

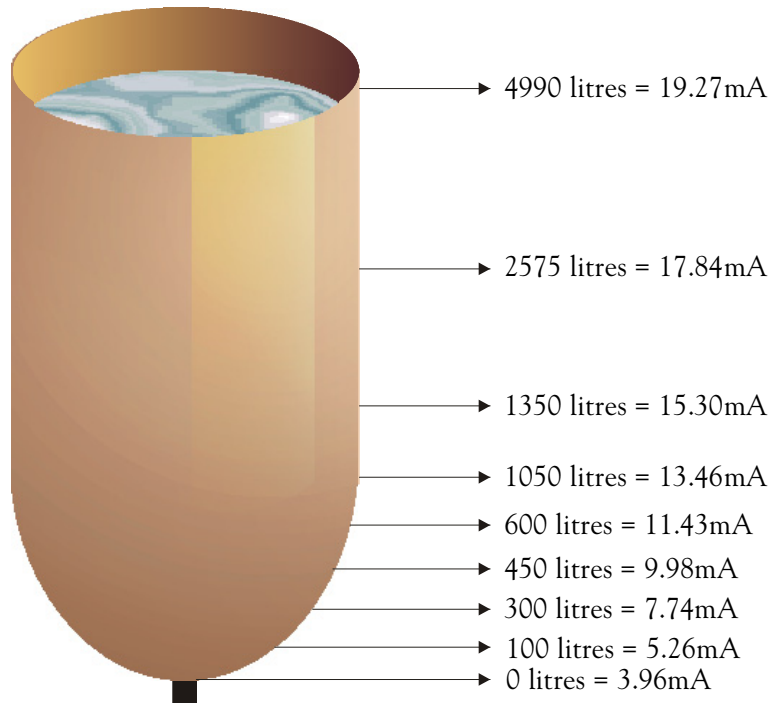
# Tracker 300 for Tank Contents Measurement

## User Linearisation

The user linearisation feature allows the volume of a tank's contents to be calculated from the height of the material in that container. Up to 18 linearisation points can be entered in any order from anywhere in the measurement range. The table of linearisation points is stored in the instrument's memory. Extra points can be added at any time.

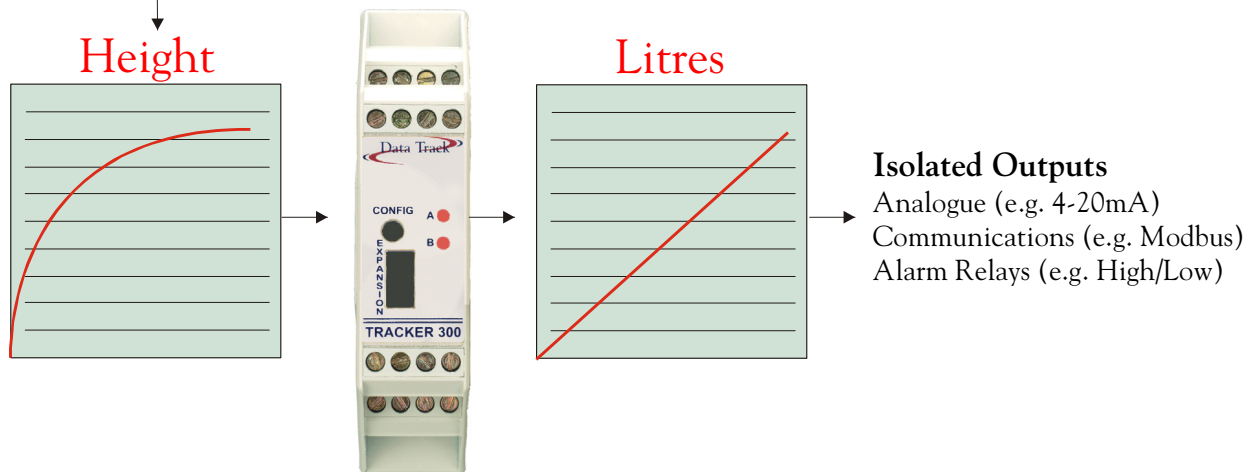
Each linearisation point consists of a volume value (e.g. litres) and a corresponding signal value (e.g. mA). The signal values can be entered manually, or the instrument can "read" the actual signal from the transducer that is measuring the material height.

### Example: Using a pressure transmitter for tank volume measurement



	Eng. Units	Input level - mA
1	0.	3.96
2	100.	5.26
3	300.	7.74
4	450.	9.98
5	600.	11.43
6	1050.	13.46
7	1350.	15.3
8	2575.	17.84
9	4990.	19.27

Values as displayed in the Tracker 300 Setup Program



## Configuration Software

The configuration software (supplied with each unit) allows full setup of the instrument including the linearisation feature. Where a pressure sensor is used to measure liquid height, the system can be calibrated using water (SG=1). If other liquids are to be stored in the tank then the SG value can be modified to compensate as required.

The user selects the input signal type (mV, V, mA or Ohms) and then selects the scaling menu.

Signal Type

Specific Gravity

Number of Calibration Points (can be modified at any time).

Graphical representation of the linearisation curve. This is useful for identifying an incorrect value or an incorrect sequence of values.

Click to sample the measurement for this point or enter the input signal value manually.

Quantity	Eng. Units	Input level mA
1	0.	3.96
2	100.	5.26
3	300.	7.74
4	450.	9.98
5	600.	11.43
6	1050.	13.46
7	1350.	15.3
8	2575.	17.84
9	4990.	19.27
10	0.	0.0
11	0.	0.0
12	0.	0.0
13	0.	0.0
14	0.	0.0
15	0.	0.0
16	0.	0.0
17	0.	0.0
18	0.	0.0

### Notes:

- The user linearisation feature is standard in all Tracker 320 / 330 models.
- User linearisation can be used for some thermistor sensors (resistance) or any other sensor or signal where the process variable is not linear to the input signal.
- Linearisation for thermocouples and RTD sensors are built in to the instrument. The user linearisation feature is not used with these types of sensors.
- If a two wire (4-20mA) sensor is used, the Tracker 321 and 332 modules can provide a 24VDC excitation supply.
- If a local tank volume indication is required, consider the Tracker 220 series (24 points).