

INDEX TO USER GUIDE

Alarms

Acknowledgement	8, 9, 11, 24
High/Low Process	18, 22
Hysteresis	13, 14, 20, 21, 22
Indicators/LEDs	5
Latched	21, 24
Rate Alarms	21, 23
Trip Point	13, 14
Type	19, 21

Analog Input –

Connections	33, 34
Filter	26
Set Up, Configuration	18, 26

Analog Output –

Connections	36
Retransmission Range	28

Average Value –

see Averaging Functions

Averaging Functions

Enabling	9, 14
Resetting	9, 14, 25

Calibration

Offset Adjustment	15
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Configuration Mode

Accessing	8, 10, 11, 29
Indication of	5

Connections –

see Electrical Connections

Decimal Places

18, 19

Dimensions

34

Electrical Connections

36, 37

Error Messages

6

Fault Finding –

see Error Messages

Maximum Value –

see Averaging Functions

Minimum Value –

see Averaging Functions

Modbus Address

29

Mounting

34, 35

Passwords

Entering	8, 10, 11
Setting	29

Retransmission Output

see Analog Output

Sensor Input

see Analog Input

Serial Comms.

26, 27, 29, 37

Set Up Level

12

Siting

32, 33

Specific Gravity

11, 15

Volume Function

Display	11, 25
Volume Constant	29

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QUICK REFERENCE GUIDE

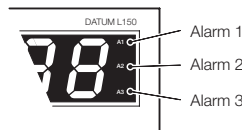
Welcome to the DATUM L160 Level Indicator

This quick reference guide contains an overview of the steps required to put your DATUM L160 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

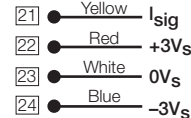


Use to change/set a parameter value or move between levels

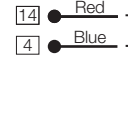


CONNECTING THE DATUM L160 LEVEL INDICATOR

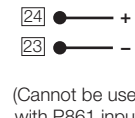
① Make connections to the Sensor Input and the Digital Input (if required). Note: Connect cable screen to earth at instrument end.



1 to 10mA
P851/P861
Sensor Input

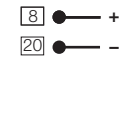


4 to 20mA
P871/P881
Sensor Input

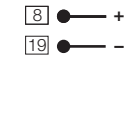


Volt-free/TTL
Logic Input
(Cannot be used with P861 input)

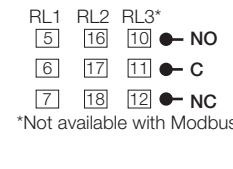
② Connect the analog, digital, relay and serial outputs, as applicable.



