

NATIONAL STANDARD
OF THE PEOPLE'S REPUBLIC OF CHINA

中华人民共和国国家标准

Code for Erection and Acceptance of
Automation Instrumentation Engineering

自动化仪表工程施工及验收规范

GB 50093-2002

Chief Editorial Department: Association of Petroleum and Chemical Industry of China

Approved Department: Ministry of Construction of PRC, China

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NOTICE

This code is written in Chinese and English. The Chinese text shall be taken as the ruling one in the event of any inconsistency between the Chinese text and the English text.

**Notice from the Ministry of Construction of People's
Republic of China**

No. 99

**Notice from the Ministry of Construction for publishing
the Code for Erection and Acceptance of Automation
Instrumentation Engineering**

Hereby the Code for Erection and Acceptance of Automation Instrumentation Engineering is ratified as a national standard, the number is GB 50093-2002, and it will be implemented from March 1st, 2003 on. For it, articles 1.0.3, 4.1.3, 4.5.6, 5.2.11, 5.5.1(3)(4), 5.5.2, 6.1.7, 6.1.15, 6.1.17, 7.1.3, 7.2.4, 7.6.5, 8.1.1, 8.1.4, 8.1.5, 8.1.6, 8.1.7, 8.1.9, 8.1.10, 8.1.11, 8.2.5, 8.3.1, 9.1.2, 9.1.6(12), 9.1.7, 9.1.8(2)(4), 9.1.9, 9.1.11, 9.2.1, 10.1.2, 11.1.5, 11.1.10 are mandatory documents, and shall be executed strictly. The former Code for Erection and Acceptance of Industrial Automation Instrumentation Engineering GBJ 93-86 is abolished at the same time.

The Research Institute for Quota of Standards under the Ministry of Construction is to organize the Planning Publishing House of China to publish and issue this Code.

**Ministry of Construction of People's Republic of China
Jan. 10th, 2003**

Preface

This Code is revised, according to Construction Standard No. [1997] 108 document from the Ministry of Construction—the “Notification for Printing and Publishing the Plan for Making up and Revising the National Standard for Engineering Construction in 1997”, by the former Ministry of Chemical Industry, which acts as the editing department, jointly with concerned departments of the Ministry of Metallurgy, Machinery, and SinoPec, etc., based on the former national standard, the Code for Erection and Acceptance of Industrial Automation Instrumentation Engineering GBJ 93-86. This Code includes 12 chapters as General, Terminology, Erection Preparation, Installation of Energy Components, Installation of Instrumentation equipment, Installation of Instrumentation lines, Installation of Instrumentation Piping, Degreasing, Electric Anti-explosion and Earthing, Protection, Test on Instruments and Acceptance of Engineering, etc.

In the name of the new Code, the “industrial automation instrumentation engineering” is changed to be “automation instrumentation engineering”, this has enlarged the applicable scope. It is newly added two chapters as the terminology, and erection preparation, and four sections as mechanical measuring & inspecting instrument, other inspecting instrument, control instrument and comprehensive control system, test of comprehensive control system, etc. Some chapters of the former Code are adjusted.

During the revision, the revising team for the Code has made wide investigation and study, and has summarized the practical experiences in erection of automation instrumentation works (engineering) of China, meanwhile, it has referred to a lot of documentations and engineering technical materials about automation instrumentation engineerings both from home and abroad, as well as the revisions for concerned national standards relative with instrumentation products, pipe erection, electric erection and electric anti-explosion, and asked widely opinions from concerned organization units all over China for engineering erection, engineering design, production of petrochemical products, manufacturing of instrumentation devices and materials, quality supervision & inspection from such sectors as chemical industry, petrochemical industry, metallurgy, machinery and electricity, etc. The revising team fixed the draft after sorting out, discussing and reviewing the opinions collected.

When executing the Code, the organization units concerned would better summarize carefully the experiences and accumulate technical materials in conjunction with engineering practice. If any points which shall be modified and complemented were found, please send the opinions and concerned technical materials to the Secretary Department of the Commission of Chemical Industry Engineering under the Standardization Association for Engineering Construction of China (Address: No.16 Building, Block IV, An-Hui-Li, Ya-Yun-Cun, Beijing, Postal code: 100723, phone: 84885096) for reference in revision in future. The National Standardization Management Center of Construction for Chemical Industry (phone (fax): 0311-5886241) will be responsible for explaining the Code.

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Units participating in the editing: No.4 Construction Company of Chemical Engineering of China

No.10 Construction Company of Sinopec Group

No.22 Metallurgy Construction Company of China

No.9 Construction Company for Chemical Engineering of China

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1 General

1.0.1 This Code is worked out for improving the erection technology and management level, guaranteeing the quality of automation instrumentation (hereinafter short as instrumentation) engineering.

1.0.2 This Code is applicable for the erection and acceptance of the industrial and civil instrumentation engineering.

This Code is not applicable for the installation works for instruments used at such places as manufacturing, storing and where using explosive materials as well as installation works for traffic tools, in-the-pit and meteorological instruments, etc.

1.0.3 The erection of an instrumentation engineering shall meet the design document and this Code, and shall meet the Installation & Operation Instructions of the product concerned. Any modification to the design shall be confirmed by the original designing unit.

1.0.4 The instrumentations and instrumentation taps directly mounted on the equipment and piping shall be erected according to the bordering for specialties in the design document.

1.0.5 The devices and materials adopted in the instrumentation engineering shall meet current national mandatory standard concerned.

1.0.6 The welding of instrumentation engineering shall meet current national standard, the Code for Erection and Acceptance of On-site Welding Works for Equipment and Industrial Piping, GB 50236-98.

1.0.7 In addition to this Code, the erection for the instrumentation engineering shall also meet current national mandatory standard concerned.



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