VNS
V-Notch Weir System

Technical Specifications

Advanced design and technology plus years of expertise have produced the VNS V-Notch Weir System - a versatile, powerful – yet low power & cost effective system.

The VNS (V-Notch Weir System) is an industrial-grade, water flow volume system suitable for the harshest of environmental conditions.

The versatile, powerful, yet low power & cost effective system will ensure longevity for water flow volume monitoring.

- **» V-Notch Weir Water Flow Volume System**
- **» Low Cost Per Channel**
- **» Web & FTP client / server**
- **» Designed & Manufactured in Australia**
- **» 3 Year Warranty**

- Cost effective system capable of measuring water flow volume in dams, open channels such as streams and tunnels
- Standalone or part of a network with powerful inbuilt communication options, allows access to data how or where you want
- Capable of testing the integrity of level sensors
- Includes USB memory stick support
- Rugged design and construction provides reliable operation in the extremes of contrasting environments and applications
- Designed and manufactured in Australia to the highest quality standard.

Getting the Data

View the data in real time or store up to 10 million data points. Data storage and retrieval can be achieved via USB memory stick, FTP, Modbus for SCADA, Ethernet or Web. The web server allows browser access to data and files, FTP provides data to your office without the need for polling or specific host software.

Multiple Inputs, Ethernet & Power Connectors

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Technical Specifications

VNS Specifications

Sampling
Integrates over 50/60Hz line period for accuracy and noise rejection
Maximum sample speed: 25Hz
Effective resolution: 18 bits
Linearity: 0.01%
Common mode rejection: >90dB
Line series mode rejection: >35dB

Alarms
Condition: high, low, within range and outside range
Delay: optional time period for alarm response
Actions: set digital outputs, transmit message, execute any GMS commands.

Data Storage
Internal Store
Capacity: 128MB = approx 10,000,000 data points

Removable USB device (optional accessory)
Types: compatible with USB 1.1 or USB 2.0 drives, e.g. Flash drive.
Capacity: approx. 90,000 data points per MB.

Communication Interfaces
Ethernet Port
Interface:10BaseT (10Mbps)
Protocol:TCP/IP, Modbus (Master/Slave)

USB Port
Interface: USB 1.1 (virtual COM port)
Protocol: ASCII command

Network (TCP/IP) Services
Uses Ethernet and/or Host RS232 (PPP) ports

Command Interface
Access the ASCII command interface of the GMS via TCP/IP

Web Server
Access current data and status from any web browser.
Download data in CSV format.
Command interface window. Define mimic displays.

FTP Server
Access logged data from any FTP client or web browser

FTP Client
Automatically upload logged data direct to an FTP server

System
Display and Keypad
Type: LCD, 2 line by 16 characters, backlight.
Display Functions: channel data, alarms, system status.
Keypad: 6 keys for scrolling and function execution.
Status LEDs: 4 (sample, disk, attn, pwr)

Real Time Clock
Normal resolution: 200µs
Accuracy: ±1 min/year (0°C to 40°C), ±4 min/year (-40°C to 70°C)

Power Supply
External voltage range: 10 to 30Vdc
Internal battery: 6Vdc 4Ahr lead acid
Peak Power: 12W (12Vdc 1A)

Optional Telemetry

Radio Comms
LinkVUE RF Comms
900Mhz RF radio. Range up to 3km (mesh) and 14km (point-to-point)
MODBUS RS232 / RS485 comms interface

VNS Sensor Specifications

Service
Compatible liquids

Wetted Materials
316 SS, 316L SS, epoxy; Cable: Polyurethane or ETFE; Bullet nose: PVC.

Accuracy
± 0.25% FS*

Temperature Limit
PDS-SLT: 0 to 150°F (-18 to 66°C)

Compensated Temperature Range
PDS-SLT:0 to 140°F (-18 to 60°C)

Thermal Effect
± 0.02% FS/°F

Presure Limit
2X FS

Response TIme
50 ms.

Mounting Orientation
Suspended in tank level being measured

Electrical Protection
PDS-SLT: Lightning and surge protection

Weight
2.2 lb (1.0 kg)

Agency Approvals
PDS-SLT CE
Type: LCD, 2 line by 16 characters.

*Configured ranges below 5 psi (11.54 ft w.c.) (3.52 m w.c.) ±1% FS accuracy

**Up to 196 ft (59.5 m) for ETFE cable; Up to 333 ft (101.5 m) for polyurethane cable

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