Date of issue:
February 2024

Affected publication:
IOGP S-718Q, Specification for Basic Process Measurement Instruments, First Edition, September 2022, including Addendum 1, December 2023

ADDENDUM 2 FOR PUBLIC REVIEW

This addendum will replace Edition 1.0 published in September 2022 and Addendum 1 published in December 2023.

While this addendum primarily adds requirements and data sheet elements for additional level instruments, due to the extent of updates, it should be treated as a new document.

Public Review Draft

International Association of Oil & Gas Producers

SPECIFICATION

IOGP S-718Q

February 2024

Version 1.011

ADDENDUM 2 TO FIRST EDITION (SEPTEMBER 2022)

Quality Requirements for Basic Process Measurement Instruments

Public Review Draft

JIP33 JOINT INDUSTRY PROGRAMME

Revision history

VERSION	DATE	PURPOSE
1.011	February 2024	Addendum 2 for Public Review
1.01	December 2023	Addendum 1
1.0	September 2022	First Edition

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Acknowledgements

This IOGP Specification was prepared by a Joint Industry Programme 33 Standardization of Equipment Specifications for Procurement organized by IOGP with support by the World Economic Forum (WEF).

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Foreword

This specification was prepared under Joint Industry Programme 33 (JIP33) "Standardization of Equipment Specifications for Procurement" organized by the International Oil & Gas Producers Association (IOGP) with the support from the World Economic Forum (WEF). Companies from the IOGP membership participated in developing this specification to leverage and improve industry level standardization globally in the oil and gas sector. The work has developed a minimized set of supplementary requirements for procurement, with life cycle cost in mind, resulting in a common and jointly agreed specification, building on recognized industry and international standards.

Recent trends in oil and gas projects have demonstrated substantial budget and schedule overruns. The Oil and Gas Community within the World Economic Forum (WEF) has implemented a Capital Project Complexity (CPC) initiative which seeks to drive a structural reduction in upstream project costs with a focus on industry-wide, non-competitive collaboration and standardization. The CPC vision is to standardize specifications for global procurement for equipment and packages. JIP33 provides the oil and gas sector with the opportunity to move from internally to externally focused standardization initiatives and provide step change benefits in the sector's capital projects performance.

This specification has been developed in consultation with a broad user and supplier base to realize benefits from standardization and achieve significant project and schedule cost reductions.

The JIP33 work groups performed their activities in accordance with IOGP's Competition Law Guidelines (November 2020).

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Introduction

The purpose of this quality requirements specification (QRS) is to specify quality management requirements and the proposed extent of purchaser intervention activities for the procurement of basic process measurement instruments in accordance with IOGP S-718 for application in the petroleum and natural gas industries.

Purchaser intervention activities are identified through the selection of one of four conformity assessment system (CAS) levels based on a risk and criticality assessment. The applicable CAS level is specified by the purchaser in the procurement data sheet or purchase order.

This QRS shall be used in conjunction with the specification (IOGP S-718), the procurement data sheet (IOGP S-718D) and the information requirements specification (IOGP S-718L) which together comprise the full set of specification documents. The introduction section in the specification provides further information on the purpose of each of these documents and the order of precedence for their use.

JIP33 Specification for Procurement Documents
Quality Requirements Specification (QRS)

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1 Scope

To specify quality management requirements for the supply of basic process measurement instruments to IOGP S-718 including:

a) supplier quality management system requirements;

b) purchaser conformity assessment (surveillance and inspection) activities;

c) traceability requirements.

2 Normative references

For the purpose of this document, the documents referenced in IOGP S-718 and those listed below, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Specification Q1, *Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*

IOGP S-718, *Specification for Basic Process Measurement Instruments*

ISO 9001, *Quality management systems — Requirements*

ISO 29001, *Petroleum, petrochemical and natural gas industries — Sector-specific quality management systems — Requirements for product and service supply organizations*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in IOGP S-718 and ISO 9000 (normative to ISO 9001), and the following shall apply.

3.1
conformity assessment
demonstration that specified requirements are fulfilled

Note 1 to entry: Conformity assessment (or assessment) includes but is not limited to review, inspection, verification and validation activities.

Note 2 to entry: Assessment activities may be undertaken at a supplier/sub-supplier's premises, virtually by video link, desktop sharing, etc. or by review of information.

3.2
conformity assessment system
CAS
system that provides different levels of purchaser interventions to assess and verify supplier conformance to specified requirements

Note 1 to entry: CAS A applies to the highest risk and associated extent of verification. CAS D is the lowest.

3.3
hold point
H
<conformity assessment> point in the chain of activities beyond which an activity shall not proceed without the approval of the purchaser or purchaser's representative

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3.4
witness point
W
<conformity assessment> point in the chain of activities that the supplier shall notify the purchaser or purchaser's representative before proceeding

Note 1 to entry: The operation or process may proceed without witness if the purchaser does not attend after the agreed notice period.

