

Application Notes...



Large structure construction

Traditional building methods were unsuitable for the control tower for Heathrow's Terminal 5, because conventional cranes or vehicles could not be used next to the existing, busy runway. Alternative methods were needed.

Brief given

When it is completed in 2006, the new control tower at Terminal 5 will, at 87m high, be one of the tallest control towers in the world. Building such a structure alongside an existing busy runway eliminated the possibility of using conventional methods. Instead, sections are built in position on the ground and successively raised so that the next section can be built underneath. A safety system was required to monitor both the strain and the power to the tethering system holding the tower in position.

The solution

Recognising that the system would only be needed during the construction period, Sensor-Technik developed a modular solution that could readily be used on subsequent projects. Fed by remote pressure sensors, the pressure monitoring box incorporated a display, facilities to define alarm set-points and local alarm-status indication. A further module with GSM modem provides the ability for alarms to be transmitted as SMS messages to a mobile phone. Pre-programmed messages can thus be sent to pre-set phone numbers, with the actual message and phone called dependent upon

the specific alarm or input conditions. There is also the ability to switch in a local standby power pack in case of power failure, giving 24/7 assurance to both on-site operators and off-site managers.

Implementation

Sensor-Technik designed and incorporated all the modules and cables, giving the contractor a simple plug-and-play installation.

The contractor easily set-up the system, with the ability to program the GSM module via his own mobile phone. The complete system was up and running within a matter of hours.

Conclusion

Through the development of a modular solution and with thorough testing in-house, Sensor-Technik not only resolved this particular application, but also provided a system that can be readily transferred to subsequent jobs, requiring nothing more complex than easy re-programming via a mobile phone.

Sensor-Technik

Complete solutions

Sensor-Technik is fully able to meet your systems needs, by offering a unique product design and manufacture facility to build up complete sub-assemblies where necessary, from development of specifications to delivery of the finished product, guaranteed to offer performance and reliability in even the toughest of environments.

With our in-house design capabilities, the resources of our own machining facilities, decades of applications experience and approvals from the likes of the Ministry of Defence and NATO, we can tailor a standard product to meet your exact requirements.

Sensors and displays

From pressure sensors to load cells to encoders – and many other electro-mechanical products besides – Sensor-Technik has one of the widest ranges of products available. Further, Sensor-Technik's sensor products are all available as standard with read-out units that provide clear indication of the parameter being measured.

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