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IM/L150-Q Issue 2

## QUICK REFERENCE GUIDE

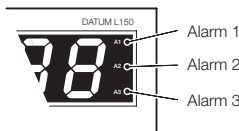
### Welcome to the DATUM L150 Level Indicator

This quick reference guide contains an overview of the steps required to put your DATUM L150 Level Indicator into operation, together with overviews of front panel indicators & controls, operating/configuration displays and a basic index to the User Guide.

### Getting Started

- Establish suitable mounting positions for the instrument and sensor – see Section 5 of the User Guide and inside this guide.
- Make the appropriate electrical connections – see steps ① to ③ on page 1 overleaf. Power up the instrument.
- Set-up the Input Type, Display, Hardware, Alarm, Specific Gravity and Volume parameters using the examples and Displays Overview overleaf.

### Displays and Controls



#### Frame Advance



Use to advance to the next frame within a level or select the top level frame from within a level.

#### Function Key



Use to view a parameter setting or selection or to select individual characters in a frame.

#### Raise and Lower

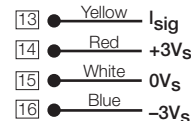


Use to change/set a parameter value or move between levels

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## CONNECTING THE DATUM L150 LEVEL INDICATOR

① Make connections to the Sensor Input and the Digital Input (if required). Note: Connect cable screen to earth at instrument end.



1 to 10mA  
P851/P861  
Sensor Input



4 to 20mA  
P871/P881  
Sensor Input



Volt-free/TTL  
Logic Input

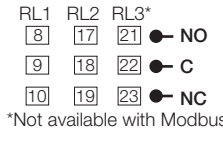
② Connect the analog, digital, relay and serial outputs, as applicable.



4 to 20mA  
Analog Retx  
Output



24V  
Digital  
Output



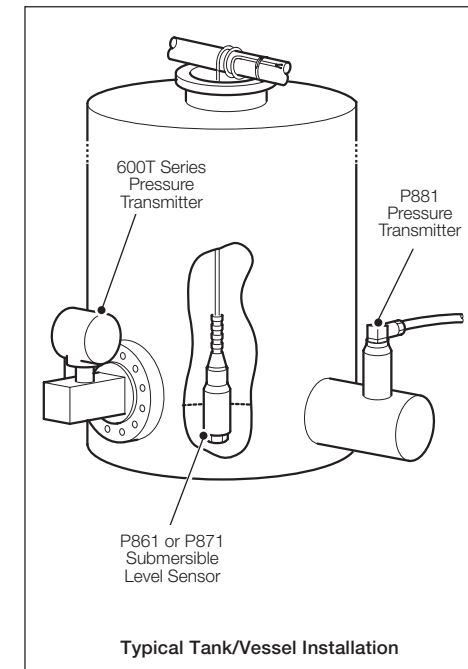
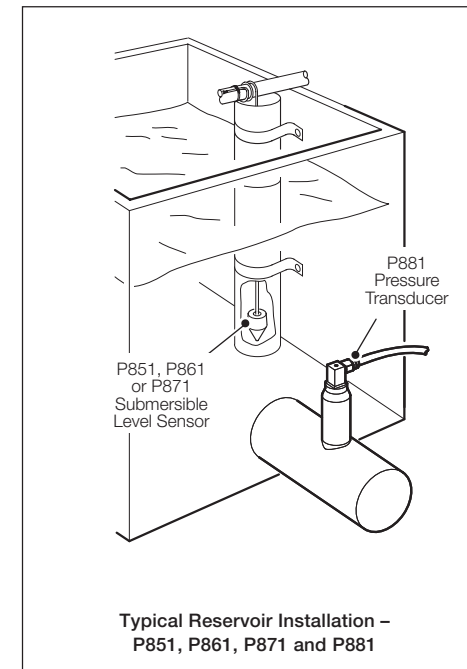
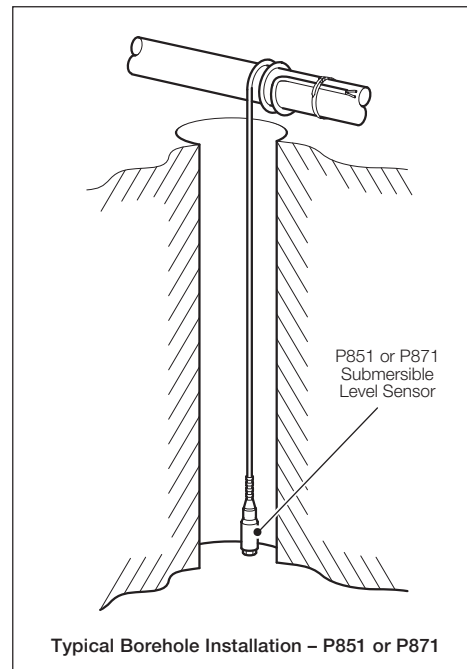
Relay Outputs  
RL1 to RL3

Modbus (If fitted)

③ Connect the Power Supplies



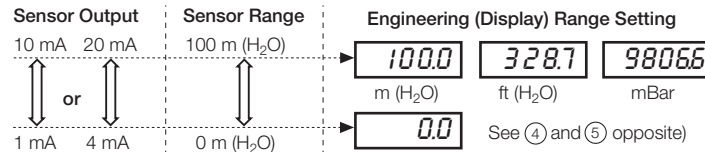
85 to 265V AC  
or 24V DC  
Incoming Power  
Supplies



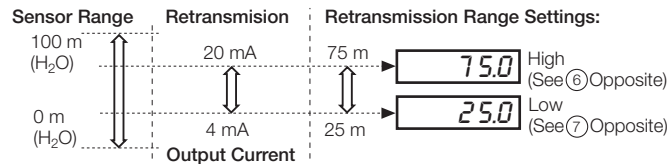
## BASIC CONFIGURATION – EXAMPLES

### Level Measurement

P851, P861, P871, P881 Series level sensors are supplied pre-calibrated to a fixed range, detailed on the sensor data plate. Use the upper and lower sensor pressure range to set the maximum instrument display range:

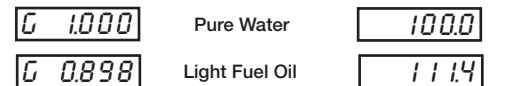


The 4 to 20 mA Retransmission Output can be configured to limits that are independent of the Display Range:



### Specific Gravity Compensation

Specific Gravity (SG) Compensation adjusts the sensor output to compensate for the specific gravity of the measured fluid:

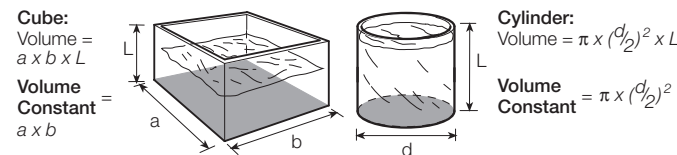


Specific Gravity (See (8) Opposite)

Compensated Reading

### Volume Constant

The Volume Constant is used in applications where there is a linear relationship between level and volume. If the Volume Constant is set to 3 (m<sup>2</sup>) and the measured level is 50m, the displayed volume value is 150m<sup>3</sup>. Using a Volume Constant of 660 (i.e. 3m<sup>2</sup> x 220 gallons/m<sup>3</sup>) displays the same volume as 33,000 gallons.



## OVERVIEW OF OPERATING AND CONFIGURATION DISPLAYS

