



**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

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**Code for installation of intelligent building systems**

智能建筑工程施工规范

**(English Translation)**

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### **1.0.1 This code is formulated with a view to strengthening the management of the installation**

of intelligent building systems, guaranteeing the installation quality of intelligent building systems, and achieving advanced technology, reliable process, economy and rationality and efficient management.

1.0.2 This code is applicable to the installation of intelligent building systems in construction, renovation and extension engineering.

1.0.3 This code shall be used in supporting with the current national standards "Standard for Design of Intelligent Building" (GB/T 50314), "Unified Standard for Constructional Quality Acceptance of Building Engineering" (GB 50300), "Code for Acceptance of Quality

of Intelligent Building Systems" (GB 50339), "The code of Construction Project Management " (GB/T 50326), "Evaluating standard for excellent quality of building engineering" (GB/T

50375), "Code of Acceptance of Construction Quality of Electrical Installation in Building" (GB 50303) and "Technical Code for Safety of Temporary Electrification on Construction Site" (JGJ 46).

1.0.4 The installation of intelligent building systems shall not only comply with the requirements stipulated in this code, but also comply with those in the current relevant ones of China.

### **2.0.1 Deepening design**

The process to refine the construction scheme on the basis of scheme design and technical design and also to plot the construction drawing.

### **2.0.2 Comprehensive pipeline**

The basic platform of the building intelligent system, which is the basic channel of the construction and normal function exertion of its subsystems and also is the public pipeline for the subsystems of building intelligent system to provide the demand.

### **2.0.3 Hybrid fiber coaxial**

The access network which takes optical fiber as the main line and coaxial cable as the distribution network.

### **2.0.4 Public address system**

An organic entirety formed by all the broadcasting equipment and facilities serving for public places and the acoustical environment of the public coverage areas.

### **2.0.5 Net control unit**

The device that is used for the communication between the server/workstation and the field control unit to complete the function transformation between the field control network and the IP network.

### **3.1.1 Before installation of intelligent building systems, deepening design shall be carried out**

on the basis of schematic design and technical design, and the construction drawing shall be plotted.

3.2.3 The construction quality management shall meet the following requirements.

### **3.3 Construction Preparation**

#### **3.3.5**

The construction preparation for all the systems included in this code shall meet those specified in Section 3.3 of this code.

#### **3.4.1 Inspection and appearance quality acceptance shall be conducted over the installation**

quality of engineering equipment according to such engineering design documents as construction drawing by adopting such methods as on-site observation and random inspection and test. The inspection lots shall be divided according to those specified in Article 4.0.5 and Article 5.0.5 of the current national standard "Unified Standard for Constructional Quality Acceptance of Building Engineering" (GB 50300-2001). The quality acceptance records shall be filled in according to the corresponding requirements in appendixes when inspecting and shall also be kept properly.

### **4.1 General Requirements**

#### **4.1.1**

The power wire cable and signal wire cable must not be laid in one wire pipe.

#### **4.1.2**

The construction of the wire cables of generic cabling system shall meet those specified in Chapter 5 of this code.

### **4.3 Pipeline Installation**

#### **4.3.1**

Bridge installation shall meet the following requirements.

### **4.4 Wire Cable Laying**

#### **4.4.1**

The wire cable shall be provided with permanent labels for waterproofing and friction resistance at both ends, and the characters on the labels shall be distinct and accurate.

#### **4.4.2**

Wire cables in a pipe shall not be twisted or buckled and shall be without joints.

#### **4.4.3**

The minimum allowable bending radius of wire cable shall meet those specified in Table 12.2.1-1 of the current national standard "Code of Acceptance of Construction Quality of

Electrical Installation in Building" (GB 50303-2002).

#### **4.6 Self-examination and Test**

##### **4.6.1**

The bridge and wire pipe shall be inspected for their specification, position, bending and flattening degree, bending radius, connection, bridge ground wire, corrosion protection, pipe box fixation, pipe orifice treatment, protective layer and welding quality, etc. The bent pipe and connection accessories shall be of uniform radian and shall be free from such defects as folding, depression, crack, bending or flattening and dead turn, and the welds of pipe shall be at the outer side.

##### **4.6.2**

According to the requirements of deepening design documents, the specification, type, labeling and laying quality of wire cable shall be inspected.

#### **5.1 Construction Preparation**

##### **5.1.1**

The preparation of materials and equipment used in engineering shall meet the following requirements.

#### **5.2 Wire Cable Laying and Equipment Installation**

##### **5.2.1**

In addition to complying with those specified in Section 4.4 of this code, the laying of wire cables shall also meet the following requirements.

##### **5.2.2**

The installation elevation of information outlet shall meet the design requirements, the horizontal distance between this outlet and the installed power socket shall be in accordance with those specified in Article 5.1.1 of the national standard "Code for Engineering Acceptance of Generic Cabling System" (GB 50312-2007). Where there is no requirement in the design, installation elevation of information outlet shall be equal to that of the power socket.

##### **5.2.3**

Wire cables in cabinet shall be banded on the cable management arms on both sides of the cabinet and shall be arranged neatly and beautifully, the distribution frame shall be installed firmly, and the information point labeling shall be accurate.