

Certificate



No.: 968/FSA 1072.00/16

Functional Safety Assessment

Certificate Holder	Alstom Power Systems 3 Avenue André Malraux 92309 Levallois-Perret Cédex France	Manufacturer	GE Energy Connections GE Automation & Controls 14 rue Jean Bart 91300 Massy France
Subject	Safety functions of the Safety Controller CE1500-S for ControSteam R30T15S Steam Turbine Controller		
Type Designation	Safety Controller CE1500-S for ControSteam R30T15S Steam Turbine Controller		
Codes and Standards	IEC 61508 Parts 1-7:2010	IEC 61511 Parts 1-3:2004	

Scope and Result

Subject of this assessment are the safety functions including hardware, software, openSAFETY protocol and logic of the Safety Controller CE1500-S for ControSteam R30T15S Steam Turbine Controller for fulfilment of the requirements of the applicable safety standards IEC 61508 and IEC 61511. The necessary sensors and actuators for the final realization of the safety functions are out of scope of this assessment.

Specific Provisions

Result: The safety functions of the Safety Controller CE1500-S for ControSteam R30T15S Steam Turbine Controller fulfill the requirements for SIL 3 acc. to IEC 61508 and IEC 61511.

The installation/safety manual as well as the safety requirements for the parameterization of the generic safety functions must be considered for the integration of the Safety Controller CE1500-S for ControSteam R30T15S Steam Turbine Controller in specific steam turbine applications. Partial Proof Tests have to be performed every month by the operator of the ControSteam R30T15S and at every outage of the turbine as specified in the safety manual. Maximum lifetime of the safety components is 20 years. Any change in type of used hardware or software design requires a reconsideration and impact analysis of the modified system.

Response time: < 100 ms

Further information can be found in the product safety data sheet (customer document ID: GFR-020C03110-EDA-202552-en-A).

Valid until 2021-02-18

The assessment report-no.: 968/FSA 1072.00/16 dated 2016-02-09 is an integral part of the certificate. This certificate is specifically valid for the above mentioned system/subsystem/safety function only. It becomes invalid, if any unapproved changes are implemented without prior assessment/approval by the certification body. Authenticity and validity of this certificate can be verified through the above indicated QR-code or at <http://www.fs-products.com>.

TÜV Rheinland Industrie Service GmbH

Bereich Automation
Funktionale Sicherheit

Am Grauen Stein, 51105 Köln

Köln, 2016-02-18

Certification Body for FS-Applications

Dr.-Ing. Thorsten Gantevoort