



## **PYROX Datasheet**

### **1 Description**

*"A portable analyser for the measurement of gas phase oxygen (PYROX O) or hydrogen (PYROX H)"*

### **2 Technical Performance**

#### **2.1 Response time**

90% response time to a change in gas concentration is < 5 seconds.

#### **2.2 Accuracy**

Accuracy, +/- 5% of gas concentration.

#### **2.3 Reproducibility**

Reproducibility, +/- 3% of gas concentration.

#### **2.4 Measurement range**

PYROX O: 10<sup>-20</sup> ppm – 100% oxygen

PYROX H: <ppm levels<sup>1</sup> – 100% hydrogen

#### **2.5 Temperature range**

PYROX O: 400 - 1300°C

PYROX H: 450 - 830°C

### **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 gas concentration 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 gas concentration 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 temperature

<sup>1</sup> Lower sensing limit for hydrogen depends on temperature and oxygen partial pressure. For measurement at ultra low hydrogen partial pressure please contact EMC Limited for advice.





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### **3.3 The sensor**

The sensor has the following features:

1. The sensor is individually calibrated.
2. The sensor is a replaceable unit.
3. The sensor is a self contained unit requiring no outside gas source for reference or purging purposes.

### **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. A 24V DC version is also available.

#### **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 EMC Limited to arrange a replacement battery after this time.

