DataView™
Level Controller

FLOWLINE™
LEVEL BEST

LI55 Series Quick Start

RoHS Compliant CE c(UL)us LISTED

WELCOME TO THE DATAVIEW™ QUICK START

The DataView™ Quick Start provides basic setup and use instructions for getting the LI55 up and running quickly. If you have a non-standard installation or setup requirement that is not addressed here, please refer to the DataView™ manual or support documentation at flowline.com.

DISCLAIMER

The information contained in this document is subject to change without notice. Flowline makes no representations or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose.

CAUTION: Please read complete instructions prior to installation and operation of the controller.

WARNING: Risk of electric shock or personal injury.

Warning

This product is not recommended for life support applications or applications where malfunctioning could result in personal injury or property loss. Anyone using this product for such applications does so at his/her own risk. Flowline, Inc. shall not be held liable for damages resulting from such improper use.

REGISTERED TRADEMARKS

WE DO YOUR LEVEL BEST™

Thank you for purchasing Dataview™ which is offered in twelve models. The AC or DC powered general purpose level controller displays level in engineering units with one 4-20 mA input, and is available with optional 2 or 4 relays, and an isolated 4-20 mA repeater. **Note**: Verify the part number of your controller and follow the instructions accordingly.

Models

85-265 VAC Part Number	12/24 VDC Part Number	Options Installed	Replacement Part Number·
LI55-1001	LI55-8001	No options	N/A
LI55-1201	LI55-8201	2 relays	LI56-1201
LI55-1011	LI55-8011	4-20 mA repeater	LI56-1011
LI55-1401	LI55-8401	4 relays	LI56-1401
LI55-1211	LI55-8211	2 relays & 4-20 mA repeater	LI56-1211
LI55-1411	LI55-8411	4 relays & 4-20 mA repeater	LI56-1411

* Part number for replacement / expansion cards.

Accessories

| Part Number	Description
LI56-1400	4 SPST (Form A) relays
LI56-1000	Controller copy cable
LM91-1002	Single indicator NEMA enclosure
LM91-2002	Two indicator NEMA enclosure

UNPACKING DATAVIEW™

When unpacking DataView™, inspect for any damage that may have occurred during shipment. Report any damage, missing parts or malfunctions to your distributor. Installation is normally done without opening the enclosure that's only required when changing the input from current to voltage.

MOUNTING DATAVIEW™

DataView™ is designed for panel installations, located within an instrument panel or NEMA box enclosure. Follow the below steps to mount the controller.

1. To maintain the NEMA rating, select a panel with a thickness of 0.06"-0.25" (1.5mm-6.4mm). The minimum thickness for steel panel is 0.06" (1.5mm) or a plastic panel is 0.16" (4.1mm).
2. Prepare a standard 1/8" DIN cutout of 3.622" (92mm) W x 1.772" (45mm) H in the panel at the desired mounting location with a minimum of 6.0" (152mm) of clearance behind the panel for wiring.
3. Remove the two mounting brackets from the controller. To do so, back off the mounting screws so they protrude ¼" (6.4mm) or less through the bracket. Then, slide each bracket toward the front of the case and remove them.
4. From the front side of the panel, insert the controller through the panel cutout.
5. From the rear side of the panel, reinstall the two mounting brackets on the controller and tighten the screws against the panel. **Note**: For a proper seal, tighten the two mounting screws evenly against the panel until they are snug. Be careful to not over tighten the brackets.
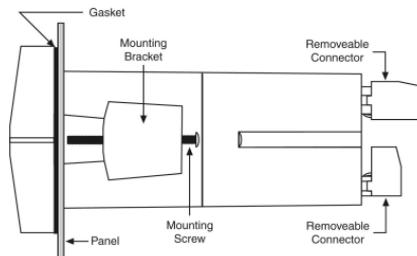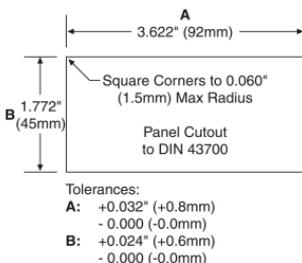
12 OR 24 VDC SUPPLY VOLTAGE

If you purchased a 12/24 VDC model controller, it was configured for 24 VDC supply as the factory default. **Note**: Do not exceed the controller supply voltage rating. If you wish to reconfigure the controller for 12 VDC supply, follow the below steps.

1. Remove all connectors.
2. Unscrew the back cover.
3. Slide the back cover about 1 inch to expose the board.
4. Configure the J9 jumper, located behind the power connector for the desired voltage as shown below.
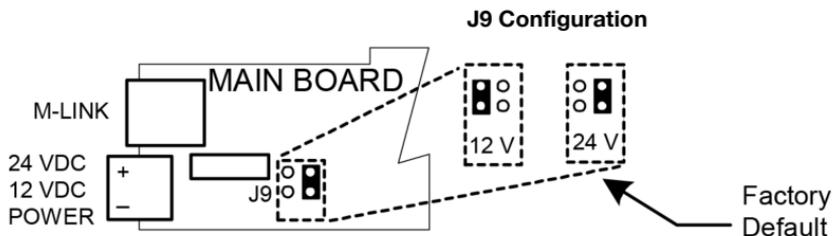
Note: Flowline transmitters require 24 VDC.

TRANSMITTER SUPPLY VOLTAGE (P+, P-)

DataView™ is factory configured to provide 24 VDC power to the sensor. If your sensor requires 5 or 10 VDC excitation, follow the below steps to reconfigure the J4 internal jumper accordingly.

