



## **REQUIREMENTS FOR INTRINSICALLY SAFE TYPE TESTS**

### **Background:**

The purpose of a type test evaluation is to determine if the equipment or device can meet the requirements of SANS 60079-0 & SANS 60079-11. This is done by placing the test sample(s) under a variety of tests, some of which are destructive, as set out in the standards mentioned.

### **The submission of a new prototype shall include the following:**

- A working Sample (sample(s) will be available for collection after testing)
- Circuit diagrams
- Track layouts
- Bill of materials
- Gerber files (track en separation measurements)
- Datasheets will be requested on different components which will be communicated to the customer once the evaluation has started
- Datasheets on any internal wires or cabling
- Datasheet on the enclosure material (if applicable)
- Datasheet of the PCB material (FR4 material)
- If the operating voltage is higher than 10V, a CTI (comparative tracking index) reference will be required on the PCB material
- Datasheets of any casting compounds used
- Datasheet on internal battery (if used)
- Some tests specify sample quantities, these quantities will be discussed with the customer in advance (e.g. relays, piezzo devices, batteries etc.)

A predefined price on IS Type testing is not always possible due to the complexity of different devices. An accurate quote can be worked out if a sample, circuit diagrams and a bill of materials are submitted.

On receipt of acknowledgement of the quote in the form of a Purchase Order, then only will the evaluation start.

Testing without any complication can take up to 4 weeks depending on the current workload of the Laboratory, thereafter a report and certificate (if successful) will be issued to the customer. The customer will receive regular feedback as the Laboratory progresses with the evaluation. Any complications encountered during the evaluation period will be communicated to the customer immediately.