

Orbus® Hardwired Safety System - Product Profile



Technical Description

We have extensive experience gained over 40 years within the safety-related market. We are an independently accredited organisation, to supply systems based upon our Orbus® range and platform independent software based safety systems.

With our engineering capabilities we have executed projects with this equipment to meet highly onerous EMC, seismic and radiological conditions. Furthermore, we provide engineering services to facilitate the process in the determination, selection and specification of solutions to meet safety critical applications.

We have provided, across the globe, substantial numbers of systems for wide ranging applications within the Oil & Gas, Nuclear, Chemical, Pharmaceutical, Gas Distribution, Petrochemical, Power Generation and Defence Industries.

The Orbus® range is based on well-proven solid state technology that is inherently exceptionally reliable. With this range we are able to engineer systems that are pulse testable, fail-safe or combined. Additionally we are able to provide diverse systems for extremely onerous applications as particularly found within the Nuclear Industry. Typically this equipment is able to achieve very high levels of quantified safety integrity suitable for SIL 4 use.

The Orbus® range comprises of both pulse testable and fail-safe modules that utilise completely different principles of operation. Both of our pulse testable and fail-safe modules have SIRA (Evaluation International) product accreditation. The pulse testable range incorporates a patented, advanced automated on-line testing facility. This operates by continuous injection of fast pulses that exercises the inputs, the logic path and through to the output drivers. The automated testing is undertaken by a test management and data collection module that also provides general diagnostics, sequence of events time stamping and serial data acquisition.

Conversely our fail-safe range is inherently self tested by virtue of the use of a.c. coupled logic and, in addition to SIRA (EI) accreditation, have also undergone TÜV accreditation.



Orbus® Hardwired Safety Systems

To meet the demands of safety, environmental and asset protection in the process industries we continue to develop the Orbus® range of products and engineer these products into systems for specific applications as well as supplying OEM product for a number of clients.

Features:

- Extensively used in IEC61508 applications
- Type tested via TÜV, SIRA (SIREP/EI) & ERA
- High reliability systems to SIL 4
- Non software dependant, diverse to control systems
- Proven use in a vast installed base with over 25 years of application in all process markets
- Stable technology
- Fully deterministic FMEA disclosure to MIL217 & MIL338 with components classified as type 'A'

Key Business Benefits Derived

- Ensures verifiable protection of personnel
- Ensures verifiable protection of assets
- Confidence in using proven product based on simple and elegant design
- Major operating cost benefits from quantifiably reliable low spurious trip rate yielding high plant productivity (i.e. low down time)
- Major capital cost benefits based on SIL rating and availability for the majority of I/O profiles