DL76

DATA LOGGER SYSTEM INSTRUCTIONS

SeaMetrics

The Leader in Flow Meter Value

GENERAL INFORMATION

The DL76 is a battery-powered data logger that can be used with any SeaMetrics flowmeter. 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.
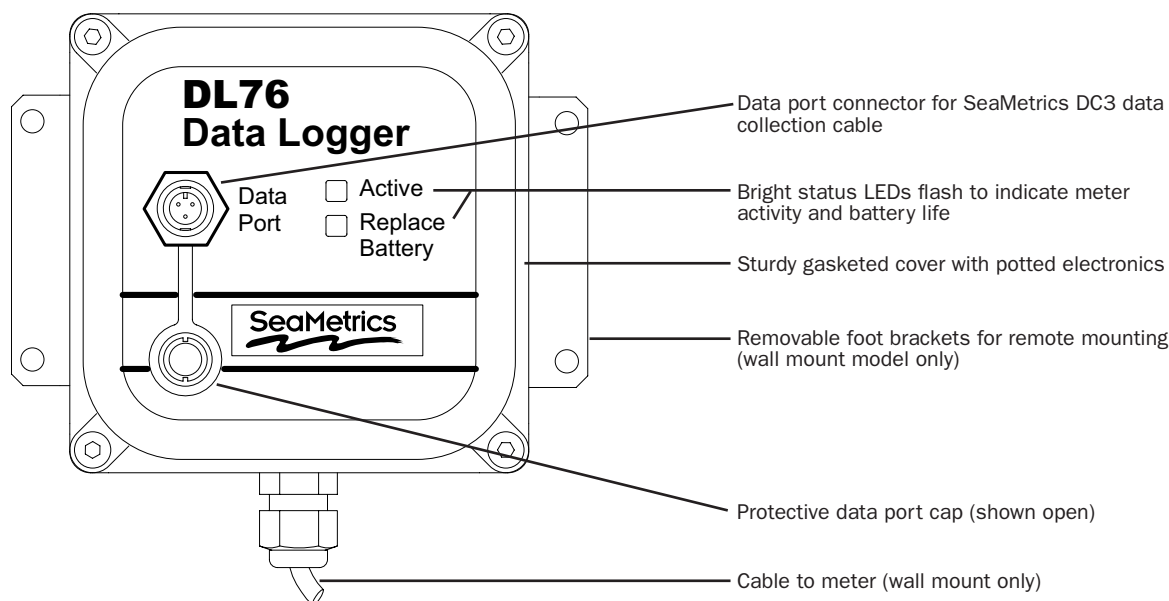
The DL76 can be factory-mounted on the meter or remotely mounted. Housings are rugged cast aluminum, gasketed for environmental protection.

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 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, or Vista; CD-Rom drive; 800 x 600 screen resolution; serial port or USB/serial adapter; and a SeaMetrics DC3 data cable. FlowInspector comes in versions compatible with up to 4, up to 16, or 17+ dataloggers.

FEATURES

DL76
Data Logger

Data Port

Active
Replace Battery

SeaMetrics

- Data port connector for SeaMetrics DC3 data collection cable
- Bright status LEDs flash to indicate meter activity and battery life
- Sturdy gasketed cover with potted electronics
- Removable foot brackets for remote mounting (wall mount model only)
- Protective data port cap (shown open)
- Cable to meter (wall mount only)

SPECIFICATIONS*

Power	3.6 Vdc lithium battery (included)		
Battery Life	~3 years (varies with sampling interval)		
Temperature	0˚ to 130˚ F (-18˚ to 54˚C)		
Rate Units	Volume	mL, liter, gallon, Imperial gallon, cubic foot, cubic meter, million gallon	
	Time	Seconds, minutes, hours, days	
Total Units	Liter, gallon, Imperial gallon, cubic foot, cubic meter, million gallon, acre-foot, acre-inch, megaliter, thousand-gallon		
Data Storage Capacity	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
Indicators	Low battery; Power/flow		
Memory Wraparound	Selectable options (Stop or Overwrite)		
Clock Accuracy	10 minutes/month (.02%)		

*Specifications subject to change • Please consult our website for current data (www.seametrics.com).

MOUNTING

There are three mounting configurations for a DL76: Mechanical Meter (DL76M), Insertion Magmeter (DL76ME), and Wall (DL76W). The meter mount models match up to any SeaMetrics lower square housing. All configurations can be factory-ordered or field-installed. Converting from one mounting configuration to another requires use of MK10 or MK20 mounting kits.

