Fuji Integrated Controllers MICREX-SX Series
High-reliability redundant systems

Distributed control system (DCS) class high-reliability control and remote maintenance from controller to I/O by means of programmable logic controllers (PLC)

The SPH5000H high reliability duplex system is an addition to the MICREX-SPH Series of Fuji Integrated Controllers. Flexible system configuration is possible by combining the extensive modules of the MICREX-SPH controller.

**Benefits**
- **High reliability**: stable system operation
- **Development and applicability**: Wide range of applications from factory automation to process automation and information control
- **High maintainability**: Easy collection of information in the event of an abnormality

**System features**

**High reliability**
- Duplex CPUs
  - High-performance duplex configuration using 1 Gbps equalization buses
  - High reliability using error-correcting code (ECC) functions for the CPU memory
- Duplex networks
  - High-speed communication using 1 Gbps FL-net
  - High performance using CPUs with built-in networks
- Duplex I/O networks
  - High-speed I/O refresh using E-SX buses
  - Robust I/O networks with loop support

**Development and applicability**
- Large scale I/O
  - E-SX bus supports up to 65,536 points
- E-SX bus
  - Ideal bus for high-speed processing, distributed arrangement, and high-speed synchronous systems

**High maintainability**
- Non-volatile memory for reliability, availability and serviceability (RAS) of the CPUs

Configuration example using MICREX-SX SPH5000H
【Functional overview】

- **SPH5000H duplex controller system**
  MICREX-SX SPH CPU module supports duplex CPUs, duplex networks, and duplex I/O networks.

- **MICREX-SX SPH Series peripheral modules**
  Peripheral modules can be used together with the SPH5000H duplex controller system. Extensive I/O, communication, power supply, CPU, and base board modules are available. For details, refer to SPH General Catalog 22B2-J-0004.

- **Program support tool: SX-Programmer Expert**
  CThe program development environment conforms to the IEC61131-3 international standard for PLC languages. Highly efficient SPH5000H engineering can be performed.

【Introduction examples】

Ideal for systems that require 24-hour operation and cannot be stopped.

Airport baggage systems

Water treatment systems

【System engineering example】

Program support tool: SX-Programmer Expert

Windows PC

- IEC61131-3 compliant
- Language and mixed description based on control application
- Use of function blocks for improved program reusability

Common processing, common function blocks (Function blocks)

Application

Application

Application