



Summary

The Triconex Tricon Safety Instrumented System is designed to meet the needs of safety and critical control applications in oil and gas, power, refining, chemicals, pharmaceutical and biotech industries. It is based on industry leading TMR technology, is easy to operate and maintain and provides the lowest total cost of ownership.

Business Value

Triconex safety systems help customers protect their production assets and comply with rigorous environmental standards; in turn customers meet and exceed production targets by maintaining maximum process uptime by safely operating their plants.



Tricon Safety Instrumented System (SIL3)

ENSURING OPERATIONAL CONTINUITY AND MANAGING OPERATIONAL RISKS

InvenSYS is the only automation company with the experience and track record in safety and critical control as demonstrated by our 27 years of experience in safety systems, in excess of 8,000 installed systems, the only approved Nuclear Regulatory Commission Commercial off-the-shelf controller for Nuclear 1E applications, large number of TÜV certified Functional Safety Experts and Engineers, deployed world wide, and patented Triple Modular Redundant (TMR) technology.



Triconex Tricon

A powerful, scalable design with assurance of continuous operation, the Tricon system complies with international safety standards such as IEC61508 and fulfils the requirements for applications such as Emergency Shutdown (ESD), Fire and Gas Protection (F&G), Burner Management (BMS), High Integrity Pressure Protection (HIPPS) and Turbomachinery Control (TMC). The redundant high availability architecture provides a flexible, robust, reliable and powerful solution that is ideal for clients looking to achieve environmental and safety excellence.

The Tricon system is a must for clients who need to maximize the safety and performance of their assets. If you are challenged with reducing investment and lifecycle costs, meeting new safety standards, combating tough competitive pressure in your markets as well as the welfare of your employees and the environment, then the Tricon system is designed for you.

BENEFITS

- Maximizing process/plant uptime, productivity and yield
- Increased reliability and availability, performance and profitability
- Lowers investment and lifecycle costs
- Complies with International safety standards
- Meets safety targets
- Mitigates environmental impact
- Assists you in avoiding penalties or fines for non-compliance
- Enable you to achieve competitive advantage in your markets

KEY CAPABILITIES

- TÜV Certified up to SIL3 applications in accordance with International standard IEC61508
- Easily integrated with all major Distributed Control Systems
- On-line module replacement ensures plant availability by hot-swapping of modules
- Works with both centralized and distributed applications
- Comprehensive family of I/O modules
- HART protocol pass through to Asset Management Systems
- Fast program cycle time for TMC applications
- Expertise available from our TÜV certified Functional Safety Experts and Engineers
- Certified for use in non-incendive applications

TRICONEX TRIPLE MODULAR REDUNDANCY

Tricon operation is based on the principle of safety and high plant availability, which identifies and compensates for failed control system elements and allows on line replacement while continuing its assigned task without interrupting the controlled process. Fault Tolerance is achieved through TMR technology.

TMR employs three isolated, parallel control systems and extensive diagnostics integrated into one system. The Tricon system uses two-out-of-three (2oo3) voting to provide high integrity, error-free, uninterrupted process operation with no single point of failure. Setting up applications is simplified with the Tricon, because the TMR system operates as a single control system from the user's point of view. The extensive diagnostics are inherent and transparent to the programmer.

Use of the Tricon continues to expand into new industries and applications as customers require increased system safety and/or high availability. Today, Invensys has delivered and installed Triconex safety system solutions in over 70 countries, providing increased safety and high process uptime.

