



Recovering energy from coal without mining





Mojgan Mosleh of Cardiff University's Geoenvironmental Research Centre is currently researching the potential of recovering energy from existing coal seams without the need for mining.

To research this potential, Mojgan is using high pressure/high temperature apparatus to investigate different aspects of carbon sequestration in coal seams under in-situ conditions. The system requires a constant temperature of up to 65°C. To achieve this, Sensemaster used Watlow STL heaters 'daisy-chained' together, to provide uniform heat along the

pipeline infrastructure. To control the system, Sensemaster used Watlow STL heaters, thermocouples, Watlow PM controllers and SSRs to suit.

Mojgan was delighted with the performance of the system and reported back with: "Many thanks again for providing us with a fantastic heating controller and heater straps. It is a very handy and straightforward system and I am very happy to have such a system in the lab".

This system was supplied by Sensemaster, using Watlow products to provide 'the complete thermal solution'.



MICHELL overleaf



The Metron2 GPRS datalogger can take up to 4 inputs, programmed for analogue, digital, pulse, or on-board data logging, and transmit this information via text message to your mobile or to an online web viewing facility.

The unit can be battery powered, solar powered or you can power from an external power source. A text message can be sent from the Metron2 for up to 4 mobile phones at a change of state. Metron VIEW software can be used to monitor the process in real time. Typical applications include remote tank monitoring, intruder alarm, meter reading, high pressure warnings, but the flexibility of the unit allows it to be used for a multitude of process monitoring.

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Details on new products from Telco



Telco's SM9000 High-Power though beam

Telco's new SM9000 through beam sensor has a range of up to 70m. The SM9000 has been designed for hostile environments and provides the following advantages;



Easy Installation

The sensors are easy to align and require no complicated set-ups which guarantee effortless installation every time.

Water Resistance

The sensors are designed to withstand direct exposure to water and high pressure spray, and are capable of operating reliably in wet conditions.

Penetration Power

Telco's infrared sensors penetrate through any contamination and will operate relentlessly, even in the most hostile environments.



<u>Immunity to Light</u> No light will blind a Telco sensor. The sensors function in ambient or extraneous light.

Shock & Vibration Resistance

The sensors can tolerate severe vibrations and physical impact without affecting lifetime or hindering performance.

Dew-point measurement is relative



Sensemaster now offers solutions for monitoring dew-point, oxygen, moisture and relative humidity, using Michell Instrument's product range. The Michell range includes dew-point transmitters, dew-point meters, cooled mirror hygrometers, relative humidity sensors, process moisture analysers, hydrocarbon dew-point analysers, moisture in liquid analysers and oxygen analysers.





A range of high-precision capacitive moisture sensors are

available to help our customers measure trace moisture in their process applications. Relative humidity transmitters and temperature sensors are widely used to monitor the performance of compressed air driers, pharmaceutical storage and other production processes where controlled environmental conditions are critical.

We are also able to offer high-speed measurement of oxygen in a range of applications, including combustion optimisation for power stations, controlling levels of CO_2 for

breweries, and clean-gas processes such as silicon wafer production and pure gas generation. Intrinsically safe options of each instrument are available for explosive atmospheres.

The MDM300 offers portable dew-point measurement, allowing our customers to measure several areas using the same device. Dew-point measurement is used in a variety of industries including power generation, automotive, petrochemical, plastics, pharmaceutical semiconductor, and many more.



