



# CYGNUS 1 INTRINSICALLY SAFE

ULTRASONIC THICKNESS GAUGE



The Cygnus 1 Intrinsically Safe is a simple and tough ultrasonic thickness gauge for safely measuring remaining metal thickness in hazardous/potentially explosive atmospheres. The gauge employs the Multiple-Echo technique to give accurate, self-verified measurements without removing protective coatings.

IDEAL FOR  
USE IN



CHEMICAL  
PLANTS



OIL AND  
GAS



STORAGE  
TANKS



LPG  
VESSELS



ROAD  
TANKERS

...oil and gas production infrastructure and pipelines, dry dust environments, mines, grain processing plants and fuel depots.



## BENEFITS OF MULTIPLE-ECHO

- Measures remaining metal thickness on corroded and coated structures
- All measurements are error checked using 3 return echoes to give repeatable, reliable results
- Accepted by all major classification societies
- Greatly reduces inspection time and costs
- Echo strength indicator to aid measurement

## CYGNUS 1 INTRINSICALLY SAFE KEY FEATURES



- For use in Zone 0, Zone 1 hazardous areas
- No plant shutdown or hot work permit necessary
- Approved for use in mines
- Echo strength indicator to aid measurement
- Stable calibration, linear accuracy, no zero adjustment
- Self-verification of the measurements to ensure maximum accuracy
- Two rechargeable battery packs with charger
- Displays sound velocity settings
- Right angle probe for use in areas of restricted access
- Probe frequency selectable
- Metric / imperial switchable
- Low battery warning



**BRIGHT LED  
DISPLAY WITH  
POLARISED  
FILTER**



**MULTIPLE  
PROBE  
OPTIONS  
AVAILABLE**



**HEAVY-DUTY  
SEALED  
UNIT IP65  
RATED**



**RUGGED,  
DURABLE,  
SHOCK-PROOF  
CONSTRUCTION**



**GO TO  
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Visit [www.cygnus-instruments.com](http://www.cygnus-instruments.com) to explore our full product range



## CERTIFIED INTRINSICALLY SAFE TO:

### ATEX

II 1 G Ex ia IIC T6 Ga  
(Tamb = -20°C to 40°C)  
I M 1 Ex ia I Ma  
(Tamb = 0°C to 45°C)  
Certificate No. BAS00ATEX1108

### UKEX

II 1 G Ex ia IIC T6 Ga  
(Tamb = -20°C to 40°C)  
I M 1 Ex ia I Ma  
(Tamb = 0°C to 45°C)  
Certificate No. BAS21UKEX0661

### IECEx

Ex ia IIC T6 Ga  
(Tamb = -20°C to 40°C)  
Ex ia I Ma  
(Tamb = 0°C to 45°C)  
Certificate No. IECEx BAS 19.0021

### CSA

Class 1 Group A, B, C, D Division 1



Call our team today on +44 (0) 1305 265 533 for expert product advice

## CYGNUS 1 INTRINSICALLY SAFE SPECIFICATION

Feature	Description
<b>Measuring Mode</b>	Multiple-Echo using 3 echoes to ignore coatings
<b>Materials</b>	Velocities from 2000 - 7000 m/s (0.059 and 0.31 in/us) - covers virtually all common engineering materials
<b>Accuracy</b>	±0.1mm (±0.004") or 0.1% of thickness measurement, whichever is greatest, when calibrated in accordance with Cygnus Instruments calibration procedure
<b>Resolution</b>	0.1mm (0.004") or 0.05mm (0.002") (selectable)
<b>Probe Options</b>	Single crystal probes
<b>Measurement Range in Steel</b>	1 – 250mm (0.040 in. – 10 in.) depending on selected probe and configuration, material and temperature
<b>Power</b>	NiMH rechargeable battery pack
<b>Battery Life</b>	12 hours' continuous operation
<b>Display</b>	Bright LED display
<b>Size</b>	235 x 75mm (9.252" x 3.000") (H x W)
<b>Weight</b>	910g (32 oz) with remote probe (inc. batteries)
<b>Operating Temp.</b>	-10°C to +50°C (14°F to 122°F)
<b>Certification</b>	<div> <b>ATEX</b>            II 1 G Ex ia IIC T6 Ga            (Tamb = -20°C to 40°C)            I M 1 Ex ia I Ma            (Tamb = 0°C to 45°C)            Certificate No. BAS00ATEX1108         </div> <div> <b>IECEX</b>            Ex ia IIC T6 Ga            (Tamb = -20°C to 40°C)            Ex ia I Ma            (Tamb = 0°C to 45°C)            Certificate No. IECEX BAS 19.0021         </div> <div> <b>UKEX</b>            II 1 G Ex ia IIC T6 Ga            (Tamb = -20°C to 40°C)            I M 1 Ex ia I Ma            (Tamb = 0°C to 45°C)            Certificate No. BAS21UKEX0661         </div> <div> <b>CSA</b>            Class 1 Group A, B, C, D Division 1         </div>
<b>Environmental Protection</b>	IP65
<b>Standards</b>	Designed for EN 15317
<b>Warranty</b>	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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