3.5
surveillance
S
<conformity assessment> observation, monitoring or review by the purchaser or purchaser's representative of an activity, operation, process, product or associated information

3.6
review
R
<conformity assessment> review of the supplier's information to verify conformance to requirements

4 Symbols and abbreviations

For purposes of this document, the following symbols and abbreviations apply.

CAS conformity assessment system

IRS information requirements specification

QMS quality management system

QRS quality requirements specification (this document)

5 Quality requirements

5.1 Quality management system

The supplier shall operate and maintain a quality management system (QMS) that conforms with ISO 9001, ISO 29001, API Specification Q1 or an equivalent quality management system standard.

5.2 Conformity assessment system (CAS)

5.2.1

The conformity assessment system (CAS) provides different levels of assessment of the supplier control activities. The CAS level is defined by the purchaser, using a risk-based approach, and included in the purchase order/contract. The defined CAS level may be adjusted by the purchaser during manufacture based on supplier performance and re-assessment of risk.

NOTE For industrial proven solutions, CAS level D is specified unless risk assessment indicates that a more stringent CAS level is required.

5.2.2

Quality plans and inspection and test plans shall include provision for purchaser intervention activities based on the CAS level selected in the procurement data sheet or purchase order. See Annex A.

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5.2.3

Supplier performance in meeting the requirements may be routinely assessed during execution of the scope and where appropriate, corrective action requested and conformity assessment activities increased or decreased consistent with criticality and risk.

6 Certification and traceability

Material certification and traceability shall be maintained in accordance with IOGP S-718 and IOGP S-563 where applicable. Where material certification and traceability requirements are not specified in these specifications, material certification and traceability shall be maintained in accordance with Annex B.

7 Evidence — conformance records

Documents and information shall be provided for in accordance with the associated IRS.

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Annex A
(normative)
Purchaser conformity assessment requirements

This annex defines four conformity assessment systems (CAS) or levels of purchaser assessment.

	PURCHASER ASSESSMENT ACTIVITIES	CAS			
		A	B	C	D
1	**Operational planning and control activities**				
1.1	Inspection and test planning (IOGP S-718, 4.1.2.1, 4.1.2.4)	H	H	W	R
1.2	Pre-production start readiness review (IOGP S-718, 1.1)	H	H	S	-
2	**Design and development activities**				
2.1	No applicable activities	-	-	-	-
3	**Control of external supply**				
3.1	External supply scope, risk assessment and controls	W	R	-	-
4	**Production and service provision**				
4.1	Material verification				
4.1.1	Positive material identification (IOGP S-718, 4.3.1.2.1, 4.4.2.3, 7.2.1.1, 7.2.3.1)	W	W	R	R
4.1.2	Instrument coating verification	W	R	R	R
4.1.3	NDE for pressure-containing parts (IOGP S-718, 4.4.2.1, 4.4.2.2)	W	R	R	R
4.2	Manufacturing inspection and test activities				
4.2.1	Hydro test and performance test (IOGP S-718, 4.4.1)	W	W	R	R
4.3	Final inspection and testing				
4.3.1	Visual and dimensional inspection (IOGP S-718, 4.1.2.4, 4.1.3.1, 4.1.3.2, 4.1.6, 4.1.7.3, 4.1.7.5, 4.3.2.1, 4.3.2.3, 4.3.2.4, 4.3.3.1, 4.3.3.2, 4.4.1.3, 4.5.2 - 4.5.4, 5.2.5, 5.3.1, 5.3.2, 5.3.5, 5.4.4, 5.4.5, 5.4.8, 5.4.12 - 5.4.14, 6.1.8, 6.3.4, 6.3.6, 6.3.7, 6.3.14, 7.1.4, 7.2.1.2, 7.2.1.4, 7.2.2.3, 7.2.2.4, 7.2.2.6, 8.2.1.4, 8.2.1.8, 8.3.2.3, 8.3.5.2 - 8.3.5.4)	W	W	R	R
4.3.2	Functional tests (IOGP S-718, 4.1.2.3, 4.1.3.4, 4.1.7.4, 4.3.1.2.4, 5.1.3, 5.1.4, 5.4.9, 6.1.6, 6.3.9, 7.2.4.2, 7.3.1, 7.3.2.2, 7.3.3.2, 7.3.3.3, 7.4.1, 8.3.1.1, 9.2.1, 9.2.2, Table 3)	H	W	R	R
5	**Release of product or service**				
5.1	Verification of conformance to purchase order				
5.1.1	Handling, packaging and preservation (IOGP S-718, 4.5)	H	S	-	-
5.1.2	Release of equipment (IOGP S-718, 4.5)	H	H	H	W

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	PURCHASER ASSESSMENT ACTIVITIES *(continued)*	CAS			
		A	B	C	D

Key
H: Hold point
W: Witness point
R: Review
S: Surveillance

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Annex B
(normative)
Certification and traceability requirements

Item		Certificate type	Traceability level	Additional requirements
Basic process measurement instruments	Pressure-containing parts	3.1	Level II	
	Pressure-containing parts exposed to sour service	3.1	Level II	Consider more onerous inspection to level 3.2 depending on CAS level.
	Pressure-retaining parts (e.g. bolting, polymeric seals)	2.2	Level III	

NOTE 1 Certificates
Inspection certificates shall be provided in accordance with ISO 10474 or EN 10204.

