DATA LOGGER

AI GS-01-2000-PRO

REAL-TIME DATA CAPTURE

CE IP 67

GSoc DATA LOGGER AI GS01-2000-PRO

Advanced Environmental Measurements

GSoc AI GS01-2000-PRO Datalogger is a professional device, ideal for advanced environmental measurements. With the ability to connect a wide range of sensors and support for the latest data transmission technologies, such as GSM, LoRaWAN, and MQTT, it provides reliable and continuous monitoring of atmospheric, hydrological, and air quality conditions. With 16 GB of built-in memory (expandable to 128 GB) and a data buffering function, it guarantees security and full measurement availability, even in the most challenging field conditions. This is a modern solution for professionals who value precision and reliability.

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TECHNICAL PARAMETERS

Input/output channels	The data logger supports up to 10 RS485 interfaces, enabling integration with a wide range of devices and sensors communicating via the Modbus RTU standard. Supported signal and sensor types (using appropriate converters or adapters): – Current inputs: 0–25 mA – Voltage inputs: e.g., 0–5 V – Pulse inputs – RTD sensors (Pt100 / Pt1000) – 3- or 4-wire – SDI-12 – via SDI-12 → RS485 adapter
Dimensions	Length: 20.5 cm / Width: 12.5 cm / Height: 5 cm
Number of connected sensors	Possibility to connect up to 200 devices with unique addresses
Memory	– 16 GB non-volatile memory on SD memory card (memory expansion possible) – Configurable up to 1600 measured values – Minimum 1,000,000 samples that fit in memory – Data buffering in datalogger disk storage resources in case of lack of internet connection to server
Sampling	Sampling: frequency from 10 seconds to 24 hours Continuous pulse measurement Control of data recording on individual sensors
Power supply	– PoE (Power over Ethernet) – Integrated 48 Wh lithium-ion battery – Input voltage 6-24V for charging system – Output voltages 5V and 12 V up to 200 mA for powering sensors – Possibility of powering from 230 V mains using an external power supply – Possibility of powering from 9V or 12V photovoltaic panels (12 V recommended) for 24/7 operation in the field
Alarms and schedules	– Alarms: above, below or within range – Alarm actions: sending SMS messages, speeding up/slowing down sample/transmission, triggering/deactivating alarms depending on measurement results – Ability to add schedules for reading parameters from individual sensors
Transmission	GSM 2G/4G/5G modem Built-in TCP/IP protocol stack and MQTT Data transfer at specified intervals Remote data logger configuration via GPRS Automatic time synchronization with the base station time GSM (BTS) Local data transfer and configuration via USB or Bluetooth 4.1 LP (possibility of direct data download from datalogger) Possibility of connecting external LED displays
Data logger networking	Possibility of combining dataloggers into one system via LoRaWAN, GSM, LWM2M, Ethernet and NB-IoT. Expandable with a LoRaWAN Gateway module.
Dimensions and construction	Protection class: IP67 Material: ASA UL94HB, UV- and weather-resistant Color: White, similar to Munsell N8.75 Housing Dimensions: 180 × 100 × 60 mm or 180 × 100 × 80 mm (depending on configuration) (without connectors and antenna) Additional Ingress Protection Class: NEMA 6P (complete dust protection, protection against prolonged immersion in water and corrosion)
Real time clock	Real time clock with calendar
Automatic configuration download	YES
Monitoring of technical parameters and remote configuration of the station	– Monitoring of power supply voltage, modem operating time, cellular network signal strength – Generating and sending SMS and e-mail alarms (for technical parameters) – Possibility of remotely changing the frequency of measurements and data transmission – Automatic sending of outstanding data after the connection is restored
Operating temperature range	From -40°C to +85°C, without the need for additional heating