

## SUCCESS STORY

# EN 50271 and IEC 61508 SIL-1 Certification for IR Gas Sensors

### Business Problem

We were given the task of helping them achieve EN 50271 certification for the software first and then IEC 61508 SIL 1 safety certification for the entire sensor from Sira by preparing the necessary documentation.

### Implemented Solution

After thoroughly reading the standard text and utilizing our past experience, we penned down a minimal set of documentation required for assessment submission. At this stage we carefully extracted the software requirements from EN 50271 standard that were applicable to the sensors. Also at this point, we referred back to the parent standard IEC 61508 to make sure that we understood what was required in terms of software integrity.

To direct the software development activities, we prepared plan documents that included the Software Quality Assurance Plan including all the processes and procedures to be followed as per requirements of the certification standard.

Once the standard requirements were implemented into sensor's software, we entered into the testing phase. We performed rigorous functional and performance testing as per functional and performance test cases we had written.

### Business Results

Once this project closed, we were approached by another client who is a major player in Gas Detectors OEM. This company was stuck in a similar problem of lacking documentation for EN 50271 certification. We are currently working in similar fashion as described above to achieve EN 50271 accreditation for the gas detectors of this client.



### Client

**Our client is a major manufacturer of infrared sensors used in the Original Equipment Manufacturing (OEM). They supply these sensors to over 400 customers in 40 countries including all of the worldwide leading gas detection OEMs. The sensors manufactured have the most advanced technology with patents in most of the regions of the world.**