# SIS Proof**Check**™

Complete SIS Testing Out of The Box

Safe, Quick, Return to Operations

SIS ProofCheck™ delivers Safety Instrumented System (SIS) testing out of the box. It incorporates all elements of proper SIS testing in a single solution. SIS ProofCheck encompasses testing field devices, wiring, signal conditioners, safety logic, BPCS logic, final control element response, and manually entered data. The entire procedure is captured electronically and displays pictures, manuals, and any information the user needs to perform the tests. All information is captured in a database and displayed in our built-in reports.
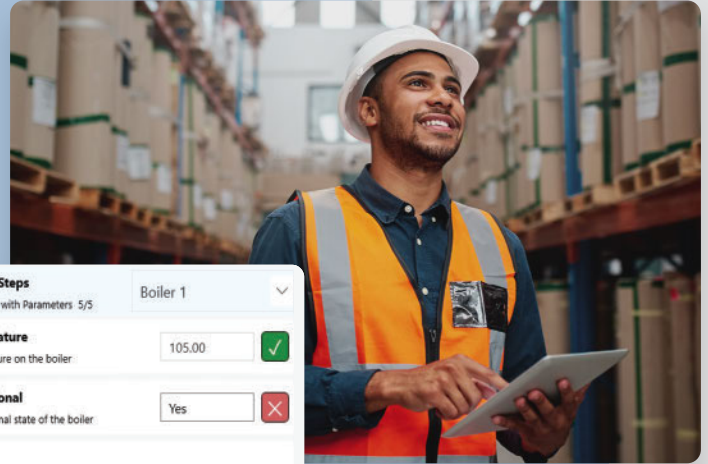
Boiler 1 Manual Steps	Boiler 1	
Boiler 1 Manual Steps with Parameters 5/5		
Boiler 1:Temperature Record the temperature on the boiler	105.00	✓
Boiler 1:Operational Records the operational state of the boiler	Yes	✗
Information This is an example information step		
Acknowledge An example Acknowledge Step	✓	✓
Boiler 1 Pressure Example of a Single QuickStep	►	✓
Boiler 1 Pressure Manual Fill in full quick step group	►	✗
Boiler 2 Steps Boiler 2 Steps 2/2	Boiler 2	⌄
Boiler 2:Temperature Record the Active tempertature	78.00	✓

Intelligent Field Device Loop Testing

Periodic SIS testing should include sending a signal from the instrument, to verify not only the instrument, but also the wiring and signal conditioners in the path to the SIS/BPCS systems. Sending technicians to the field with handheld communicators to manually place smart devices in loop test mode is time intensive, error-prone, and may expose the field technician to a variety of hazards including heights, temperature extremes, and chemicals.

With SIS ProofCheck, you can group, monitor, and fix the output of transmitters from a workstation or from a tablet in the field. This non-intrusive testing automatically returns devices to their proper state after testing. Avoid false start Return to Operation (RTO).

SIS ProofCheck allows for automated testing of your plant's SIS voting logic.

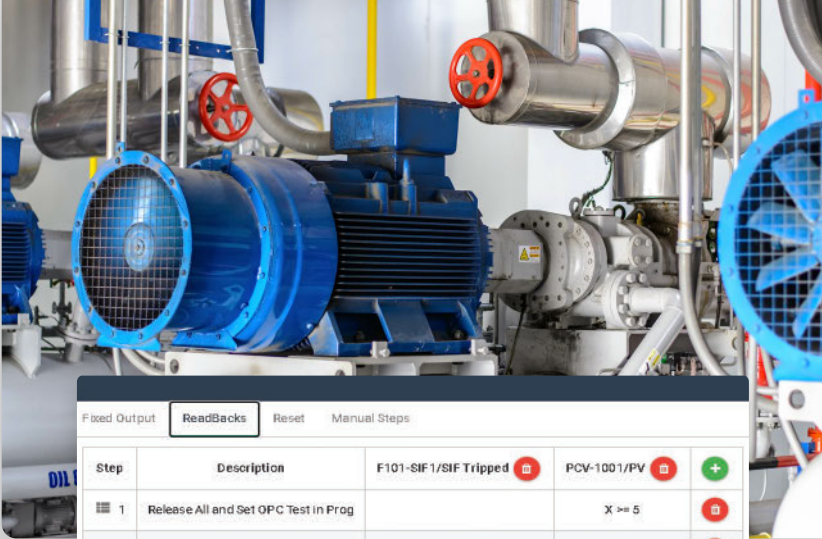|	Fixed Output	ReadBacks	Reset	Manual Steps	
Step	Description		PT-1001-1/PV	PT-1001-2/PV	
1	Release All and Set OPC Test In Prog		◄◄	◄◄	
2	Only Pressure 2 High		25 %	300 psi	
3	Pressure 2 & 3 High - Trip		25 %	300 psi	
4	Reset Trip		25 %	25 %	
5	Pressure 1 & 3 High - Trip		300 psi	25 %	
6	Reset Trip		25 %	25 %	

Record BPCS/SIS Systems Response

While simulating the field devices, SIS ProofCheck records the responses from your BPCS/SIS system and HART field devices, automatically verifying that the test criteria are met.

