DATA LOGGERS

FTS H2

ESPECIFICACIONES TÉCNICAS

AN aem BRAND

ESPECIFICACIONES TÉCNICAS

El registrador de datos H2 es ideal para aplicaciones hidrológicas o hidrometeorológicas simples a complejas donde la confiabilidad es primordial y/o la estación es muy remota.

El registrador de datos H2 es un registrador de datos resistente (DCP) diseñado para la recopilación remota de datos y aplicaciones complejas de sensores SDI-12. Cuenta con cuatro puertos SDI-12 independientes eléctricamente aislados, cada uno de los cuales puede manejar hasta 500 mA, y un regulador solar integrado.

CARACTERÍSTICAS

Technical Specifications	
Hardware	
Display/touchscreen:	• Graphical color touch screen display, 3.65" (diagonal), QVGA (320x240 pixels). • Display is transflective (readable in low light and outdoors in bright daylight) • Displays system status, configuration, stored data (graphical and tabular) and provides system configuration and troubleshooting diagnostics. • Displays voltage and current separately for battery and solar panel and battery temperature. • Supports troubleshooting, configuration and programming.
CPU:	• Two (2) CPUs total, both low-power RISC. • Main CPU is 200MHz 32-bit ARM.
Memory/storage:	• 64MB RAM • 256MB fixed physical, non-volatile flash memory for data and program storage. • Data is stored in a circular 10MB buffer (oldest data overwritten by newest when buffer full). • Based on NFDRS logging criteria, 7,575 days (about 20 years) of data can be stored.
Device ports:	• 2 waterproof USB 2.0 host ports, 1.5Mbps and 12 Mbps, support for flash memory and other USB-compliant devices. • 1 waterproof USB 2.0 12 Mbps device port with automatic PC detect. • Supports USB keyboard and mouse. • GOES RF output: N-type jack • GPS RF input: SMA jack
Sensor ports:	• Waterproof, color-coded, military-style connectors. • Dedicated ports (H2): – rain gauge (counter) • 4 Independent SDI-12 V1.3 ports able to communicate with a maximum of 62 digital sensors. • SDI ports each support up to 500mA and are electrically isolated.
Serial ports:	• 2 ports factory configured as internal GOES transmitter and one external, waterproof, military-style bayonet connector • **Signal levels:** RS232C • **Signals:** TXD, RXD, RTS, CTS, DCD, DTR, RI
Environmental sealing, size, weight:	• Waterproof to IP67, O-ring sealed, cast aluminum & stainless steel hardware, engineered resin bezel • **Dimensions:** 10" W x 8" H x 6" D • **Weight:** approx. 8 lbs.
Power supply:	• Internal, temperature compensated PWM charge regulator • Waterproof, military style bayonet connectors for solar panel and battery. • Sensing of battery voltage, battery current, battery temp, solar voltage and solar current. • 9.6VDC to 20VDC operating voltage.

CARACTERÍSTICAS

Software	
Station identification:	• The station's name, NESID and GOES data can be easily identified on the touchscreen display.
Programming:	• All programming done through intuitive graphical user interface (GUI) without writing code. • GUI accessed through integrated touchscreen. • Unlimited setup configurations are stored directly on the datalogger; different configurations can be selected or a new one created with the GUI.
Electronic service reports:	• All of the data recorded by field techs during a service call can be captured electronically in the Axiom and saved to a USB memory stick. • Data includes: – a list of sensor serial numbers before and after the service trip. – Audit log. – datalogger program version. – latitude, longitude, elevation.
Datalogger Performance verification:	• Graph sensor data and diagnostic parameters. • Battery load tests; view voltage before and after (requires dummy load on battery). • View current sensor readings. • View historical data. • View GPS performance stats. • View forward and reflected power stats to check GOES antenna performance.
One-touch current conditions:	• Users can customize the Current Conditions screen so that all sensors' real-time data are viewable with one button press, extremely handy when validating wind quadrants or simply validating each sensor as it is replaced.
Data transfer via USB memory stick:	• Data, Programs and Firmware updates can be transferred to and from datalogger via a conventional USB memory stick. • Historical data download is fast: approximately 5 seconds for 1 year of data including logger and telemetry records. • Data downloaded in universal .CSV (comma-separated values) format; importable into Excel and many other software.
GOES Transmitter	
Manufacturer:	• FTS
Supported baud rates:	• 100 bps • 300 bps • 1,200 bps
Operating supply voltage:	• 10.8 VDC to 16 VDC

CARACTERÍSTICAS

Environmental Protection	
Operational moisture range:	• 0-100% RH, condensing
Operational temperature range:	• G6 and Datalogger operation: -40°C to +60°C • Storage: -55°C to +70°C
Lightning protection:	• Three-stage protection circuit offers superior protection: **Stage 1:** transient earth clamp. **Stage 2:** series impedance. **Stage 3:** high speed shunt diode.
UV resistance:	• Excellent, as minimal plastics are used. Cable housing and omnidirectional GOES antenna are UV stable.
Electronics protection:	• Core electronics sealed from moisture and dust in waterproof housings, completely isolated from environment and user. • All non-telemetry data exchange (firmware upgrades, report downloads) performed through waterproof USB port. • Battery overcharge protection.
IP code rating:	• IP67
Power Consumption	
Datalogger current:	• **Idle:** 7-8mA (no integrated GOES transmitter), 7-8mA (with integrated GOES transmitter) • **Active (collecting data):** 12mA (with integrated GOES transmitter) • **Touchscreen backlight on:** 60mA • **GOES transmit:** 2.6A. • **GPS on:** <50mA
Power status:	• Datalogger measures and logs solar panel voltage, solar panel current, battery voltage, battery current and battery temperature. • Status indicators (always visible) allow techs to identify if the system is charging correctly or not. • This data is also part of the Current Conditions screen call and are captured in the electronic service report.