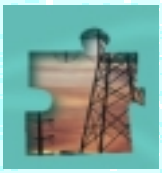
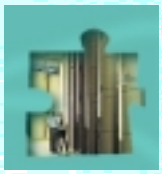
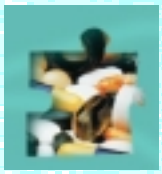
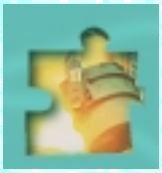
Triguard PC1 and PC2









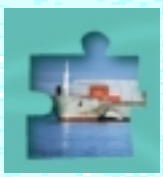


ABB August

Pre-Configured Safety Systems

Typical Triguard PC2 System

TÜV PRODUCT SERVICE

Fault Tolerant Certified Safety System

- Lowest priced Triple Modular Redundant system
- Complete System:
  - Input/Output modules
  - 4 communication ports
  - Redundant power supplies
  - Cabinet completely wired
  - Tested and ready for installation
- Safe, reliable operation with Triguard from **ABB – A World Class Company**

ABB

Triguard Pre-Configured (PC) Systems

ABB August has created two standard pre-packaged TMR systems to meet the needs of smaller applications and safety system retrofits.

PC1 is a single chassis system capable of controlling from 25 to 250 TMR I/O. PC2 is a two chassis system capable of handling from 250 to 450 TMR I/O channels.

Triple Modular Redundant (TMR) Architecture

The Triguard TMR Fault Tolerant Safety Control System gives users the maximum level of fault tolerance, reliability and availability (in excess of 99.999%) to meet SIL levels 1 through 3 (ANSI/ISA S84.01, IEC 61508).

Fault Tolerant Control – *"The ability of a system to perform its designed function, during a failure of any of its control system elements. The system must identify and allow repair of the failed elements, without degrading system performance."*

Triguard Hardware

PC Systems

Technical information, specifications and certifications can be found in the Triguard SC300E Product & Application Guide.

In a Triguard PC system, the chassis, I/O modules and termination modules (as above), are installed in a cabinet complete with power distribution and I/O cabling, ready for field installation. I/O module and termination module types and locations are according to customer specifications. All other details of the design are per the standard design package. The standardization of design allows ABB August to provide high quality pre-configured systems (PC1 and PC2) at competitive prices (lower than other TMR or traditional dual systems) with fast delivery.

Why Pre-Configured Systems?

Not all safety systems applications require complex custom engineered solutions.

Use PC systems for:

- Small Emergency Shutdown (ESD), Fire & Gas (F&G) and Critical Control applications
- Directly replacing old simplex PLC or relay panel systems
- When retrofits are hard to justify
- When delivery times are critical

PC System Typical Application

Typical retrofit applications for small systems (less than 450 I/O) including:

- Compressors
- Furnaces
- Process Heaters
- Boilers
- Distillation Columns
- Process Reactors

International Standards

Quality

The ABB August quality system meets International Standards and is certified to the requirements of BS EN ISO 9001 1994, Certificate Number FM 1353 for safety systems and products. In addition, ABB August is accredited to meet ISO 9000-3 for the development and maintenance of safety software. The certification for Quality Assurance at ABB August, covers all aspects of design, manufacturing, testing, software verification, software validation and service activities.

Third Party Certification

With the ever increasing demand for independent international certification and end user specific approvals, ABB August's products meet the requirments outlined in the standards and guidelines as follows:

TUV Product Services - Safety Critical Application Class 5 and 6

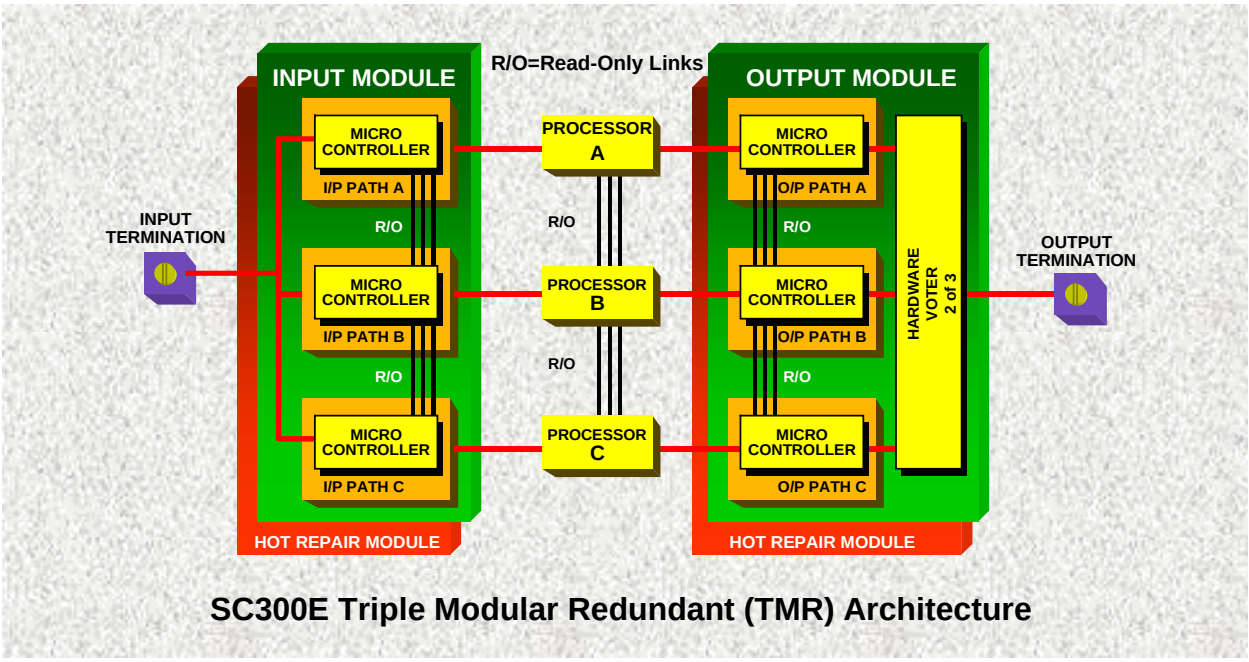
European Union CE Mark

Canadian and US Standards – UL/C

GOST - Russian Guidelines for safety related systems

IEC 61508 and ANSI/ISA S84.01

ABB Safety



SC300E Triple Modular Redundant (TMR) Architecture

ABB August Triguard SC300E is the evolution of 20 years of combined vendor and customer experience integrated into the design of the ultimate TMR product.

Building on a proven platform, the **Triguard SC300E** combines features that will *maintain excellence well into the next century!*

With Global Support Services, the resources and expertise within the company, can be channelled into any region as required to suit a particular customer demand.

ABB August is the leading supplier of fault tolerant Triple Modular Redundant products and systems for emergency shutdown, fire and gas and critical control applications.

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