1. Remove all connectors.
2. Unscrew the back cover.
3. Slide the back cover about 1 inch to expose the board.
4. Configure the J4 jumper, located behind the input signal connector for the desired voltage as shown below.
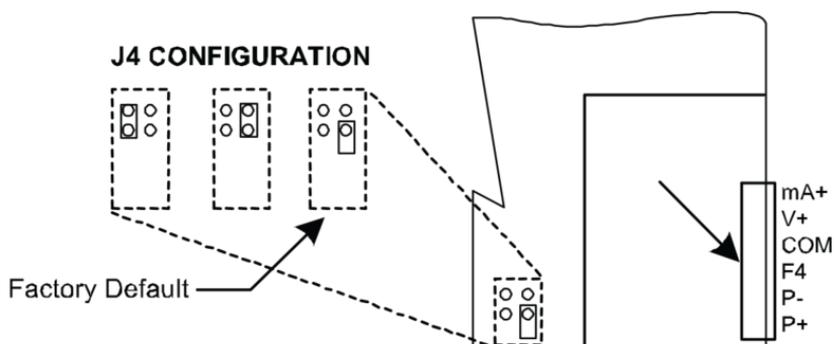
**Note**: Flowline transmitters require 24 VDC.

WIRING DATAVIEW™

All wiring connections are made by attaching wires onto removable screw terminal connectors located at the rear of DataView™. **Note**: Copper wire with 60°C or 60/75°C insulation should be used for all line voltage connections, while observing all safety regulations. Electrical wiring should be performed in accordance with all applicable national, state, and local codes to prevent damage to the controller and ensure personnel safety.

The connector label shows the function of each of the connections, such as POWER, RELAY and SIGNAL. The RJ-45 M-LINK connection is intended for Flowline expansion modules, cables and meters only. Any other use of the RJ-45 connection may damage DataView™ and connected equipment. The different types of connections are explained on the following pages.
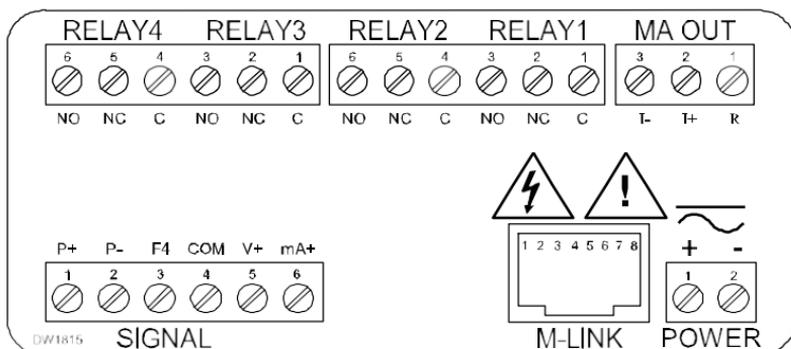
Power Connection

The power source is connected to DataView™ through the two-terminal connector labeled POWER. DataView™ will operate regardless of the polarity connection. The + and - symbols are only a suggested wiring convention.

POWER

AC or DC
POWER
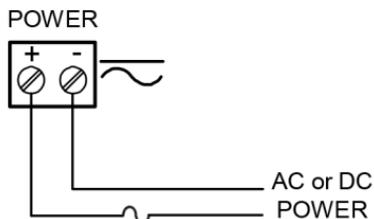
Required External Fuse:
5 A max, 250 V Slow Blow

⚠️ Refer to the part number on the product label and confirm the power requirements for your model.
- LI55-1_ _1 operates on 95 to 265 VAC, 50-60 Hz.
- LI55-8_ _1 operates on 12 to 24 VDC.

Signal Connections

The sensor is connected to DataView™ through the six-terminal connector labeled SIGNAL. The COM (common) terminal is the return for the 4-20 mA and the ±10V input signals. **Note**: Most Flowline level sensors require 2 or 3-wire, 4-20 mA signal connections.

Current Input Connection

Below are examples of typical wiring connections for current sensor inputs. There are no switches or jumpers to set for current inputs. **Note**: The input is protected against overload by a resettable fuse. The display may or may not show a fault condition depending on the nature of the overload. The fuse limits the current to a safe level when it detects a fault condition, and automatically resets itself when the fault condition is removed.

INPUT SIGNAL

2-Wire
Sensor Connection

INPUT SIGNAL
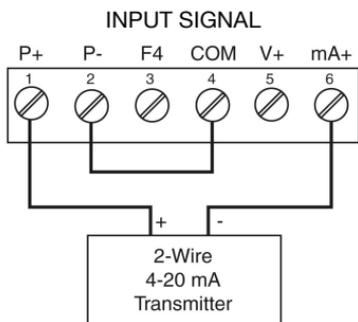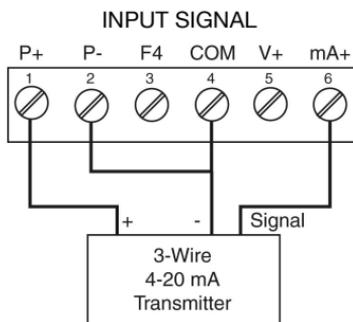
3-Wire
Sensor Connection

INPUT SIGNAL
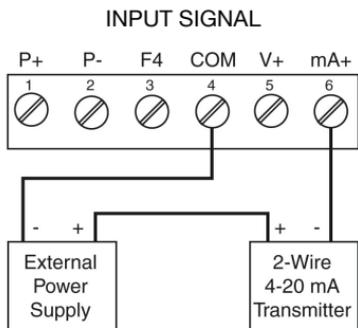
Externally-Powered
2-Wire Sensor Connection

INPUT SIGNAL
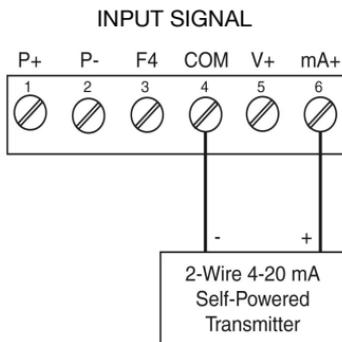
Self-Powered
2-Wire Sensor Connection