4 to 20mA
Analog Retx
Output



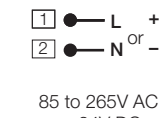
24V
Digital
Output



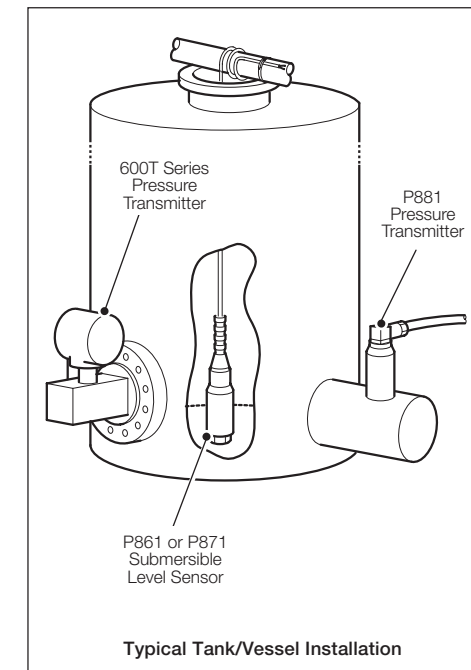
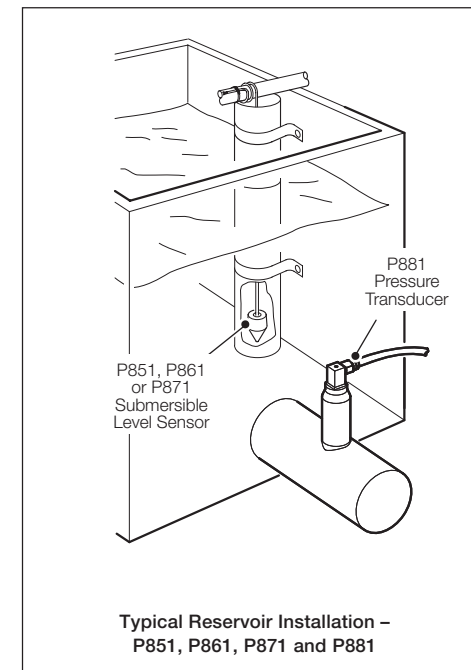
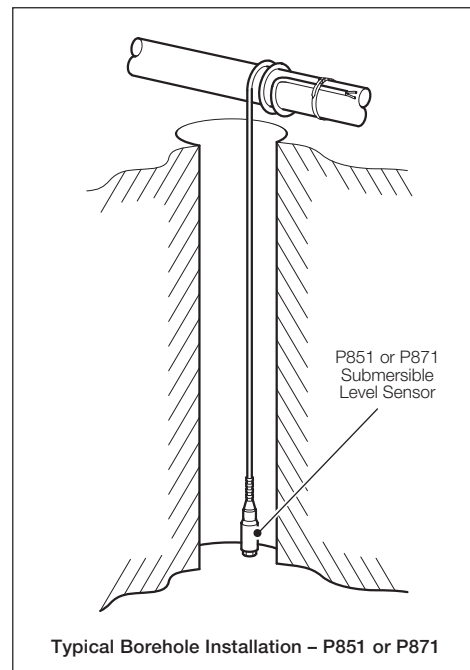
Relay Outputs
RL1 to RL3

Modbus (If fitted)

③ Connect the Power Supplies



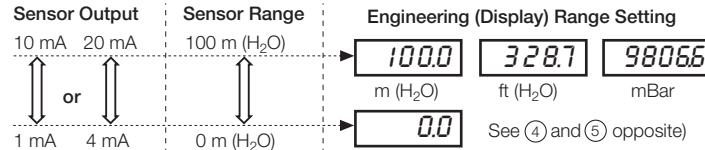
Incoming Power
Supplies
85 to 265V AC
or 24V DC



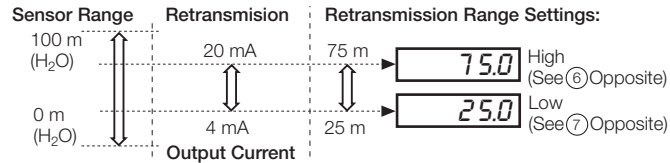
BASIC CONFIGURATION – EXAMPLES

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:

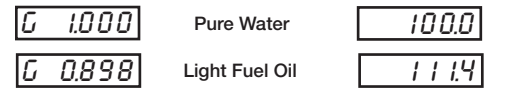


The 4 to 20 mA Retransmission Output can be configured to limits that are independent of the Display Range:



Specific Gravity Compensation

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

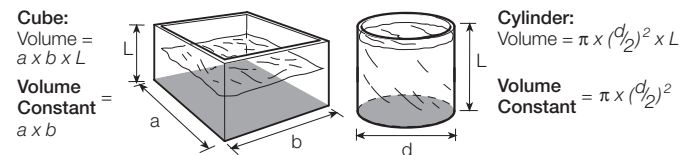


Specific Gravity (See (8) Opposite)

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 (m²) and the measured level is 50m, the displayed volume value is 150m³. Using a Volume Constant of 660 (i.e. 3m² x 220 gallons/m³) displays the same volume as 33,000 gallons.



OVERVIEW OF OPERATING AND CONFIGURATION DISPLAYS