Meter Mounting. Remove the four screws on the meter cover with a 5/32" Allen wrench. After connecting the leads to their respective terminals (see diagram), put the DL76 in place of the meter cover and tighten the screws evenly. The gasket on the DL76 should be visibly compressed by tightening all around.

OPERATION

SeaMetrics FlowInspector V.2 software is required for operation of the DL76. Please consult your FlowInspector manual for instructions in loading the software onto your computer, setting up your DL76 for use, downloading, storing, and analyzing your data.
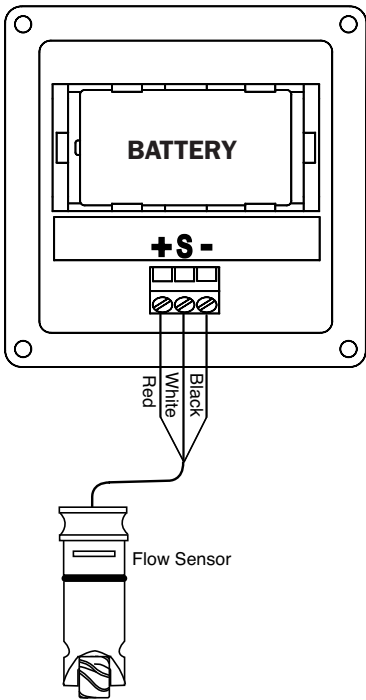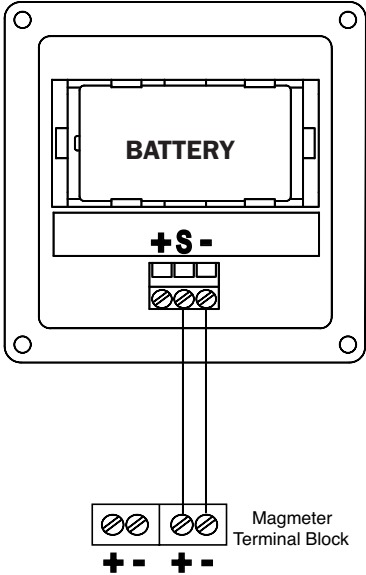
DIMENSIONS

DL76W (WALL MOUNT)

DL76M (METER MOUNT)
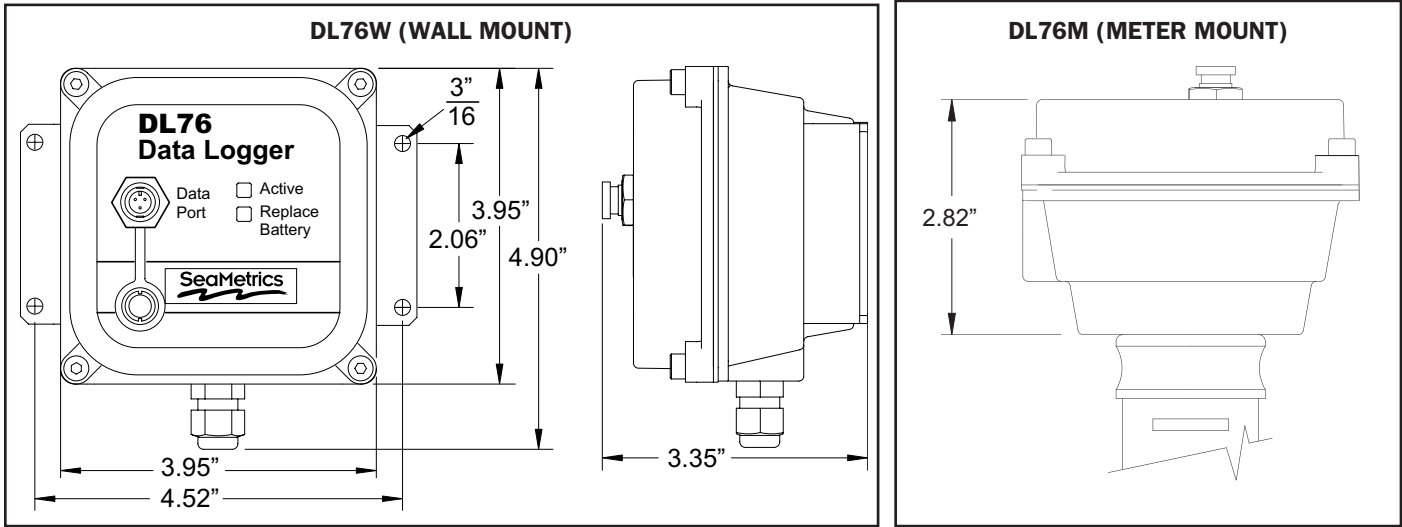
CONNECTIONS (see also next page)

⚠ **Caution:** Do not apply external power to the DL76.