Voltage Input Connection

Below are examples of typical wiring connections for voltage sensor inputs.
Note: See the Transmitter Supply Voltage section for optional jumper settings associated with voltage inputs. The input is protected against overload by a resettable fuse. The display may or may not show a fault condition depending on the nature of the overload. The fuse limits the voltage to a safe level when it detects a fault condition, and automatically resets itself when the fault condition is removed.
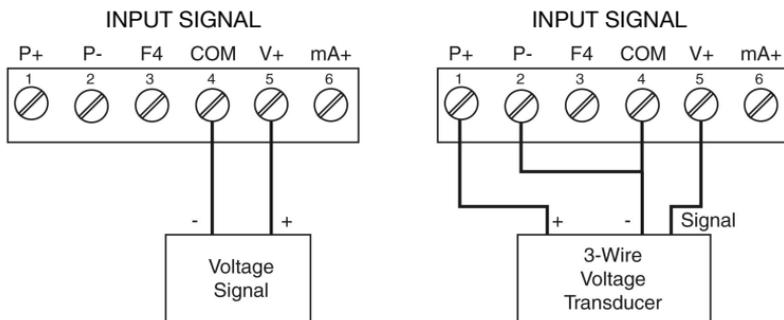

Relay Connection

Relay connections are made through two six-terminal connectors labeled RELAY1-RELAY4. Each relay "C" terminal is common only to the normally open ("NO") and normally closed ("NC") contacts of the corresponding relay. **Note**: The relay "C" terminals should not be confused with the COM (common) terminal of the INPUT SIGNAL connector.
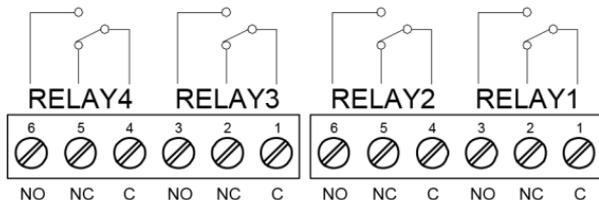
Switching Inductive Loads

When switching inductive loads, suppressors or snubbers should always be employed as they prevent microprocessor disruption and prolong the life of the relay contacts. Suppression can be obtained with resistor-capacitor (RC) networks assembled by the user or purchased as complete assemblies. This section is provided to assist you with suppressor assembly and installation.
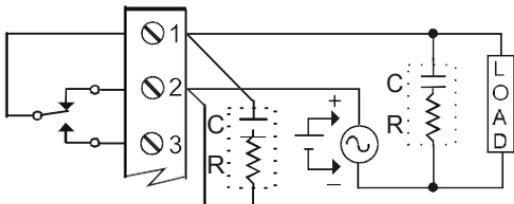
Choose R and C as follows:

R: 0.5 to 1 Ω for each volt across the contacts

C: 0.5 to 1 µF for each amp through closed contacts

When using suppressors:

1. Use capacitors rated for 250 VAC.
2. Confirm proper relay operation. RC networks may affect load release time of solenoid loads.
3. Install the RC network on the DataView's relay screw terminals. An RC network may also be installed across the load.
4. Use a diode with a reverse breakdown voltage that's 2-3 times the circuit voltage and forward current at least as large as the load current.
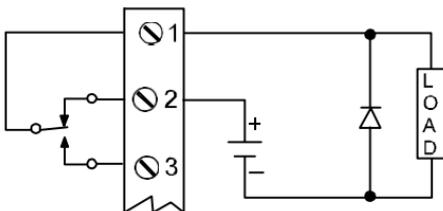
Note: Relays are de-rated to 1/14th HP (50 watts) with an inductive load.

Repeater Output Connections

The repeater may be used to output the 4-20 mA sensor signal to other devices through the connector terminals labeled MA OUT. The 4-20 mA output may be powered internally or from an external power supply.

Internal Power - DataView™ has an internal 24 VDC (40mA) power supply that can be used to power the repeater loop per the below illustration on the left. This circuit provides the excited 4-20 mA signal from the controller to any device that accepts a 4-20 mA signal.

External Power - This circuit requires a separate VDC power supply to power the repeater loop per the below illustration on the right. This circuit provides a passive 4-20 mA signal from the controller to any device that accepts a 4-20 mA signal. **Note:** You will not receive a 4-20 mA signal until the external power supply is added to the loop.
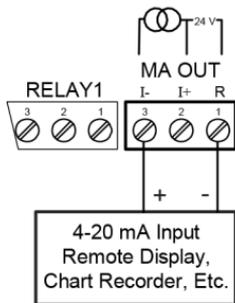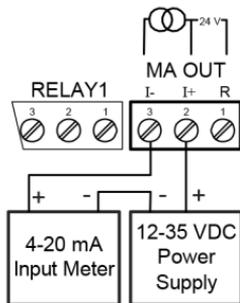
Internal Power   External Power

Analog Output / Transmitter Power Supply

The internal 24 VDC power supply powering the analog output may be used to power other devices, if the analog output is not available. The "I+" terminal is the +24 V and the "R" terminal is the return. This power supply is capable of sourcing up to 40 mA.

USING DATAVIEW™

DataView™ is factory calibrated to read 4-20 mA input signals. The calibration is certified to NIST standards.

Overview

All setup and configuration functions are performed through the front panel interface. After the power and input signal connections have been completed and verified, apply power to the controller.

The top line displays the level or volume in the tank. The bottom line displays the units for the level or volume in the tank.

DataView™ has 7 preset units [Gallons (GAL), Liters (LitEr), Inches (IncH), Feet (FEEt), Centimeters (crn), Meters (rnEtEr) and Percent (PErcnt)] and a custom function [Custom (CuSt)] to configure other units up to 6 alphanumeric characters.

DataView™ uses a graphic system to create characters. While the letters "m" and "w" are not included, they can be created by combining characters.

