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LN 2000 Distributed Control System (DCS)

Manufacturer: Shandong Luneng Control Engineering Co., Ltd.

Overview

The LN 2000 is a distributed control system (DCS) developed by Shandong Luneng Control Engineering, designed for process control and automation in various industrial applications. It is recognized for its modular architecture, fieldbus support, and adaptability to both small and large-scale operations[1] [2].

Key Features

- **Modular Design:**
  Enables flexible configurations, easy system expansion, and reduced maintenance costs.
- **Fieldbus-Based:**
  Supports contemporary fieldbus standards for real-time, reliable industrial communication[2].
- **Distributed Architecture:**
  Ensures decentralization of control tasks, promoting higher system reliability and fault tolerance.
- **Scalability:**
  Suitable for a wide range of plant sizes, from individual equipment to large-scale, complex processes[2].
- **Integration:**
  Easily integrates with third-party devices and plant information management systems.

Technical Specifications

Feature	Details
Main System Type	Distributed Process Control System (DCS)
Communication Platform	Fieldbus technology, modular bus structure
Control Modules	Supports multiple control and I/O modules for analog, digital, pulse, and communication signals
Expansion Capability	High, system can be extended with additional modules as plant requirements grow
Redundancy	Supports controller, network, and power supply redundancy to ensure continuous operation
Operator Interface	Human-Machine Interface (HMI) for visualization, operation, and monitoring

Feature	Details
Data Handling	Real-time data acquisition, process history logging, and alarms
Engineering Tools	Integrated configuration, programming, and diagnostic tools
Application Areas	Power plants, petrochemical, metallurgy, paper-making, water treatment, and other industrial automation environments

Application Example

LN 2000 systems are used in multiple sectors including power generation, where they serve as the core automation platform for plant operation, monitoring, and safety interlocks[2].

Advantages

- **High Reliability:**
  Redundant design for controllers, networks, and power supplies prevents unexpected downtime.
- **Ease of Maintenance:**
  Modular hot-swappable units simplify repairs and expansions.
- **Advanced Control Functions:**
  Supports complex control algorithms and integrates with various instrumentation and communication protocols.

Additional Resources

- For in-depth technical details, visit the official website of Shandong Luneng Control Engineering Co., Ltd. or consult third-party automation system suppliers that carry LN 2000 documentation.

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1. https://en.eeworld.com.cn/download/detail/电子爱好者lK/204854
2. https://paya-trade.com/ln-control-system/ln2000-dcs/