NOTE 2 Traceability
A. Level I — Full traceability — Material is uniquely identified and its history tracked from manufacture through stockists (where applicable) to the supplier and to actual position on the equipment with specific location defined on a material placement record (the traceability to a specific location only applies to skids / packaged equipment, not to bulks).
B. Level II — Type traceability — The supplier maintains a system to identify material throughout manufacture, with traceability to a material certificate.
C. Level III — Compliance traceability — The supplier maintains a system of traceability that enables a declaration of compliance to be issued by the supplier.

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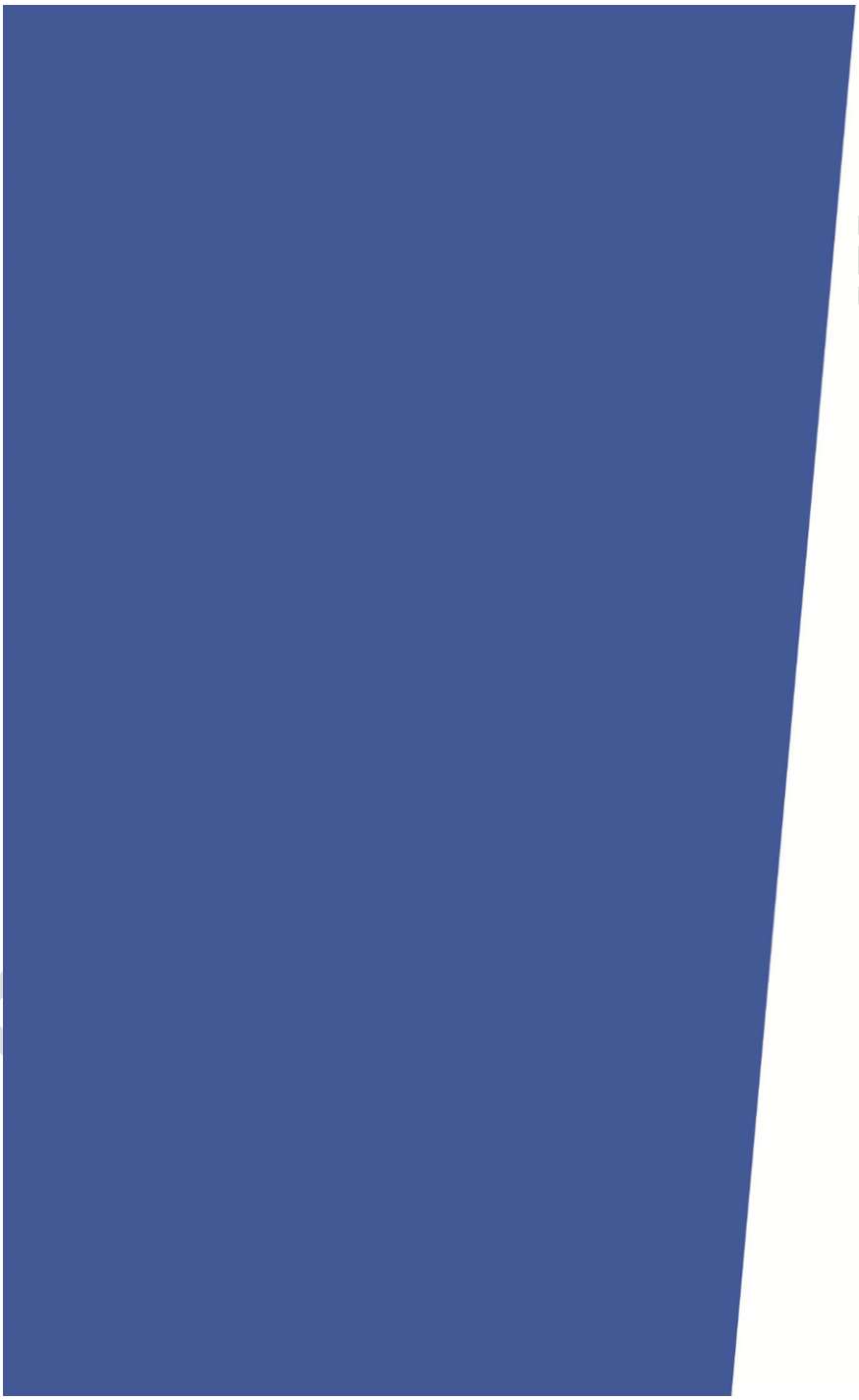

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