

Application Notes...



Diesel engine generator sets

Diesel powered mobile electricity generators are used throughout the world to provide emergency back-up power, to provide added power for outdoor concerts, to meet power needs on construction sites, and to provide reliable power in remote areas where there is either an unreliable grid or no power at all.

Brief given

Whilst modern generators are frequently computer controlled, start-up can often be a problem as battery power can get too low for the computer systems and electronics to operate. Sensor-Technik was asked to develop a simple, electromechanical solution to this problem, providing a means to start the engine. Once running, the generator could be switched to power the on-board electronics.

The solution

Sensor-Technik recommended a motorised cam timer. This comprises a small DC motor, with a gearbox providing a full 360° turn in 60 seconds. Mounted on the shaft are several switches, which activate the equipment in stages as required.

Implementation

Sensor-Technik supplied a complete unit suitable for mounting directly onto a DIN rail. All that was then required was for a few wires to be connected, either on the production line or as an in-the-field modification.

The only issue for Sensor-Technik was to establish how many switches were needed and the precise switching timings. This was quickly established and the solution is now available as a standard product.

Conclusion

The world would be a much poorer place without the power of computer technology, but there are still key roles for good old fashioned electromechanical engineering in environments where power supplies are unstable or unreliable. This particular solution has proven very popular, thanks to its low construction cost and high reliability.

The motorised potentiometer is the ideal solution for the start-up operation of motors of large diesel engines, especially for emergency power supplies in countries where high tech electronics are still just a dream of the future and where the local service staff have little or no training in maintaining overly complex systems.

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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