



Checksheets

Fire & Gas Detection System Inspection and Testing

Doc: FG-DET-001

Rev: 1.0

Date: 22/01/2026

Project Name: Checksheets.com	Project Code: CHKSHEETS1
Equipment Tag: -----	System: -----
Discipline: Fire & Gas	Location: -----
Contractor: -----	Date: 22/01/2026

1. General Information and Documentation

Project information, drawings verification, and preliminary checks

#	Activity / Check Item	Response		
1	Verify F&G Layout Drawing number and revision are current <i>Ref: Project Drawing Register</i>	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
2	Verify F&G Cause & Effect Drawing number and revision are current <i>Ref: Project Drawing Register</i>	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
3	Confirm Loop Drawing details match I/O schedule and project data sheets	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
4	Verify manufacturer's operation manual is available on site	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail

2. Pre-Energization Checks

Safety and installation verification before system energization

#	Activity / Check Item	Response		
5	Confirm all cables are installed and fully terminated	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
6	Perform cold wire loop check in accordance with loop diagram	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
7	Verify all EOL and inline resistors/diodes are installed with correct values <i>Record resistor/diode values if required</i>	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
8	Check loop power fuse rating and negative links are correct	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
9	Verify loop power is available per electrical interfaces	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail

3. Detection Device Physical Inspection

Physical condition and installation verification of detection devices

#	Activity / Check Item	Response		
10	Confirm no physical damage to detector housing or components	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
11	Verify device location and elevation per F&G layout drawing	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
12	Confirm installation is secure and free from excessive vibration	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail
13	Verify sensing area is unobstructed and per design requirements	<input type="checkbox"/> Pass	<input type="checkbox"/> N/A	<input type="checkbox"/> Fail

14	Clean lenses/optics per manufacturer's instructions <i>Document cleaning procedure used</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail

4. Gas Detection Device Testing

Functional testing specific to gas detection devices

#	Activity / Check Item	Response		
15	Apply power and allow detector stabilization per manufacturer's requirements <i>Record stabilization time required</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
16	Verify correct sensor type is installed for target gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
17	Record calibration test gas type and concentration used <i>Include LEL percentage for combustible gas</i>			
18	Perform function test using appropriate calibration gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
19	Verify response time meets manufacturer's specification <i>Record actual response time</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
20	Record low alarm setpoint			
21	Record high alarm setpoint			

5. Fire Detection Device Testing

Functional testing specific to fire detection devices

#	Activity / Check Item	Response		
22	Verify heat detector operates at correct temperature setpoint <i>Only applicable for heat detectors</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
23	Test flame detector using appropriate test source <i>Only applicable for flame detectors</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
24	Verify UV/IR flame detector spectral response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
25	Test manual call point operation <i>Only applicable for manual call points</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail

6. Alarm and Indication Verification

Verification of all alarm outputs and system indications

#	Activity / Check Item	Response		
26	Verify alarm indications at F&G input module	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
27	Confirm alarm display at DCS HMI graphics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
28	Verify alarm indication at Fire Control Panel/Matrix Panel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
29	Test audible alarm devices activation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
30	Test visual alarm devices (beacons/strobes) activation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
31	Verify all visual indication outputs per Cause & Effect drawing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail

7. System Integration and Loop Stability

Overall system performance and stability verification

#	Activity / Check Item	Response		
32	Perform complete loop function test per loop diagrams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail

33	Confirm loop stability with no fault or alarm indications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
34	Verify automatic system reset functionality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
35	Test manual reset capability from control panels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
36	Verify fault indication for broken/shorted loops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail

8. Documentation and Test Equipment

Final documentation checks and test equipment records

#	Activity / Check Item	Response		
37	Confirm as-built documentation is complete per project procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Pass	N/A	Fail
38	Record all test equipment used with calibration dates <i>Include make, model, serial number, and calibration expiry</i>			
39	Document any punch list items identified			
40	Obtain required signatures for completion and acceptance			

Prepared By:

Reviewed By:

Approved By:

Date: _____ Sign: _____

Date: _____ Sign: _____

Date: _____ Sign: _____