



CYGNUS 1 Ex INTRINSICALLY SAFE ULTRASONIC THICKNESS GAUGE



An Intrinsically Safe Ex gauge, designed for taking reliable thickness measurements in mines and gas hazardous areas across all Zones 0, 1 & 2. No need for hot work permits. 3 measuring modes enable through-coat measurements for various materials and heavily corroded metals. Available with advanced data logging and manual measurement mode.



IDEAL FOR
USE IN



FUEL
DEPOTS



ROAD & VESSEL
TANKERS



MINES



CHEMICAL
PLANTS



OIL AND
GAS

...refineries, pipelines and hazardous storage tanks.



SELECTABLE OPTIONS



Cygnus High Temperature Ex Probe

ATEX-certified high temperature probe for measuring hot surfaces up to 300°C (570°F) continuous. **No cooling period required** - reducing inspection time and facilitating more effective measurement.

CERTIFIED INTRINSICALLY SAFE TO:

ATEX, IECEx and UKEX
 I M1 Ex ia Ma (Tamb = 0°C to +50°C)
 II 1G Ex ia IIC T4 Ga (Tamb = 0°C to +50°C)

Certificate Numbers;
 ATEX: ExVeritas 21ATEX0860X
 UKEX: ExVeritas 21UKEX0861X
 IECEx: IECEx EXV 21.0035X



Comprehensive Data Logging

- Datalogging: Basic (Linear lists) or Advanced (2D/3D Grids, Templates)

| LEV | POS | North | East | South | West |
|------|-------|-------|-------|-------|-------|
| LEV1 | POS12 | 11.87 | 11.91 | 11.78 | 11.46 |
| LEV1 | POS13 | 11.92 | 11.71 | 11.41 | 11.74 |
| LEV1 | POS14 | 11.24 | 11.27 | 11.78 | 11.38 |
| LEV1 | POS15 | 11.83 | 11.24 | 11.45 | 11.11 |
| LEV1 | POS16 | 10.09 | | | |

Stat: Logged: 21 Comp: 1% Min: 10.09

Next Point: LEV1.POS16.East

Re-Take Comment Navigate Finish

Three Selectable Measuring Modes

Multiple-Echo mode uses three error checked back wall echoes to provide the most reliable and accurate remaining thickness measurements, with no need to remove coatings (up to 20mm/0.8 in thick).

Single-Echo mode is ideal for measuring uncoated metals with heavy front and/or back-wall corrosion. Also effective on many cast metals, plastics and composites.

Echo-Echo mode works best for measuring heavily corroded metals through thin coatings of up to 1mm/0.04in thick, ideal for measuring painted metals with heavy back wall corrosion.

Exclusive to Cygnus, Measurement Stability Indicator (MSI) ensures stable and therefore reliable measurements are displayed in Echo-Echo and Single-Echo modes.

- Allows a maximum of 10,000 measurement points per record
- 16 grid patterns available
- Add radial points to any measurement (linear/grid) to further investigate immediately an area of interest or heavy corrosion
- 8 User-defined text comments to attach to any measurement point
- Auto-log feature
- Saves measurements and A-scans as records on internal memory

Cymlink Computer Software

CyLink is a Windows® based application for computer use to display continuous A-Scan output and measurement data. CyLink has the facility to log both data formats into a Survey file for report presentation, which can be emailed, exported as a PDF, or printed.

CYGNUS 1 Ex KEY FEATURES

- Certified Intrinsically Safe to ATEX, IECEx, UKEX for Zone 0
- High temperature measurement capability
- Intrinsic Safety protection - No need for hot work permits
- 3 measuring modes for levels of corrosion, various materials and through-coat measurements
- Deep Coat function ignores thick coatings
- Manual Measurement Mode allows gates and gain to be configured to suit your application
- Live A-Scans aid visual measurement verification
- Live B-scans give a quick, cross-sectional representation
- 4 function keys for easy controls and dynamic views
- User Access feature protects specific access level records
- Measurement setup can be saved/restored for quick start
- Measurement Freeze function and Ref/Min/Max thickness limits
- Available as SC, TC, PLUS and PRO variants with options of upgradeable features



LARGE 3.5" OUTDOOR READABLE DISPLAY **CYLINK SOFTWARE** **B-SCAN WITH AUTO START/ PAUSE/CONTINUE** **LIVE A-SCAN FOR FURTHER VERIFICATION**



CYGNUS 1 Ex SPECIFICATION

| Feature | Description |
|-----------------------------------|--|
| Measuring Mode | Single Echo with Twin Crystal Probes Echo-Echo with Twin Crystal Probes Multiple Echo with Singly Crystal Probes |
| Materials | Sound velocity from 1000 m/s to 9000 m/s [0.0390 in/us to 0.3543 in/us] |
| Accuracy | ±0.1 mm (±0.004") or 0.1% of thickness measurement whichever is the greatest |
| Resolution | 0.1mm, 0.05mm or 0.01mm depending on probe type |
| Probe Options | Single crystal, twin crystal and high temperature probes |
| Measurement Range in Steel | 0.8mm to 250mm (0.031 in. – 10 in.) depending on selected probe and configuration, material and temperature |
| Connector | Single Dual Coaxial Connector |
| Power Supply | Rechargeable, removable Lithium-Ion battery pack |
| Power Rating | 2W |
| Probe Sockets | Single Dual Coaxial Connector |
| Battery Life | 6-8 hours continuous measurement |
| Display | 3.5" VGA, sunlight readable colour display |
| Size | 270mm tall, 135mm wide, 80mm deep |
| Weight | 1 kg with battery |
| Operating Temp. | -0°C to +50°C (32°F to 122°F) |
| Storage Temp. | -10°C to +65°C (50°F to 149°F) |
| Data Logging | 10,000 measurements and A-scans per record |
| Computer Software | CygLink allows remote logging and viewing of A-scan graphs. Survey and report generation to PDF file. Graphic analysis of data and statistical calculations. Bluetooth connection to transfer data to a Windows® computer with CygLink |
| Certification | ATEX, IECEx and UKEX I M1 Ex ia Ma (Tamb = 0°C to +50°C) II 1G Ex ia IIC T4 Ga (Tamb = 0°C to +50°C) Certificate Numbers; ATEX: ExVeritas 21ATEX0860X UKEX: ExVeritas 21UKEX0861X IECEx: IECEx EXV 21.0035X |
| Environmental Protection | IP67 Pollution degree 3 |
| Standards | Designed for BS EN 15317:2000 |
| Warranty | 3 years on gauge and 6 months on probe |



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All information provided is subject to change without prior notice.

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INTECH NDE
Inspection Solutions

