

## Instrumentation

### DL76 Wall mounting pulse datalogger



The DL76 is a battery powered data logger that can be used with any Seametrics flowmeter or other device (contact Flowtechnik). It stores pulses for up to 3 years, depending on the user selected frequency of reading. Indicator lights on the unit flash to indicate when it is functioning and when the battery is low.

The DL76 can be factory mounted on the meter or remotely (wall) mounted. Housings are rugged cast aluminum, gasketed for environmental protection.

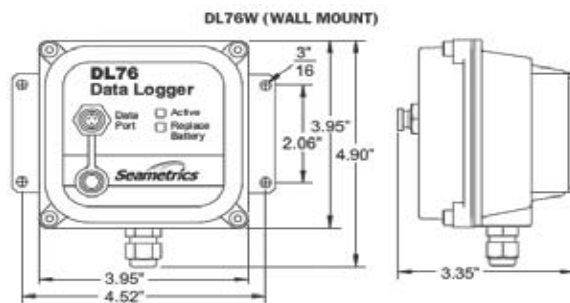
When a DL76 logger is placed into operation, it is easily set up using a laptop computer. Data is also retrieved from the DL76 by means of a laptop and can be analyzed on the laptop or easily loaded on a desktop computer for analysis.

\*FlowInspector version 2 software (ordered separately) is required for the downloading, storing, viewing, graphing, charting and printing of data in several formats. FlowInspector requires a PC with Windows 98, NT, 2000, XP, Vista or Windows 7; CD-Rom drive; 800 x 600 screen resolution; serial port or USB/serial adapter; and a Seametrics DC3 data cable. FlowInspector can be used with an unlimited number of dataloggers.

#### Technical Information

<b>Power</b>	Size C 3.6 Vdc lithium battery (included)
<b>Battery Life</b>	~3 years (varies with sampling interval)
<b>Temperature</b>	0° to 130° F (-18° to 54°C)
<b>Rate Units</b>	
<b>Volume</b>	mL, liter, gallon, Imperial gallon, cubic foot, cubic meter, million gallon
<b>Time</b>	Seconds, minutes, hours, days
<b>Total Units</b>	Liter, gallon, Imperial gallon, cubic foot, cubic meter, Mgallon, acre-foot, acre-inch, megaliter, thousand-gallon
<b>Data Storage Capacity</b>	Capacity at Sampling Interval
	11 days at 15 seconds
	22 days at 30 seconds
	44 days at 60 seconds
	6 months at 240 seconds
	1 year at 480 seconds
3 years at 1450 seconds	
<b>Max Input Frequency</b>	500 Hz
<b>Indicators</b>	Low battery; Power
<b>Memory Wraparound</b>	Selectable options (Stop or Overwrite)
<b>Clock Accuracy</b>	10 minutes/month (.02%)

#### Dimensional Information



- Rugged Industrial housing
- Battery powered
- Meter or remote mount option
- c/w software and cables

#### Option & Ordering Information

<b>MODEL</b> Data Logger = DL76  <div style="border: 1px solid black; background-color: #e0e0e0; padding: 2px; width: fit-content;">DL76</div>	<b>MOUNTING</b> Mechanical meter mount = M Insertion magmeter mount = ME Wall mount = W	<b>SOFTWARE</b> FI-SW Version 2
<b>ACCESSORIES</b> Data Logger Cable for Laptop = DC3		
<b>NOTE:</b> If used with a laptop configured with a USB port, a serial-to-USB converter cable is required. Four cables have been tested and proven compatible: IO Gear UG-232A; Keyspan USA-19HS; Airlink101 AC-USB; and Goldx GXMU-1200. <b>NOTE:</b> FlowInspector software is provided at no charge but must be ordered as a separate line item.		

## Instrumentation

### SRD-99 series multichannel analogue datalogging LCD display & software

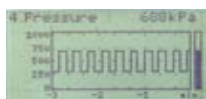


The MultiLog SRD-99 device is designed to record and display current values as well as to present technological parameters in the form of graphs. The device is equipped with eight temperature (Pt100/500/1000) or current (in the 0/4-20mA standard) inputs, one pulse (digital) input for controlling the recording process and one USB Host port for flash data storage.

