



CYGNUS 1 Ex

INTRINSICALLY SAFE

ULTRASONIC THICKNESS GAUGE



IDEAL FOR USE IN



FUEL DEPOTS ROAD & VESSEL TANKERS MINES CHEMICAL PLANTS OIL AND GAS

...refineries, pipelines and hazardous storage tanks.



CYGNUS 1 Ex KEY FEATURES

- Certified Intrinsicly Safe to ATEX, IECEx, UKEX for Zone 0 and NRTL for Class 1, Division 1
- **Coming soon** - 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



GO TO PRODUCT PAGE



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

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

NRTL

- I.S. Class I Zone 0 AEx ia IIC Ga T4
- I.S. Class I Division 1 Groups ABCD T4 (Tamb = 0°C to +50°C)

NRTL / MET US Certification, Listing Number E115506



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.

SELECTABLE OPTIONS



Coming soon!

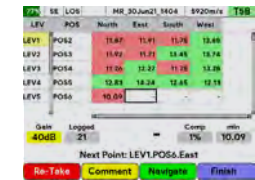
Cygnus High Temperature Ex Probe

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.



Comprehensive Data Logging

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



- 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

Cyglink Computer Software

CygLink is a Windows® based application for computer use to display continuous A-Scan output and measurement data. CygLink 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 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	<table border="0"> <tr> <td style="vertical-align: top;"> <p>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</p> </td> <td style="vertical-align: top;"> <p>NRTL I.S. Class I Zone 0 AEx ia IIC Ga T4 I.S. Class I Division 1 Groups ABCD T4 (Tamb = 0°C to +50°C) NRTL / MET US Certification, Listing Number E115506</p> </td> </tr> </table>	<p>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</p>	<p>NRTL I.S. Class I Zone 0 AEx ia IIC Ga T4 I.S. Class I Division 1 Groups ABCD T4 (Tamb = 0°C to +50°C) NRTL / MET US Certification, Listing Number E115506</p>
<p>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</p>	<p>NRTL I.S. Class I Zone 0 AEx ia IIC Ga T4 I.S. Class I Division 1 Groups ABCD T4 (Tamb = 0°C to +50°C) NRTL / MET US Certification, Listing Number E115506</p>		
Environmental Protection	IP67 Pollution degree 3		
Standards	Designed for BS EN 15317:2000		
Warranty	3 years on gauge and 6 months on probe		

ISS2 10/23

All information provided is subject to change without prior notice.



Cygnus Instruments Ltd.
Cygnus House
30 Prince of Wales Road
Dorchester
Dorset DT1 1PW
United Kingdom



Cygnus Headquarters

Call +44 (0) 1305 265 533
Email sales@cygnus-instruments.com
Visit cygnus-instruments.com

Cygnus UAE

Call +971 50 3459305
Email ribu@cygnus-instruments.com
Visit cygnus-instruments.com

Cygnus USA

Call +1 346 223 0415
Email sales@cygnus-instruments.com
Visit us.cygnus-instruments.com

Cygnus Singapore

Call +65 6252 5909
Email sales@cygnus-instruments.sg
Visit sg.cygnus-instruments.com

Cygnus 1 Ex Variants

COMPARISON GUIDE

The Cygnus 1 Ex gauge is available to order in four variants. You can change the variant or add certain features at a later date by purchasing an update code from Cygnus.



Go to Cygnus 1 Ex product page

LEV	POS	North	East	South	West
LEV1	POS2	11.87	11.91	11.78	13.65
LEV2	POS3	11.92	11.71	13.45	13.74
LEV3	POS4	11.26	12.27	11.78	13.28
LEV4	POS5	12.83	14.24	12.45	12.13
LEV5	POS6	10.04			

Gain 40dB Logged 21 Comp 1% min 10.09



Feature	Variants			
	SC	TC	PLUS	PRO
Measurement Units, Resolution, Velocity of Sound	✓	✓	✓	✓
Single Echo Measurements (SE) compatible with Twin Crystal Probes	*	✓	✓	✓
Echo-Echo Measurements (EE) compatible with Twin Crystal Probes	*	✓	✓	✓
Multiple-Echo Measurements (ME) including Deep Coat. compatible with Single Crystal Probes	✓	*	✓	✓
Measurement Limits	✓	✓	✓	✓
Material List	✓	✓	✓	✓
Calibration 1 & 2 Point	✓	✓	✓	✓
Indoor/Outdoor Display Colours	✓	✓	✓	✓
Measurement Freeze	✓	✓	✓	✓
Auto Probe Detection		✓	✓	✓
A-Scan Display	*	*	✓	✓
Manual Gain Control	*	*	✓	✓
High Temperature Measurement **	*	*	*	✓
Data Logging (Basic)			✓	
Data Logging (Advanced)	*	*	*	✓
B-Scan		*	✓	✓
Manual Gates (A & B)		*	*	✓
Fast Update Rate (32Hz)			✓	✓
Measurement Setups				✓
User Access Control				✓

* Feature can be purchased as an upgrade.

** With suitable high temperature Ex probe when available.