.228
06	0.366	0.218	0.320	0.230	0.301	0.331	0.366	0.318
07	0.366	0.231	0.276	0.187	0.301	0.366	0.366	0.293
08	0.241	0.231	0.366	0.196	0.301	0.366	0.318	0.366
09	0.241	0.231	0.292	0.202	0.301	0.366	0.366	0.366
10	0.241	0.366	0.222	0.296	0.316	0.365	0.366	0.366

When viewed on your PC a color coded grid easily flags out-of-tolerance thickness conditions.



- The GageView interface program, a Windows-based application, collects, creates, prints, and manages data from the 38DL PLUS
- Creates datasets and surveys
- Stored data editing
- View dataset and survey files; including thickness readings, gage setup values, and transducer setup values
- Download and upload thickness surveys to and from the gages
- Export surveys to spreadsheets and other programs
- Collecting snapshot screens
- Printing reports such as Thickness, Setup Table, Statistics, and Color Grid
- Upgrading operating software
- Download and upload single and dual element transducer setup files
- B-scan review

James Fisher Inspection and Measurement Services

A Trading Division of James Fisher Nuclear Limited, Factory Road, Sandycroft, Deeside, Flintshire CH5 2QJ

T: +44 (0)1244 520058 F: +44 (0)1244 535440 E: contact@jfims.co.uk

www.jfims.co.uk