## DL-300 Series Data Loggers

**SPECIFICATIONS** #E126

## **Compact Design. Big Results.**

YSI's **DL-300 Series** are multi-purpose, compact, low-cost measurement and control data loggers. Designed to concentrate data, these entry-level data loggers make data available over varied networks and deliver the data using your preferred protocol. Its small size and low-cost

make it ideal for small applications requiring long-term monitoring and control.

The DL-310 is longer than the DL-300 and includes an integrated 10/100 Ethernet port and removable terminal connectors.

## But that's just the beginning of what the DL-300 Series has to offer:



**Save money** and space with the DL-310's integrated Ethernet port.



**Elimate wring headaches** through the DL-310's removable terminal blocks.



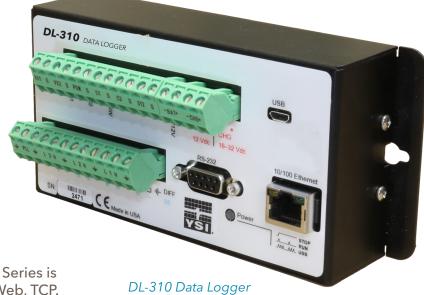
**Setup easily** with PC software, USB, and ethernet connectivity. The DL-300 Series is internet ready–Email, FTP, HTTP/Web, TCP.



**Ease your mind** with knowledge of the integral surge and ESD protection.



**Perform automated monitoring** of most hydrological, meteorological, environmental and industrial sensors, on-site or remotely for control and M2M communications.

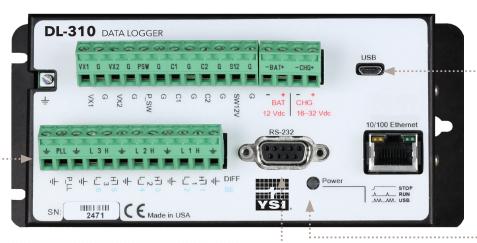




## **Additional Features:**

Configure up to six analog inputs while maintaining high accuracy and resolution

> Measure smart sensors using RS-232 or SDI-12 .....



Connect directly to PC with the USB micro B

Reference the power LED indicator flashes to quickly determine if a program ····· is running

General Specifications **CPU** ARM Cortex M4, running at 144 MHz **Internal Memory** 30 MB flash for data storage, 80 MB flash for CPU drive / programs, 2 MB flash for operating system **Clock Accuracy** ±1 min per month **USB micro B** for direct connection to PC (limited power source during configuration), 2.0 full speed, 12 Mbps RS-232 for connecting RS-232 modems or serial sensors Connection 10/100 Ethernet RJ45 for LAN connection (DL-310 only) Battery Battery Terminal Pair (-BAT+) for regulated 12 V power input or rechargeable 12 V VRLA for UPS mode Charge Terminal Pair (-CHG+) for 16 to 32 V from dc power converter or 12 or 24 V solar panel (10 W) Charge Power Consumption @ 1.5 mA (sleep), 5 mA (1 Hz scan with one analog measurement), 23 mA (active processor always on), 32 mA (CR310 Ethernet idle), 51 mA (CR310 Ethernet active) 12 Vdc One Switched 12 V Terminal (SW12V) for powering sensors or communication devices, 1100 mA@ 20°C; Output Two Sensor Excitation or Continuous 0.15 to 5 V Terminal (VX1, VX2) for sensor excitation or output control Analog Functions (SE1 - SE6) allow 6 single-ended or 3 differential inputs with -100 to +2500 mV and ±34 mV ranges 24 bit ADC; 4 to 20 mA or 0 to 20 mA inputs (SE1, SE2 only). **Analog Input Terminals** Digital I/O functions (SE1 - SE4) consist of 3.3 V logic levels for high frequency counter (35 kHz), pulse width modulation, interrupts and timer input and period average (200 kHz, amplitude dependent). P\_SW: Switch closure (150 Hz), High frequency counter (35 kHz) **Pulse Counting Terminals P\_LL:** Low level ac (20 kHz), High frequency counter (20 kHz) (C1, C2): C terminals are software configurable for digital functions. Digital I/O functions consist of 5 V output and 3.3 V input logic **Control Terminals** levels for: SDI-12, high frequency counter (3 kHz), switch closure (150 Hz), general status/control, voltage source 5 V: 10 mA @ 3.5 V, interrupts and serial asynchronous communication Tx/Rx pair.  $\pm$ (0.04% of reading  $\pm$ 6  $\mu$ V), 0° to 40°C **Analog Accuracy Effective Resolution**  $0.23 \,\mu\text{V}$  (±34 mV range, differential measurement, input reversal, 50/60 Hz f<sub>N1</sub>) **DL-300**: 242 q (0.53 lb) DL-300-WIFI/RF407/RF412/RF422/CELL200: 249.5 g (0.55 lb) Weight **DL-310**: 288 g (0.64 lb) DL-310-WIFI/RF407/RF412/RF422/CELL200: 306 q (0.68 lb) **DL-300**: 13.97 x 7.62 x 4.56 cm (5.5 x 3.0 x 1.8 in) **Dimensions DL-310**: 16.26 x 7.62 x 5.68 cm (6.4 x 3.0 x 2.2 in) Operating  $-40^{\circ}$  to  $+70^{\circ}$ C Temperature Range







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