Siemens 6DD1610-0AG1 Digital Input Module - Datasheet

General Information:
Part Number: 6DD1610-0AG1
Product Family: SIMADYN D
Product Type: Digital Input Module
Manufacturer: Siemens
Technical Specifications:
Input Features:

Input Voltage: 24 V DC nominal
Input Type: Digital (Binary)
Number of Inputs: 16 digital inputs
Input Signal Range:
Low: 0 – 5 V (off)
High: 15 – 30 V (on)
Input Signal Type: Potential-free contacts, 24V DC logic signals
Input Response Time: <1 ms
Input Current: Approx. 7 mA per channel at 24 V DC
Power Specifications:

Supply Voltage: 24 V DC
Power Consumption: Low (varies based on usage)
Isolation and Protection:

Galvanic Isolation: Isolation between inputs and control electronics
Overvoltage Protection: Yes, for each input
Short-circuit Protection: Yes, with individual channel protection
Environmental Specifications:

Operating Temperature: 0° C to +55° C
Storage Temperature: -40° C to +70° C
Humidity: 5% to 95% (non-condensing)
Vibration Resistance: Suitable for industrial environments
EMC Compliance: Fully compliant with industrial standards for electromagnetic compatibility
Physical Characteristics:

Mounting: DIN Rail mounting
Dimensions: Standard SIMADYN D module size
Weight: Approx. 0.3 kg
Connectors: Removable terminal blocks for input connections
Features:
16 Digital Input Channels: Each channel can receive binary signals for control systems.
High-Speed Processing: Designed for fast signal acquisition and processing, ideal for real-time

applications.
Modular System: Compatible with other SIMADYN D series modules.
Robust Design: Industrial-grade components ensure long service life in harsh environments.
Diagnostics LEDs: LEDs for indicating the status of inputs for easy troubleshooting.
Certifications:
CE Marked: Complies with EU safety, health, and environmental requirements.
UL Certification: Approved for use in North America (where applicable).

Applications:
Industrial Automation: Ideal for controlling and monitoring industrial machines and processes.
Process Control: Used in sectors like oil & gas, chemical processing, power generation, and more.
Factory Automation: Ensures real-time data acquisition from sensors and switches.
Energy Management: Plays a key role in power generation and distribution control systems.

This digital input module is a vital part of the Siemens SIMADYN D automation system, used in complex control environments requiring high reliability, fast response times, and precise control over digital inputs.