DATAWATT
AN OVARRO TECHNOLOGY

DSGSERIES

Scalable and intelligent remote telemetry unit for real-time monitoring, control, and communication

The DSG RTU is a powerful and scalable remote telemetry unit designed to provide real-time monitoring, control, and communication for industries such as water, energy, gas, and infrastructure. It enables seamless data collection and remote asset management, ensuring efficient and reliable operations.

The DSG features three insertion slots for a communication stick (Modem), CPU stick and I/O stick, along with four (4) serial ports, two (2) Ethernet ports and a CAN-based field bus. One serial port is dedicated to system setup. Running on a real-time, multi-user, multi-tasking OS (Operating System), the CPU stick includes 8MB Flash memory, 2MB non-volatile RAM, and 16MB dynamic RAM. The DSG operates as a standalone outstation with data acquisition, PLC functionality, remote monitoring, and control. It can connect to private networks via various communication sticks, including TCP/IP LAN. For expanded configurations, the DSG can be extended with up to eight (8) I/O modules via its own CAN bus, which connect seamlessly via a 1 Mbps I/O bus.
The DSG is programmable with Codesys 3.0 (IEC61131-3 (IL, LD, FBD, SFC, ST, CFC)

FEATURES & BENEFITS AT A GLANCE:

- **Supports:**
  IEC60870-5-104
  IEC 60870-5-103 Master,
  IEC61850 Slave
  Modbus Master (RTU/ASCII/TCP) via serial/IP
- **Expandable with 8x I/O modules for scalability. Extension with ECU again 8x I/O modules.**
  Maximum 14x ECUs
- **Remote configuration & firmware upgrades**
- **Built-in data logging & historical data retrieval**
- **Seamless SCADA & central system integration**
- **Designed for water, gas, power, energy, and industrial automation**
- **Embedded 24VDC no break functionality, with charger, using 2 x 12 VDC batteries, with alarms**
- **4 GB eMMC NAND Flash, 512 MB DDR3 RAM, SD card (insertable)**
- **Four serial ports, one two (2) Ethernet ports, and an own CAN-based field bus**

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THE DSG

Equipped with multiple communication options, including Ethernet, GSM, GPRS, PSTN, radio, and TCP/IP, the DSG RTU integrates effortlessly with SCADA and central control systems. It supports industry-standard protocols such as IEC 60870-5-103, IEC 60870-5-104, and Modbus, making it highly adaptable for various industrial applications.

Designed for flexibility, the DSG RTU allows for easy configuration, expansion, and firmware upgrades, ensuring long-term scalability. It continuously monitors asset status, detects sensor threshold breaches, and triggers automated alerts or control responses when needed. With built-in data logging capabilities, operators can retrieve and analyze historical data for better decision-making and long-term optimization.

By providing reliable remote monitoring and automation, the DSG RTU plays a critical role in improving operational efficiency, reducing downtime, and ensuring secure and intelligent management of industrial assets. Whether for water and gas utilities, renewable energy networks, or industrial automation, the DSG RTU delivers the reliability and performance needed to keep systems running smoothly.

TYPICAL APPLICATIONS

The DSG is an ideal RTU for monitoring and control applications, such as:

- Telemetry and telecontrol
- Data logger and event recorder
- M2M communication
- Industrial automation
- Control and monitoring
- Distribution automation (Power and Water)
- Remote fiscal metering
- Protocol conversions and gateway

CONFIGURATION AND USER INTERFACE

The RTU is delivered with a default setup that allows for quick deployment. Users can customize system settings, including port configurations, communication protocols, baud rates, and memory management.
Configuration files can be uploaded, modified, or exchanged, enabling easy updates when adding new I/O modules or extending functionality.
Firmware updates can be performed locally or remotely via a serial port or network connection.

The RTU includes an LCD display (2x16 characters) with a menu-driven interface. Six navigation buttons (cursor, enter, escape) allow for easy on-site configuration and monitoring. LED status indicators on the front panel provide real-time operational feedback. Configuration and status monitoring can also be managed by using System- / RTU Manager.

SUITABLE APPLICATIONS:

WATER
OIL & GAS
PROCESS INDUSTRY
POWER

CONTACT US:

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