For systems such as Emerson's DeltaV™ SIS, SIS ProofCheck can even verify that the safety logic has not changed by verifying the SIS System CRC codes.

SIS ProofCheck ensures the BPCS/SIS/Final Control elements proceed to their safe state.

	Step	Description	F101-SIF1/SIF Tripped 🗑	PCV-1001/PV 🗑	➕
☰	1	Release All and Set OPC Test in Prog		X >= 5	🗑
☰	2	Only Pressure 2 High	X = 0	X >= 5	🗑
☰	3	Pressure 2 & 3 High - Trip	X = 1	X < 2	🗑
☰	4	Reset Trip	X = 0	X >= 5	🗑
☰	5	Pressure 1 & 3 High - Trip	X = 1	X < 2	🗑
☰	6	Reset Trip	X = 0	X >= 5	🗑
☰	7	Pressure 1 & 2 High - Trip	X = 1	X < 2	🗑
☰	8	Reset All			🗑

Fixed Output | ReadBacks | Reset | Manual Steps
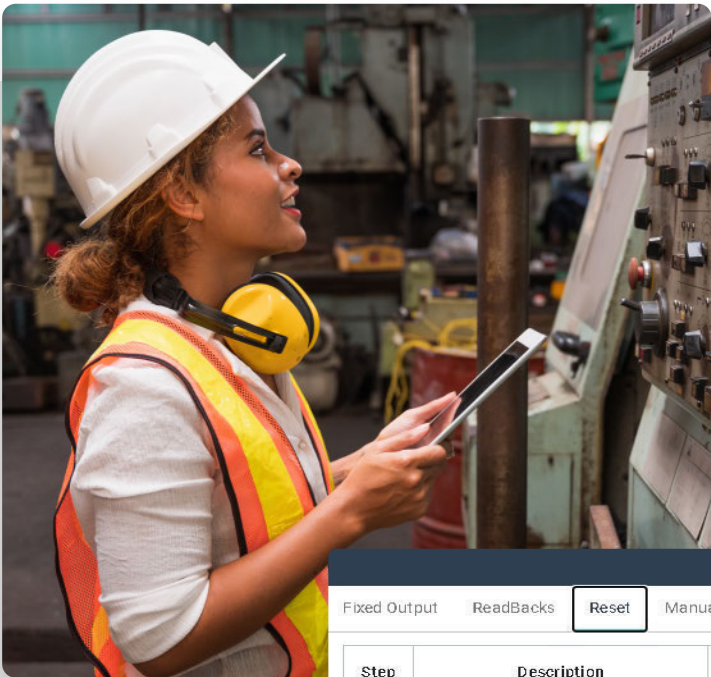
Set BPCS and BPC Outputs/Flags

Often tests require a value to be changed in the BPCS system. SIS ProofCheck allows setting of BPCS values. The test procedure can set a test in progress flag, set a recipe variable, enable/disable alarms, or any other required value. Automated BPCS trip resets or alarm acknowledgements can also be set by SIS ProofCheck.

Fixed Output | ReadBacks | Reset | Manual Steps

	Step	Description	F101-SIF1/Test in Progress 🗑	F101-SIF1/SIF Reset 🗑	➕
☰	1	Release All and Set OPC Test in Prog	1		🗑
☰	2	Only Pressure 2 High			🗑
☰	3	Pressure 2 & 3 High - Trip			🗑
☰	4	Reset Trip		1	🗑
☰	5	Pressure 1 & 3 High - Trip			🗑
☰	6	Reset Trip		1	🗑
☰	7	Pressure 1 & 2 High - Trip			🗑

Capture Manual/Visual Verification

Not everything can be automated. SIS ProofCheck captures any manual/visual verification the operator or technician needs to record/perform.
Manual verifications can capture items like:

- Did the valve stem move?
- Did the light/siren activate?
- Instruct an operator to press the reset button after a trip
- Set/reset a breaker
- Any manual action
- Operators can add notes/pictures to the record

Built-In Reports

Our built-in reports provide all the information needed for auditing and quickly determining what needs to be fixed. Reports expedite safe and efficient return to operation.