



Datasheet

1 Description

"A portable analyser for the direct and continuous measurement of dissolved hydrogen in both foundry and wrought aluminium alloys."

2 Technical Performance

2.1 Response time

Time to indicate equilibrium hydrogen concentration in a static melt typically 5 minutes from point of immersion. During continuous measurement of hydrogen thereafter, response time to a change in hydrogen concentration is <5 seconds.

2.2 Reproducibility

Reproducibility, +/- 0.01 ml/100g or 3% of hydrogen concentration.

3 Salient Features

3.1 The analyser unit

The analyser unit has the following features:

1. The unit is of robust and portable construction being set in a briefcase style aluminium carrying case.
2. The unit is provided with a touch screen which gives access to several display and diagnostics screen options.
3. The main screen shows continuous hydrogen and temperature readings together with sensor condition indicator and sensor failure alarm.
4. The second screen gives a real time and continuous graphic display plotting changes in both hydrogen level and temperature.
5. A data logger automatically records up to 100 days of measurements. Data history can be accessed directly via the touch screen or downloaded to a PC computer for subsequent conversion into a graph.
6. A third screen gives full diagnostic information on calibration constant settings and sensor outputs.
7. Maximum operating temperature 50°C.

3.2 The measuring probe

The measuring probe has the following features:

1. The probe is of metal and ceramic construction. Connection to the analyser is by an armoured cable with quick fit connectors on both ends.
2. The probe is fitted with a thermocouple for continuous measurement of metal temperature

3.3 The sensor

The sensor has the following features:

1. The sensor is individually calibrated.
2. The sensor is a replaceable unit with a quick screw fit onto the end of the probe.
3. The sensor is a self contained unit requiring no outside gas source for reference or purging purposes.
4. The sensor is capable of measuring and recording changes of hydrogen concentration during a degassing treatment with an inert gas.





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4 Analyser connections / maintenance

4.1 Power

The unit is suitable for use with all AC voltages between 85 and 265 V RMS (47 to 63 Hz), and requires 60 VA max. power. Voltage selection is automatic.

4.2 Ethernet

Ethernet socket is a 10 BaseT connection.

4.3 Analyser maintenance

Cleaning

Clean the analyser screen regularly using a soft cloth. Ensure no dirt / debris become attached to the screen or between the screen and analyser enclosure. *NOTE: Do not use solvents / cleaning products on touch sensitive screen or protective screen cover.*

Internal battery life

The analyser has an internal battery with a lifetime of 2 years. Please contact Foseco to arrange a replacement battery after this time.