DL76 TO MECHANICAL METER

DL76 TO MAGMETER

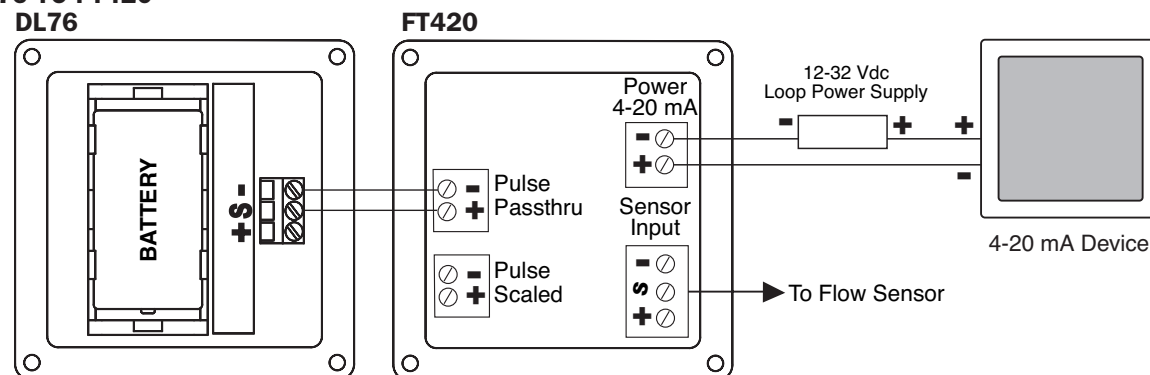## CONNECTIONS

DL76 TO FT415

DL76 **FT415**

BATTERY

+ S −

Outputs
Sensor Pulse

− + − +

BATTERY

Sensor Input

To Pulse Responsive
Metering Pump

To Flow
Sensor

⚠ **Caution:** Do not apply external power to the DL76.

DL76 TO FT420

DL76 **FT420**

BATTERY

+ S −

− Pulse
+ Passthru

Power
4-20 mA

− Pulse
+ Scaled

Sensor
Input

− S +

12-32 Vdc
Loop Power Supply

− +

+ −

4-20 mA Device

To Flow Sensor
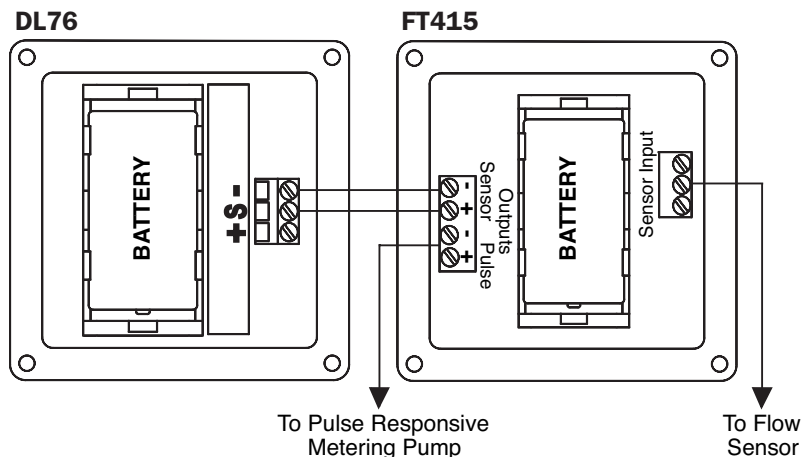
TROUBLESHOOTING

Problem	Probable Cause	Try...
Laptop screen reads "No connection" and "Active" light is <u>NOT</u> blinking	DL76 is transmitting data. Wait two minutes before taking action. Dead battery in DL76	Wait for "Active" light to blink Replace battery
Laptop screen reads "No connection," but "Active" light <u>IS</u> blinking	Loose cable Bad cable	Tighten cable Test cable (tech bulletin "DL75/76: Testing the DC3 Cable" on Downloads page at www.seametrics.com)
Flow rate incorrect	K-factor setting is incorrect	Make sure K-factor in DL76 matches flow sensor
No flow rate	Damaged flow sensor Broken wire	Mechanical: See if rotor spins freely EX Magmeter: See if "Status LED" indicator is blinking Check for flow rate