DataView™ has 1-8 alarm indicators. Indicators 1-4 are enabled by default. When a relay expansion card (LI56-1400) is installed, indicators 5-8 become available.

Push Buttons

DataView™ has four buttons on the right side of the front panel. These are the buttons you will use to set up and configure the controller.

|	
MENU	**Menu** Used to enter or exit the configuration mode, view settings or access advanced features.
RIGHT	**Right** Used to move to the next digit during digit or decimal point configuration; or to reset the max/min readings or other parameter/function assigned through the User menu.
UP	**Up** Used to scroll through the menus, decimal point or to change the value of a digit; or to display the max/min readings or other parameter/function assigned through the User menu.
ENTER	**Enter** Used to access a menu or accept a setting (changes are only saved after this is pressed); or to acknowledge relays or other parameters/function assigned through the User menu.

CONFIGURING DATAVIEW™

Follow the below six steps to configure DataView™ for your application. **Note**: Not all models and configurations will require six steps.

1. Set Units of Operation (UnItS)

    a. This configures the units of operation and is the value that will appear on the display.

2. Set Decimal Point (dEc Pt)

    a. This configures the location of the decimal point. For example, you can configure the display to read to the 1/10th position, 1/100th position or 1/1000th position.

3. Set SCALE (SCALE)

    a. This configures the tank full and empty scale for the controller. For example, 20 mA is typically a full tank and 4 mA is typically an empty tank.

4. Set Relays (rELAY)

    a. This configures the relay functions and set points where they will energize and de-energize. **Note**: This function is only applicable to models with relays.

5. Set Analog Output (Aout)

    a. This configures the repeater analog output. **Note**: This function is only applicable to models with repeaters.

6. Set Password (Pass 1)

    a. This configures a protective password to secure the controller setting.

Entering the Main Menu

The Main Menu contains the most commonly used functions including Units
(unitS), Decimal Point (dEc Pt), Scale (SCALE), Relay (rELAY), Analog Output
(Aout) and Password (PASS 1). To enter and navigate the Main Menu, follow
the below steps.
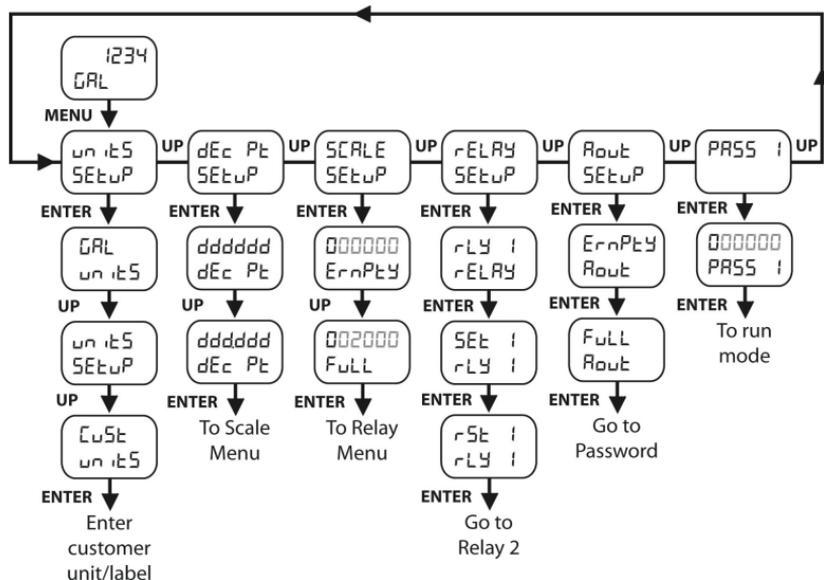
1. Press **Menu** to enter the Main Menu and press **Up** to scroll through the Main
    Menu.

2. To save a changed setting, Press **Enter**. The display will move to the next
    menu item, each time Enter is pressed.

3. To exit and return to the Run Mode, Press **Menu** anytime. Changes made to
    prior to pressing Enter are not saved.

Set Units of Operation (unitS)

DataView™ can display level in distance (InCHES, crn, FEEt, rnEtEr), volume (GAL, LItErS) or custom engineering units. Determine the units of operation that you wish to use, and remember that the units chosen will not only represent the displayed values, but also the settings for the relays and repeater output. To set the Units of Operation, follow the below steps.
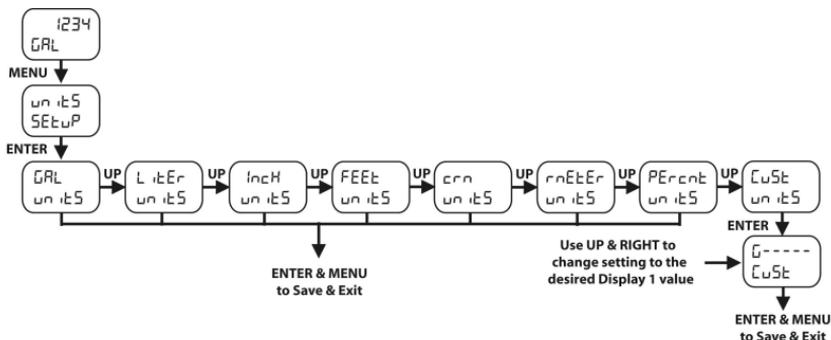
1. Press **MENU** to enter the Main Menu and Units (unitS) will be the first available menu option.

2. Press **ENTER** and the current Units setting will appear.

3. Press **Up** to scroll through the options for Units. Choices include Gallons (GAL), Liters (LitEr), Inches (IncH), Feet (FEEt), Centimeters (crn), Meters (rnEtEr), Percent (PErcnt) and Custom (CuSt).

4. When the correct, press **ENTER** to save this setting and continue to the next function, or press **MENU** to exit.

5. If you selected Custom (CuSt) Units, press **UP** and **RIGHT** to change the 6 display segments to the desired alphanumeric characters. When correct, press **ENTER** to save this setting and continue to the next function.

