

ICS 25.040.40; 35.240.50
CCS N 18



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

GB/T 15969.1-2007

Replacing GB/T 15969.1-1995

Programmable controllers -- Part 1: General information

可编程序控制器 第1部分：通用信息

(English Translation)

Issued on: October 11, 2007

Implemented on: December 1, 2007

Issued by: Standardization Administration of China

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The basic functional structure of a programmable controller system of FIG.

Typical interface/port Programmable Controller System Figure 3 Figure

Foreword

GB/T 15969 "Programmable Controller" is divided into eight sections.

--- Part 1. General information;

--- Part 2. device characteristics;

--- Part 3. Programming languages;

--- Part 4. user guidelines;

--- Part 5. Communications;

--- Part 6 .(undecided);

--- Part 7. Fuzzy control programming (GB/T 17165.3);

--- Part 8. Programming language application and implementation guidance.

This section identical with IEC 61131-1:2003 "Programmable controllers - Part 1. General

Information" (second edition).

This Part replaces GB/T 15969.1-1995.

This part with other part GB/T 15969 redefine and confirm the selection with the programmable controller and its peripheral devices the main features and applications related to constitute a technical revision.

This part is proposed by China Machinery Industry Federation.

This part of the measurement and control of Standardization Technical Committee Programmable Controller and System Technical Committee (SAC/by the National Industrial Process TC124/SC5) centralized.

This part of the China Association for Mechatronics Technology responsible for drafting.

Introduction

This section GB/T 15969 is a programmable controller and its associated peripherals series of standards - Part 1. Read this section it should be combined with other parts of the series of standards.

When this section conflicts with other IEC standards (except basic safety standards), should in terms of this standard as a programmable logic controller System and its associated peripheral equipment in the field of guidance documents.

GB/T 15969 is intended.

Part 1 establish definitions and main characteristics and confirm the selection and application of programmable logic controller and related peripheral equipment;

Part 2 devices require programmable logic controller (PLC) and its peripherals and related test;

Section 3 defines the primary applications, syntax and semantic rules for each of the most commonly used programming language, simple and complete programming elements the basic set of tests and can be a means by which the manufacturer can expand or adopt these basic set for their own programmable Controllers;

Section 4 provides GB/T 15969 General Comprehensive information and application guidelines for the PLC end-users;

Section 5 defines the communication with other electronic programmable logic controller between systems;

Part 6 Reserved;

Part 7 for the definition of fuzzy control programming language;

Section 8 provides in Section 3 as defined in the programming language of the application

and implementation of the guidelines.

GB/T 15969.1-2007/IEC 61131-1:2003 Programmable controllers - Part 1. General Information

1 Scope

This section GB/T 15969 applies to the programmable logic controller (PLC) and their associated peripherals, such as programming and debugging tools (PADT), human-machine interface (HMI), etc., which have (according to their intended use requirements) machinery and industrial process control and command.

PLC and related peripheral equipment will be used in industrial environments, they can be used as an open or closed system means available. If you want to PLC and related peripherals used in other environments, you must make those specific requirements for other environmental standards and is also suitable for installation practices for PLC and related peripherals.

Programmable Logic Controller implementation and calculation on special hardware and software platforms in general purpose industrial-environmental characteristics of the realization of a personal computer or can achieve the same satisfactory results. This section applies to the execution of the PLC and/or its associated peripheral functions can any product. This section does not involve the overall functional safety automation system or otherwise. Programmable Logic Controller (PLC), which should Applications and their associated peripherals are treated as part of a control system view.

Since the PLC is a piece of equipment, so the overall automation system (including installation and application) does not belong to security concerns the scope of this section. but Including electric shocks and fire-related PLC system operation, electrical noise immunity and error detection PLC safety (for example, parity, self-test Diagnostic test, etc.). See IEC 60364, or may be national/regional electrical installation specifications and guidelines.

This section GB/T 15969 gives definitions of terms GB/T 15969 in use. It defines Programmable Controller System the main features.

2 Normative references

The following documents contain provisions which, through reference GB/T 15969 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 15969.2 Programmable Controllers Part 2. Equipment properties (GB/T 15969.2-1995, eqv IEC 61131-2.

1988)

Part of GB/T 15969.3-2005 programmable controller 3. Programming Languages

3 Terms and Definitions

This section uses the following terms and definitions.

With PLC control system or a mechanical process, all the logic programming language elements and structures necessary for the desired signal processing set.

Outside of the control system GB/T 15969 range in the automation system PLC system to coordinate work by the user, or the user and the Association Adjusting work, but the automated system also includes other components, including its applications, including.

Provide input and/or output interface to the programmable logic controller systems, or to provide part of the data preprocessing/post processing. Remotely GB/T 15969.1-2007/IEC 61131-1:2003