Internal memory has 2MB capacity (0.5 million data recordings altogether) or 8MB in version with USB port (2 million data recordings). However when a USB flash drive is plugged permanently, it can significantly extend the recording time without a need of data transferring from the SRD-99 to a PC. For example: 1 GB flash drive allows continuous data recording for over 1 year (8 channels record every 1 sec., approx 250 millions data recordings)! Individual alphanumeric description (text) of each recorded channels is possible. The multi-language menu assisted with full text descriptions make the unit configuration process quite easy.

#### Technical Information

<b>Power supply:</b>	19V 50 V DC; 16V 35V AC or 85 260V AC/DC, all separated
<b>Power consumption:</b>	typical 7 VA; max. 12 VA
<b>Display:</b>	graphic LCD, 128 x 64 points, with backlight
<b>Measuring inputs:</b>	1,4 or 8; Pt100; Pt500; Pt1000 (2 and 3-conductor connection) or 0/4-20mA inputs; common ground
<b>Measuring range:</b>	±9999 + decimal point (current inputs); -100°C +600°C (RTD inputs) with resolution 0,1°C
<b>Digital input:</b>	1 input 24V DC, not occupied
<b>Outputs:</b>	2 electronic relays (ER1, ER2) with max. load 24V AC (35 V DC) / 200 mA
<b>Sensors supply (only current version):</b>	24 V DC ±5%, max. 200mA, not separated from measuring inputs
<b>Communication interface:</b>	RS-485 (Modbus RTU) or USB Host port, galvanically separated
<b>Transmission speed:</b>	1200-115200 bit/sec
<b>Internal memory capacity:</b>	2 MB (0.5 million data recordings) in version without USB, 8 MB (above 2 million data recordings) in version with USB Host port
<b>Type of protection:</b>	Version without USB: IP65 (front), available options: additional frame IP65 for panel cut-out sealing, transparent door STD-99
<b>version with USB:</b>	a) IP 40, b) IP 54 (when fitted with STD-99 transparent door)
<b>Working temperature:</b>	0°C +50°C
<b>Storage temperature:</b>	-10C +70°C
<b>Case:</b>	board
<b>Case material:</b>	NORYL-GFN2SE1
<b>Case dimensions:</b>	96 x 96 x 100 mm
<b>Panel cut-out dimensions:</b>	90,5 x 90,5 mm
<b>Installation depth:</b>	min. 102 mm
<b>Board thickness:</b>	max. 5 mm



The history of the process in time



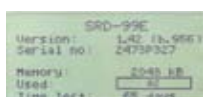
The current value of the measurement signal  
Height of the digits: 18mm



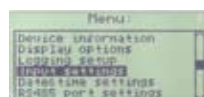
8 channel view displayed at the same time



Logging parameters



Device information



Main menu of the unit

- 96x96 panel mount design
- up to 8 Analogue or Temperature (Pt) inputs
- S485 or USB communications (optional)

## Instrumentation

### SRD-99 series multichannel analogue datalogging LCD display & software

#### Signal converters



SRS-U/4-Z45  
converter USB/RS-485



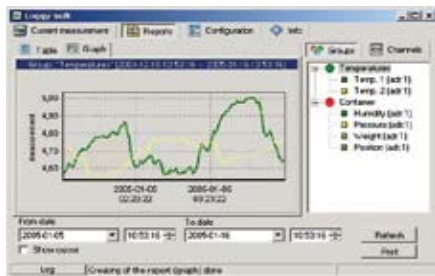
SRS-2/4-Z45  
converter RS-232/RS-485

#### Analysis & Configuration Software



#### Loggy soft

The loggy soft program enables the visualisation, archiving and printing of measurements (e.g. temperature, humidity, pressure) stored in the SRD-99 device memory. Work with SRD-99 type devices takes place through an RS-485 serial interface or portable flash disk devices plugged into the USB port. Connecting a network of units to a serial port (RS-232) or USB port of a PC is possible thanks to a converter (RS-485 to RS-232 or RS-485 to USB) manufactured to suit.



#### S-Toolkit

The S-Toolkit software enables configuration reading and writing operations, updating the device firmware and obtaining basic information on SRD-99 type devices through RS-485 serial interface or portable flash disk devices plugged into the USB port. This application enables to quickly and easily define device parameters in one of three possible configuration models. The set of parameters can be transmitted directly to the device or stored in a file for future use.

#### Options & Ordering Information