Set Decimal Point (dEc Pt)

The decimal point can be set to as many as five decimal places. Use the decimal point feature to position the decimal point for all displayed values. Placement of the decimal point will influence the displays resolution. Select the best practical scale for indicating level in your application. For example, setting a scale of 0 to 100% can be shown four different ways. To Set the Decimal Point, follow the below steps.

Example #1	0% to 100%	Reads to the ones place with basic resolution
Example #2	0.0% to 100.0%	Reads to the 1/10's place with additional resolution
Example #3	0.00% to 100.00%	Reads to the 1/100's place with higher resolution (but may not be practical)
Example #4	0.000% to 100.000%	Reads to the 1/1000's place with highest resolution (but probably not practical)

1. Press **MENU** to enter the Main Menu and Units (unitS) will be the first available menu option.

2. Press **Up** to scroll through the menu options until you reach Decimal Point (dEc Pt).

3. Press **ENTER** and the current Decimal Point setting will appear.

4. Press **Right** to move the decimal point on the screen from left to right.

5. When correct, press **ENTER** to save this setting and continue to the next function.
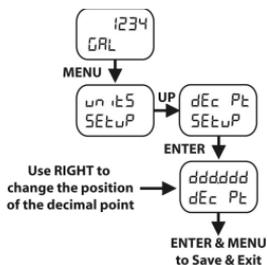
Set SCALE (SCALE)

DataView™ displays information about tank contents in engineering units. The controller uses a two point linearization based upon the Empty and Full settings. **Note**: Although a signal source is not needed to scale DataView™, you must configure the sensor connected to the controller to reflect a 4-20 mA current span between tank empty (4 mA) and full (20 mA). Enter the value you wish the 4 mA signal to reflect when empty (ErnPtY) and the value you wish the 20 mA signal to reflect when full (FuLL) with the below steps.
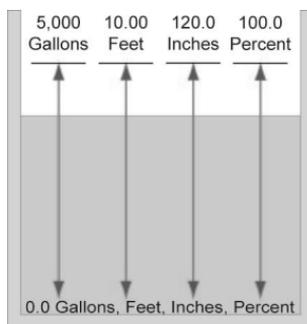

```
5,000   10.00   120.0   100.0
Gallons  Feet   Inches  Percent
```

```
0.0 Gallons, Feet, Inches, Percent
```

1.   Press **MENU** to enter the Main Menu and Units (unitS) will be the first available menu option.

2.   Press **Up** to scroll through the menu options until you reach Scale (SCALE).

3.   Press **ENTER** and Empty (ErnPtY) will appear.

4.   Press **ENTER** to view the existing Empty (ErnPtY) setting. Press **Right** to move the highlighted digit to the right and **Up** to increase the setting's value (that's typically set at 4 mA for an empty tank).

5.   Press **ENTER** to the save this setting and Full (FuLL) will appear.

6.   Press **ENTER** to view the existing Full (FuLL) value. Press **Right** to move the highlighted digit to the right and **Up** to increase the setting's value (that's typically set at 20 mA for a full tank).

7.   Press **ENTER** to save this setting and continue to the next function.

Set SCALE (SCALE)

```
  1234
 GAL
```

MENU ↓

```
unitS        UP    dEc Pt       UP    ScALE
SEtuP      →      SEtuP      →      ProG
```

ENTER ↓

```
ErnPty
SCALE
```

ENTER ↓

**Use Right & Up to
change setting to the
desired EMPTY value** →

```
000000
ErnPty
```

ENTER ↓

```
FuLL
ScALE
```

ENTER ↓

**Use Right & Up to
change setting to the
desired FULL value** →

```
020000
FuLL
```

↓

**ENTER & MENU
to Save & Exit**
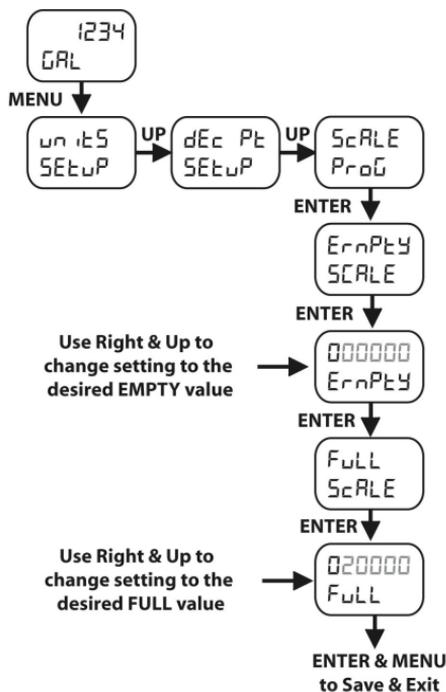
Set Relays (rELAY)

This function sets when the relay(s) will energize (SET#) and de-energize (RST#). All settings are based on the units of liquid defined in the Scale section. **Note**: Never set the relays (SET# or RST#) at the Empty or Full settings. For example, if the Scale is set from 0 to 100 gallons, then the relay settings will be in gallons above 0 and below 100 gallons. The SET# should never be 0 gallons and the RST# should never be 100 gallons.

