

Certificate



No.: 968/FSA 1193.00/19

Functional Safety Assessment

Certificate Holder	Emerson Process Management Chennai PTE Ltd. No. 147, Rajiv Gandhi Salai, OMR Chennai – 600097 India
Subject	Design and engineering of R13A-HIPPS-SIF-R-13A related to ONGC R Series R-13A Well platform
Type Designation	R13A-HIPPS-SIF-R-13A SIF Tag: SIF-R-13A
Codes and Standards	IEC 61511-1:2016+ Corr.1:2016 + IEC 61508-2:2010 (in extracts) AMD1:2017
Scope and Result	FSA Stage 2 assessment within the scope of IEC 61511 SLC limited to Phase 4 for the Safety Instrumented System (incl. the IFAT): HIPPS of ONGC R Series R-13A Well platform. SIF: HIPPS is to close the shutoff valves on detection of high high pressure in the line. The assessment of the Certification Body came to the result that the documented design, engineering, fault avoidance and including validation activities comply with the requirements of IEC 61511 (Phase 4 of SLC) for SIL 3. Mode of operation: Low Demand Mode, Proof test interval: 1 year (full test); PFDavg = 7.66E-4
Specific Provisions	The project related safety manual(s) and the safety documentation delivered by the SIF element suppliers have to be considered. Any change in type of firmware of applied hardware and/or software modules and changes in the application logic requires a reassessment of the whole system. The validation of the above HIPPS regarding SAT is not covered by this assessment.

The assessment report-no.: 968/FSA 1193.00/19 dated 2019-04-22 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

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Köln, 2019-05-13

Certification Body for FS-Applications

Dr.-Ing. Thorsten Gantevoort