

# exSILentia: Proof Test Generator Plug-In

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**PLUG-IN**

## Automate tests generation and increase effectiveness

The objective of a proof test is to test for any failures that are not revealed during normal operation, i.e. any failures that are not detected by automatic diagnostics.

## **PROOF TEST GENERATOR**

Proof test frequency and proof test effectiveness directly impact the achieved SIL of each Safety Instrumented Function.

The exSILentia team has automated the creation of a proof test plan, saving you hours of engineering time. Based on the equipment items you selected during your SIL verification work, the Proof Test Generator Plug-in will extract the associated suggested proof tests and create a proof test report. Executing the latter will ensure that the claimed rates of proof test coverage are achieved. exida makes your functional safety life-cycle compliance easier.

### **Proof Testing and Functional Safety**

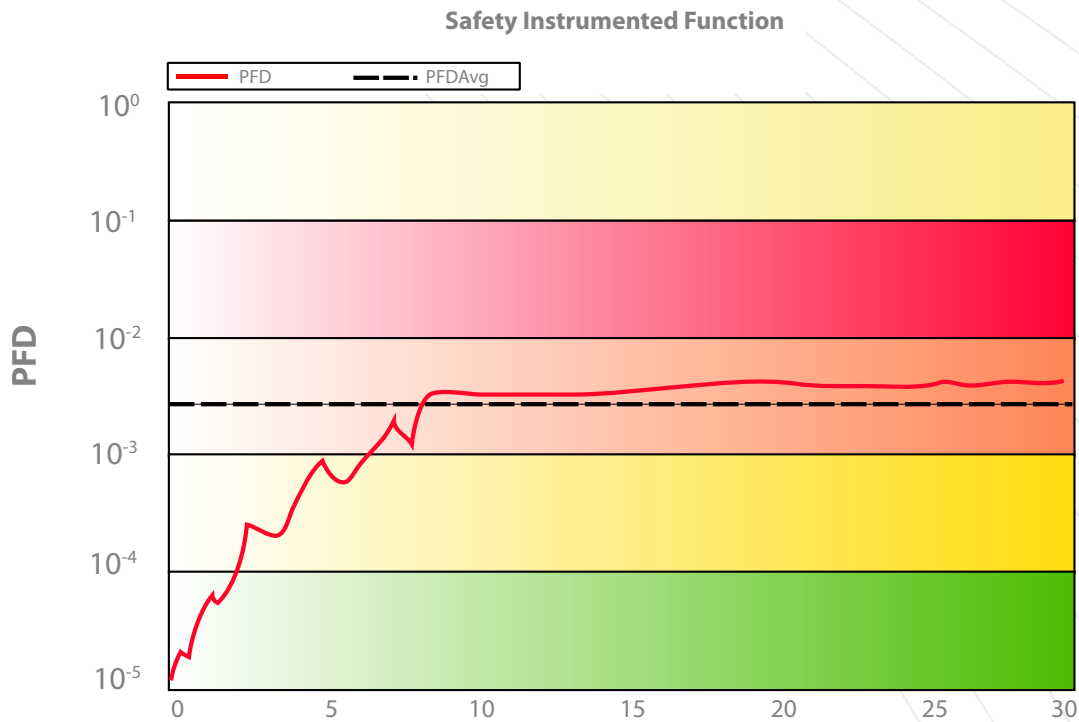
A proof test is a manual test designed to reveal failures undetected by automatic device diagnostics. Proof test intervals can vary from monthly to every 5 years or longer. Typically there will be an overall requirement for the plant to avoid interruptions, so the SIF designed will need to balance process interruptions versus safety. Generally speaking, when more frequent proof testing of equipment is implemented, a higher level of safety can be achieved. Similarly, if a more comprehensive proof test is executed (higher proof test coverage), a safety function will achieve a higher level of safety.

By automatically generating the draft proof test plan using the exSILentia Proof Test Generator Plug-in, it is assured that all assumptions on proof tests steps and frequency are reflected in the proof test plan. This guarantees that the functional safety of the SIF will be maintained in the operational phase of the Safety Life Cycle.

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## Proof Test Info:

- ◇ Equipment Name, Tags
- ◇ Proof Test Interval
- ◇ Proof Tests Steps
- ◇ Proof Test Coverage
- ◇ Date and Result of Test
- ◇ Proof Test Steps and Proof Test Coverage are directly pulled from the equipment database
- ◇ Improved consistency during life cycle
- ◇ Reduced engineering hours and increased efficiency
- ◇ Automatic documentation of test plan
- ◇ Test information directly from equipment database



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