High Alarm

Low Alarm

Automatic Empty

Automatic Fill
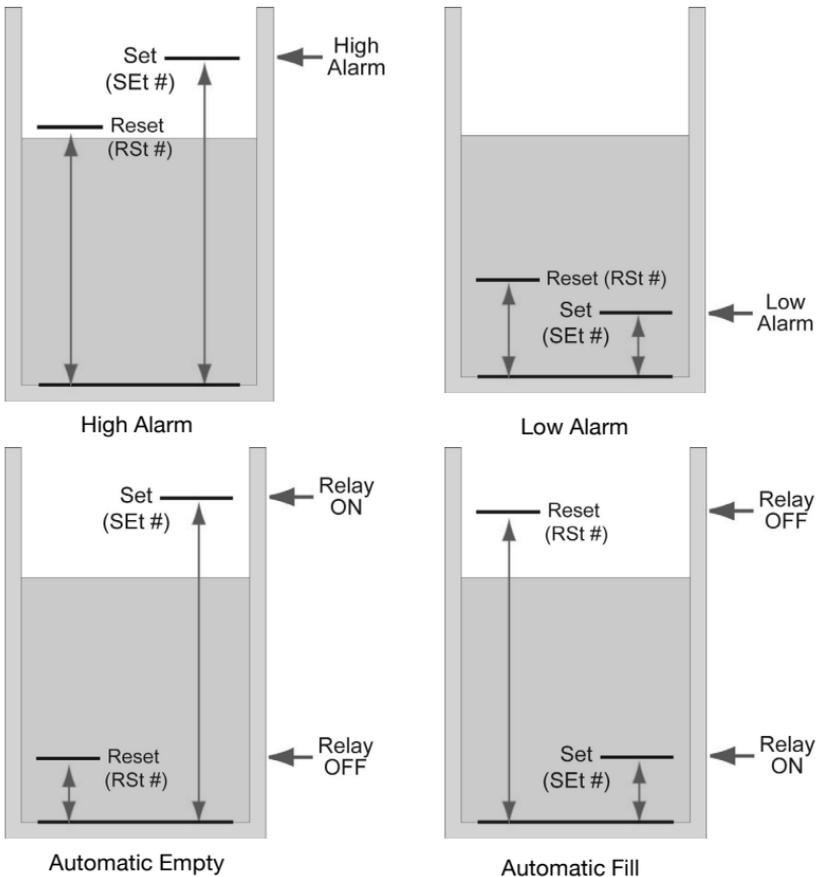
Set Relays (rELAY)

For high level alarms, SEt# defines the level setting where the relay will turn ON, and rSt# defines the level setting where the relay will turn OFF. Increasing the rSt# setting from the SEt# setting, will increase the relay hysteresis. **Note**: The rSt# setting should be lower than the SEt# setting. For low level alarms, SEt# defines the level setting where the relay will turn ON, and rSt# defines the level setting where the relay will turn OFF. Increasing the rSt# setting from the SEt# setting, will increase the relay hysteresis. **Note:** The rSt# setting should be higher than the SEt# setting. For automatic fill or empty (controlling pumps or valves), SEt# defines the level setting where the relay will turn ON and rSt# defines the level setting where the relay will turn OFF. To set the relays, follow the below steps.

1. Press **MENU** to enter the Main Menu and Units (unitS) will be the first available menu option.

2. Press **Up** to scroll through the menu options until you reach Relay (rELAY).

3. Press **ENTER** and Relay 1 (rLY 1) will appear. Press **Up** to scroll through the relays.

4. Press **ENTER** to select a relay and Relay Set Point (SEt #) will appear. SEt # defines the level setting where the relay will turn ON.

5. Press **ENTER** to view the existing Relay Set Point (SEt #) setting. Press **Right** to move the highlighted digit to the right and **Up** to increase the setting's value.

8. Press **ENTER** to the save this setting and Relay Set Point (rSt #) will appear. rSt # defines the level setting where the relay will turn OFF.

9. Press **ENTER** to view the existing Relay Set Point (rSt #) setting. Press **Right** to move the highlighted digit to the right and **Up** to increase the setting's value.

10. Press **ENTER** to the save this setting and the next relay in sequence (rLy #) will appear. Press **ENTER** to configure the next relay per the above steps.

Set Relays (rELAY)

```
  1234
  GAL
```
MENU ↓

```
un itS          dEc Pt          SCALE           rELAY
SEtuP    UP→    SEtuP    UP→    SEtuP    UP→    SEtuP
```

MENU to Exit

ENTER ↓

```
rLY 1           rLY 2           rLY 3           rLY 4
rELAY    UP→    rELAY    UP→    rELAY    UP→    rELAY
```

ENTER ↓

```
SEt 1
rLY 1
```

ENTER ↓

Use RIGHT & UP to change setting to the desired relay start level →

```
007.000
SEt 1
```

ENTER ↓

```
rSt 1
rLY 1
```

ENTER ↓

Use RIGHT & UP to change setting to the desired relay start level →

```
006.000
rSt 1
```

ENTER
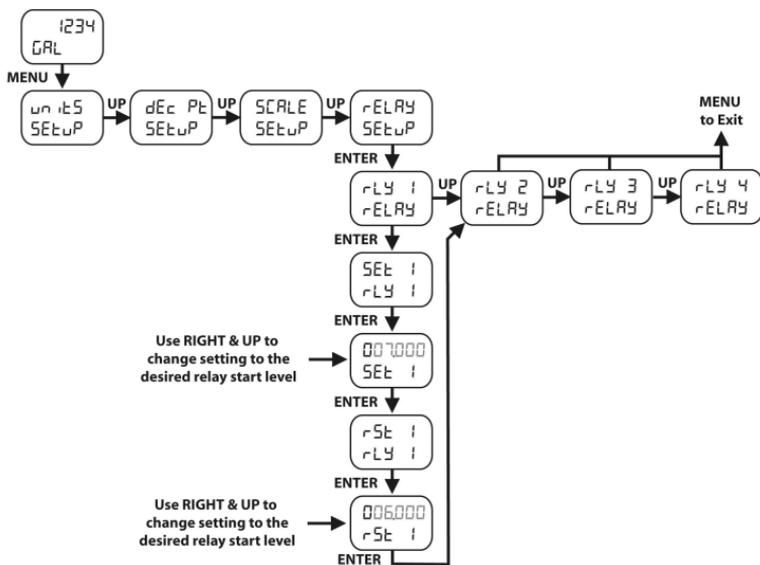
Set Analog Output (Aout)

