PD IEC/TR 61832:2015

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Design and installation of on-line analyser systems — Guide to technical enquiry and bid evaluation

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The UK participation in its preparation was entrusted by Technical Committee GEL/65, Measurement and control, to Subcommittee GEL/65/2, Elements of systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Design and installation of on-line analyser systems – Guide to technical enquiry and bid evaluation

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CONTENTS

FOREWORD 4
1 Scope 6
2 Normative references 6
3 Preliminary details 6
3.1 Brief project description 6
3.2 Type of response expected from the vendor 7
3.3 Critical criteria on bid rejection 7
4 Scope of supply 7
4.1 General 7
4.2 Vendor/client interfaces 7
4.3 Procurement responsibilities 7
4.4 Standards and codes of practice 8
4.5 Documentation requirements 8
4.5.1 Quotation stage 8
4.5.2 Project stage 8
4.5.3 Project completion 9
4.6 General specification 9
4.6.1 Environment 9
4.6.2 Hazardous area classification 9
4.6.3 Equipment certification 9
4.6.4 Utility systems 10
4.6.5 Labelling 10
4.7 Analyser house specification 10
4.7.1 Overall layout, size constraints and location 10
4.7.2 Construction 11
4.7.3 Ventilation 11
4.7.4 Air conditioning 11
4.7.5 Power distribution 12
4.7.6 Safety systems 12
4.7.7 Monitoring and alarm systems 12
4.7.8 Signal Interfacing with control systems 13
4.8 Sample system specifications 13
4.8.1 Sample probe design and location 13
4.8.2 Sample conditioning 13
4.8.3 Sample transport 14
4.8.4 Safety (pressure and temperature considerations) 14
4.8.5 Analyser validation 14
4.9 Analyser specification 14
4.9.1 Description, tag numbers and control 14
4.9.2 Systems vendor responsibilities 14
4.9.3 Data sheets 14
4.9.4 Analyser certification 15
4.9.5 Analyser performance requirements 15
4.9.6 Materials of construction 15
4.9.7 Signal interface requirements 15
4.10 Inspection and testing 16

Documents
Document Sharing Hub
Full document details: PD IEC/TR 61832:2015

4.10.1 Analysers at analyser vendor's works 15
4.10.2 Analysers and systems at systems vendor’s works 16
4.10.3 Commissioning and site acceptance tests 17
4.11 Training requirements 17
4.12 Spare parts requirements 17
5 Bid technical evaluation 17
5.1 Object 17
5.2 Correct response to the bid 18
5.3 Technical excellence 18
5.4 Comparative testing 18
5.4.1 Allowance for technical interpretation 18
5.4.2 Assigning key areas 18
5.4.3 Weighting functions 19
5.5 Bid qualification meetings 20
5.6 Reassessment of comparative testing 20
6 Sample analyser specification template 22

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Document Sharing Hub
Full document details: PD IEC/TR 61832:2015

INTERNATIONAL ELECTROTECHNICAL COMMISSION

DESIGN AND INSTALLATION OF ON-LINE ANALYSER SYSTEMS – GUIDE TO TECHNICAL ENQUIRY AND BID EVALUATION

FOREWORD

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IEC Technical report IEC 61832 has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

EEMUA Publication 226 "Design and Installation of On-Line Analyser Systems; A Guide to Technical Enquiry and Bid Evaluation"[1] has served as a basis for the elaboration of this technical report.

This second edition cancels and replaces the first edition published in 1999. This edition constitutes a technical revision.

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This edition includes the following significant technical changes with respect to the previous edition:

a) Foreword: Foreword amended to indicate that this document covers the general principles but specific requirements must be developed for each project;

b) Clause 1: Clarifications added to requirements for documentation and drawings required with bids;

c) Clause 2: Further information added on technical information required with bids. Additional clauses added to specify training and spares information required with bids. Technical additions and clarifications made throughout to specific sub-clauses detailing technical information required with bids;

d) Clause 3: Additional information and items added on key areas that need to be included in technical bid evaluations. Additional weighting factor added for engineering services;

e) Annex A: Sample Analyser Specification Template replaced by a more comprehensive and detailed example.

This technical report is to be used in conjunction with IEC TR 61831, *On-line analyser systems – Guide to design and installation*.

