

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.



Eliminate wiring 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.



DL-310 Data Logger



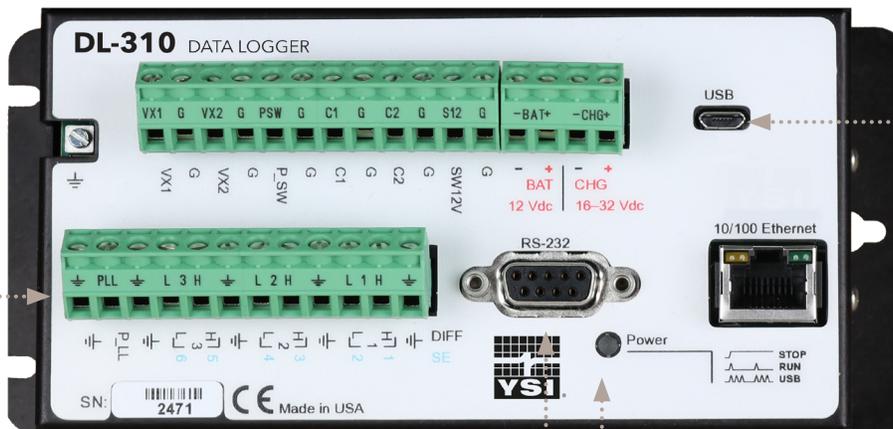
See reverse for specifications

YSI.com/DL300

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
Connection	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 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	Charge Terminal Pair (-CHG+) for 16 to 32 V from dc power converter or 12 or 24 V solar panel (10 W)
Power Consumption @ 12 Vdc	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)
Output	One Switched 12 V Terminal (SW12V) for powering sensors or communication devices, 1100 mA @ 20°C; Two Sensor Excitation or Continuous 0.15 to 5 V Terminal (VX1, VX2) for sensor excitation or output control
Analog Input Terminals	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. 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).
Pulse Counting Terminals	P_SW : Switch closure (150 Hz), High frequency counter (35 kHz) P_LL : Low level ac (20 kHz), High frequency counter (20 kHz)
Control Terminals	(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 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.
Analog Accuracy	±(0.04% of reading ±6 μV), 0° to 40°C
Effective Resolution	0.23 μV (±34 mV range, differential measurement, input reversal, 50/60 Hz f _{N1})
Weight	DL-300 : 242 g (0.53 lb) DL-300-WIFI/RF407/RF412/RF422/CELL200 : 249.5 g (0.55 lb) DL-310 : 288 g (0.64 lb) DL-310-WIFI/RF407/RF412/RF422/CELL200 : 306 g (0.68 lb)
Dimensions	DL-300 : 13.97 x 7.62 x 4.56 cm (5.5 x 3.0 x 1.8 in) DL-310 : 16.26 x 7.62 x 5.68 cm (6.4 x 3.0 x 2.2 in)
Operating Temperature Range	-40° to +70°C