With the repeater Analog Output, you can transmit the 4-20 mA signal to another device such as a PLC or SCADA. The repeater can be scaled identically with the 4-20 mA input signal (repeating the input current) or scaled to a smaller span (range of the input current). The Analog Output uses a two point linearization based upon the Empty and Full settings. **Note**: When using the Analog Output, the (Aout) must be configured to ensure that the repeater scale (Empty and Full settings) matches the input current. Otherwise, the repeater output may be scaled differently than the input leading to unexpected values. Before configuring the Analog Output, make sure that Set Scale (SCALE) is done. To configure the Analog Output, follow the below steps.
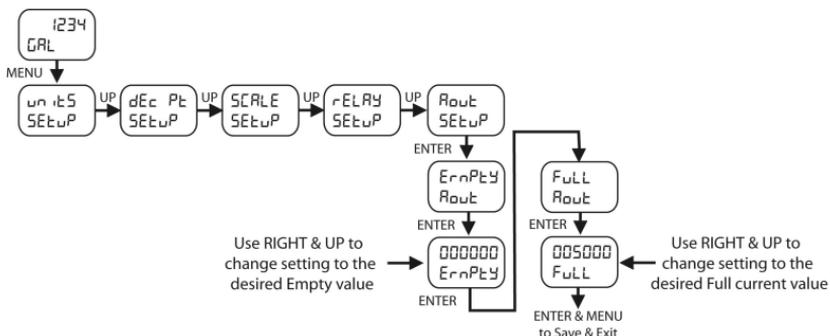
1. Press **MENU** to enter the Main Menu and Units (unitS) will be the first available menu option.

2. Press **Up** to scroll through the menu options until you reach Analog Output (Aout).

3. Press **ENTER** and Empty (ErnPtY) will appear.

4. Press **ENTER** to view the existing Empty (ErnPtY) setting. Press **Right** to move the highlighted digit to the right and **Up** to increase the setting's value (that's typically set at 4 mA for an empty tank).

5. Press **ENTER** to the save this setting and Full (FuLL) will appear.

6. Press **ENTER** to view the existing Full (FuLL) value. Press **Right** to move the highlighted digit to the right and **Up** to increase the setting's value (that's typically set at 20 mA for a full tank).

7. Press **ENTER** to save this setting and continue to the next function.

Set Password (PASS 1)

The Password menu is used to configure a 6-digit password to prevent unauthorized changes to the controller settings. **Note**: Record the password for future reference. If appropriate, it may be recorded in the space provided. To configure the Password, follow the below steps.
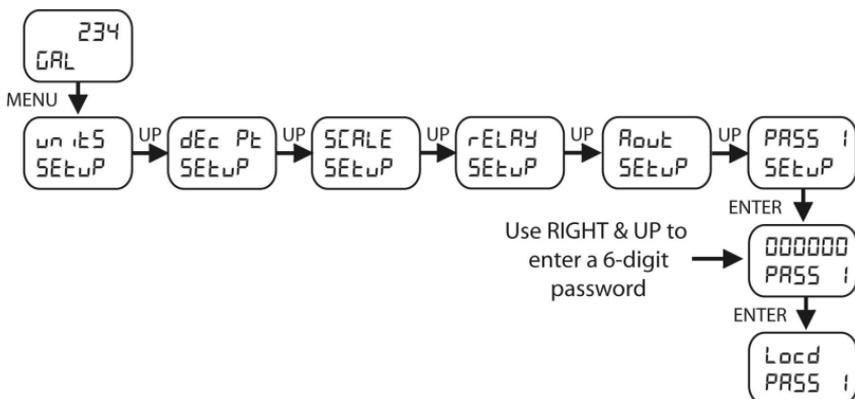
Use RIGHT & UP to enter a 6-digit password

1. Press **MENU** to enter the Main Menu and Units (unitS) will be the first available menu option.
2. Press **Up** to scroll through the menu options until you reach Password (PASS 1).
3. Press **ENTER** and 000000 will appear. Press **Right** to move the highlighted digit to the right and **Up** to increase the Password value. Enter the six-digit password.
4. Record the Password.

Model:

Serial Number:

Password:

5. Press **ENTER** to save the Password and Locked (Locd) will appear.
6. Press **MENU** to exit.

Access Password Protection

If the controller is password protected, the display will message Locd (locked)
when the Menu button is pressed. To access the controller, press **ENTER** while
the Locd message is displayed, enter the correct password, and press **ENTER**
again. Upon exiting the Menu, the controller will return to password protection.

Disable Password Protection

To disable password protection, access the Password menu (PASS 1) and enter
the correct six-digit password. The controller will be then unprotected until a new
password is configured. To disable password protection, access the password
protected controller (as described above) and then follow the below steps.
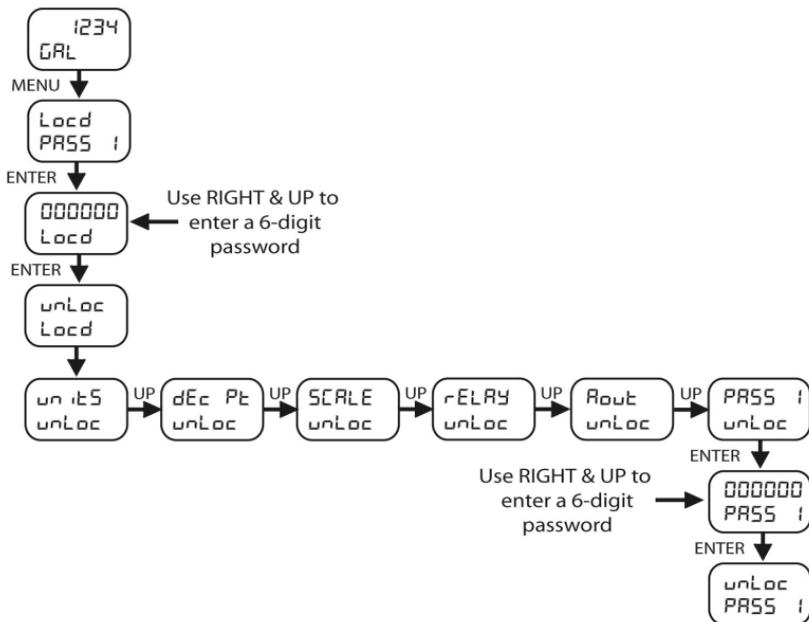
1.   Press **MENU** to enter the Main Menu and Units (unitS) will be the first available
     menu option.
2.   Press **Up** to scroll through the menu options until you reach Password (PASS 1).

