

VIDE PR.NO: 1100011164

Scope

This QA plan covers the responsibilities, necessary requirement/compliance for inspection, testing, calibration, documentation, and acceptance of dew point transmitters used in compressed air system dryer of **OPGC#1&2**.

Applicable Standards & References

- **PO text /Specification**

1. General Performance & Testing

- **IEC 61298**
→ Covers performance evaluation (accuracy, repeatability, response time)
- **IEC 60770**
→ Specifies performance requirements specifically for transmitters

2. Electromagnetic Compatibility (EMC)

- **IEC 61326**
→ Ensures transmitter works without interference

3. Explosion / Hazardous Area Certification

- **IEC 60079**
→ Required for transmitters used in hazardous areas (oil & gas, chemicals)
- ATEX (Europe) & IECEx certification often follow this standard

4. Ingress Protection (IP Rating)

- **IEC 60529**
→ Defines protection against dust and water (e.g IP67)

5. Functional Safety

- **IEC 61508**
→ Used for SIL (Safety Integrity Level) certification
- **IEC 61511**
→ Applies in process plants using transmitters in safety loops

6. Pressure-Specific Standards

- **ASME B40.100**
→ Related to pressure measurement devices
- **ISO 2186**
→ Covers installation practices for pressure/flow measurement

7. Flow Measurement Standards

- **ISO 5167**
→ Covers orifice plates, venturi tubes, etc.
- **ISO 4064**
→ Used for water flow measurement devices

8. Communication Protocols

- **HART Protocol**

9. Calibration & Quality

- **ISO 9001**
- **ISO IEC 17025**

Responsibilities

Role	Responsibility
QA/QC Engineer	Ensure compliance with specs, inspect and validate documents
Vendor	Manufacture, test, and deliver conforming instruments with proper documentation

Inspection & Testing Plan

Activity	Responsible Party	Reference Standard	Record
Visual Inspection	QA/QC Inspector	PO Spec	Inspection Report
Functional Test	Vendor / End User	IEC / Internal SOP	Test Report

Activity	Responsible Party	Reference Standard	Record
Calibration Check	Vendor	NIST/PTB traceable	Calibration Certificate

Documentation Requirements

Vendor must provide:

- Calibration certificate (traceable to NIST or national standard)
- Instruction manual and installation guide
- Inspection & quality conformance documents

Delivery & Storage

- Transmitters must be packed in anti-static and moisture-proof packaging
- Include desiccants and humidity indicators
- Storage temperature limits must be marked on packaging

Site Acceptance Testing (SAT)

Performed by OPGC team after delivery:

- Verify model and serial number
- Confirm calibration and operation under actual process conditions (If reqd)
- Confirm integration with control system (PLC/DCS/Local Controller) (If reqd)