The text of this standard is based on the following documents:

Enquiry draft	Report on voting
65B/960/DTR	65B/976/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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DESIGN AND INSTALLATION OF ON-LINE ANALYSER SYSTEMS – GUIDE TO TECHNICAL ENQUIRY AND BID EVALUATION

1 Scope

This technical report is intended as a guide to assist in the development of a specification or material requisition for analysers and their associated support systems. It is intended to be used for enquiry purposes and the subsequent assessment of the bids presented by the prospective vendors. The intention is to cover the general principles and items that need to be addressed when purchasing large analyser systems.

This technical report is not intended as a design specification in its own right and design guidance has been deliberately omitted. It is to be read in conjunction with IEC TR 61831, *On-line analyser systems – Guide to design and installation*, which provides further guidance on specific design details which need to be included in the specification or material requisition used for the purchase of analysers and associated systems.

To simplify the specification and bid process it is desirable to have a standard format for both the enquiry documentation and the response from the analyser vendor. This technical report is intended to provide that framework.

Clause 4, 'Scope of supply' lays out the headings and any relevant associated comments for the specification of a complete analyser system. Analyser systems are not all the same and individual requirements for total content will invariably differ. However this technical report is laid out such that individual clauses can be selected or omitted as required. The recommended approach is to include all clause headings and where relevant state as "Not Applicable".

Clause 5, 'Bid technical evaluation' covers procedures for bid assessment and gives suggested points against which bids should be analysed.

2 Normative references

IEC TR 61831:2011, *On-line analyser systems – Guide to design and installation*

3 Preliminary details

3.1 Brief project description

The specification document should contain a brief description of the project associated with the analyser installations including site location, type and number of analyser houses, tag numbers for the proposed houses and analysers, and the major obligations expected of the systems vendor, e.g. design work, manufacture, procurement, testing, transportation to site, commissioning and training.

The analyser and installation may be supplied by the same or separate vendors. The normal preference is for the analyser vendor to also supply the sample conditioning system and housing of the installation as this gives a single point of responsibility. If several analysers are being installed at the same time, the complete installation can be supplied by a specialised analyser systems sub-contractor. See IEC TR 61831, *On-line analyser systems – Guide to design and installation*, for further information on analyser installation design.

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3.2 Type of response expected from the vendor

The type of response required of the vendor should be clearly stated, e.g. answer all sections on an individual basis, highlight deviations from the specification with technical reasons for non-compliance and the alternatives proposed.

It should be made clear that any drawings and data presented with the bid should be relevant to that bid. Standard drawings are only acceptable if applicable for the specific application. Typical drawings or examples from other projects are generally unacceptable.

The language in which the bid is to be submitted should be specified.

3.3 Critical criteria on bid rejection

Consistency of response from all vendors is necessary to provide a fair basis for technical comparison of bids.

It should be made clear to the vendor that non-compliance with the requested response format may lead to automatic rejection of the bid.

A high degree of importance should be placed on technical competence in sample system design as this is the area whereby the analyser systems will most likely fail. Typical drawings or examples of past similar applications are generally not sufficient to determine the competence and quality of design being offered for the specific project.

Design for ease of maintenance should also be emphasised as an important aspect in assessing the bids.

4 Scope of supply

4.1 General

This clause covers typical items and technical requirements that should be included in the enquiry document with examples to emphasise the types of clause that should appear and the associated technical and scope considerations. It does not necessarily include the complete set of clauses or technical requirements that may be required for all projects. These need to be developed on a specific project basis.

The final bid enquiry document should contain an itemised list or table identifying all the major hardware assemblies (with tag numbers and quantities as appropriate) and the engineering services (inspection, testing, site acceptance, documentation, training, etc.) that are included within the vendor's scope. This may also be used as the basis for a commercial breakdown of the costs.

4.2 Vendor/client interfaces

Interface points should be clearly defined in terms of site work tie-ins.

Where testing of the analyser installation is required it should be made clear who is responsible for providing any necessary test equipment and test gases/liquids.

The Vendor should make due allowances within the bid for inspection and quality assurance checks by the client/purchaser.

4.3 Procurement responsibilities

It should be made clear whether the systems vendor is to buy in the analysers or if the client will ‘free issue’ them to the vendor for installation.

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