Disable Password Protection

3. Press **ENTER** and 000000 will appear. Press **Right** to move the highlighted digit to the right and **Up** to increase the Password value. Enter the correct six-digit password.

4. Press **ENTER** and Unlocked (unLoc) will appear.

    a. If the password is incorrect, the display will message Locked (Locd) for two seconds, and then return to the Run Mode. To try again, press **Enter** while the Locked (Locd) message is displayed.

Master Password

If you forgot the password, the password may be disabled by entering a master password once. If authorized, enter the master password **508655** to unlock the controller.

RESETTING DATAVIEW™ TO FACTORY DEFAULT

To reset the controller to its factory default configuration, follow the below steps.

Press & hold MENU for 5 seconds to access FULL MAIN menu

Press & hold MENU for 5 seconds to access Advanced menu

Press & hold F1 for 5 seconds to reset display

Press F2 repeatedly to get to diAG

Press F3 quickly when display flashes rESEt
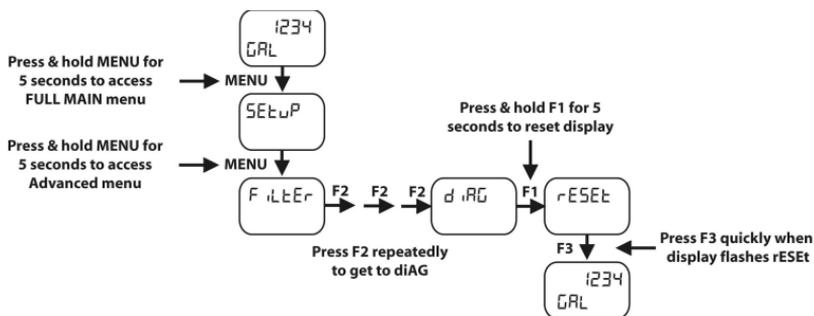
1. Press and hold **MENU** for 5 seconds and Setup (SEtuP) will appear.
2. Press and hold **MENU** again for 3 seconds and Filter (FiLtEr) will appear.
3. Press **Up** to scroll through the menu options until you reach Diagnostics (diAG).
4. Press and hold **Right** for 3 seconds and Reset (rESEt) will appear.
5. Press **ENTER** and the controller will go through an initialization sequence, load its factory default configuration and return to the Run Mode.

WARRANTY

Flowline warrants to the original purchaser of its products that such products will be free from defects in material and workmanship under normal use and service in accordance with instructions furnished by Flowline for a period, which is equal to the shorter of one year from the date of purchase of such products or two years from the date of manufacture of such products. Flowline's obligation under this warranty is solely and exclusively limited to the repair or replacement, at Flowline's option, of the products or components, which Flowline's examination determines to its satisfaction to be defective in material or workmanship within the warranty period. Flowline must be notified pursuant to the instructions below of any claim under this warranty within thirty (30) days of any claimed lack of conformity of the product. Any product repaired or replaced under this warranty will be warranted only for the remainder of the original warranty period.

RETURNS

Products cannot be returned to Flowline without Flowline's prior authorization. To return a product that is thought to be defective, go to flowline.com, and submit a customer return (MRA) request form and follow the instructions therein. All warranty and non-warranty product returns to Flowline must be shipped prepaid and insured. Flowline will not be responsible for any products lost or damaged in shipment.

LIMITATIONS

This warranty does not apply to products which: 1) are beyond the warranty period or are products for which the original purchaser does not follow the warranty procedures outlined above; 2) have been subjected to electrical, mechanical or chemical damage due to improper, accidental or negligent use; 3) have been modified or altered; 4) anyone other than service personnel authorized by Flowline have attempted to repair; 5) have been involved in accidents or natural disasters; or 6) are damaged during return shipment to Flowline. Flowline reserves the right to unilaterally waive this warranty and dispose of any product returned to Flowline where: 1) there is evidence of a potentially hazardous material present with the product; or 2) the product has remained unclaimed at Flowline for more than 30 days after Flowline has dutifully requested disposition. This warranty contains the sole express warranty made by Flowline in connection with its products. ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY DISCLAIMED. The remedies of repair or replacement as stated above are the exclusive remedies for the breach of this warranty. IN NO EVENT SHALL FLOWLINE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING PERSONAL OR REAL PROPERTY OR FOR INJURY TO ANY PERSON. THIS WARRANTY CONSTITUTES THE FINAL, COMPLETE AND EXCLUSIVE STATEMENT OF WARRANTY TERMS AND NO PERSON IS AUTHORIZED TO MAKE ANY OTHER WARRANTIES OR REPRESENTATIONS ON BEHALF OF FLOWLINE. This warranty will be interpreted pursuant to the laws of the State of California. If any portion of this warranty is held to be invalid or unenforceable for any reason, such finding will not invalidate any other provision of this warranty.

For complete product documentation and technical support, go to flowline.com. For phone support, call 562-598-3015 from 8am to 5pm PST, Monday-Friday. Please have the Part and Serial number available.