

OxyAn remote auto-calibration application note.

The OxyPro PSA GPRS monitor system can be used to switch the OxyAn-200 oxygen analyser so as to implement remote auto-calibration. The OxyPro's relay #1 should be connected to OxyAn-200's auto-calibrate connector (J10.)

This allows the OxyAn-200 (which has auto-calibration solenoid valves) to be put into auto-calibration mode remotely with an SMS command from the OxyPro GPRS monitor. The OxyAn-200 switches the solenoids and directs the sample gas through the GAS REF input port on the front of the OXYAN-200's panel to the zirconium dioxide sensor. The OxyPro command is:

```
Password;Switch,1,ON;
```

The relay should be switched off by sending the following command straight after the ON command:

```
Password;Switch,1,OFF;
```

If this relay is left switched on, OxAn will switch the ref gas in and remain in this state. The 4-20mA output goes to 95.0% whilst in this mode.

During a normal auto-calibration cycle, the 4-20mA output goes to 95.0%.

The normal auto-calibration cycle sets the solenoid valves to direct the reference gas to the zirconium dioxide sensor for 15mins. This allows for a long period of settling time after which the auto-calibration is performed. After this period, the valves are switched allowing the measured gas to reach the sensor. Five minutes later, the 4-20mA output is switched on (from 95.0%) to allow the sensor readings to settle to the measured gas purity.

If the auto-calibrate relay is left on for an hour or more, no auto-calibration is performed once it is switched off.