

Before attempting any calibration you will need to configure the instrument for a range of 0 to 100% and also set up the current output for 4 to 20 mA for 0 to 100 %. To do this please refer to the MXD70 Manual.

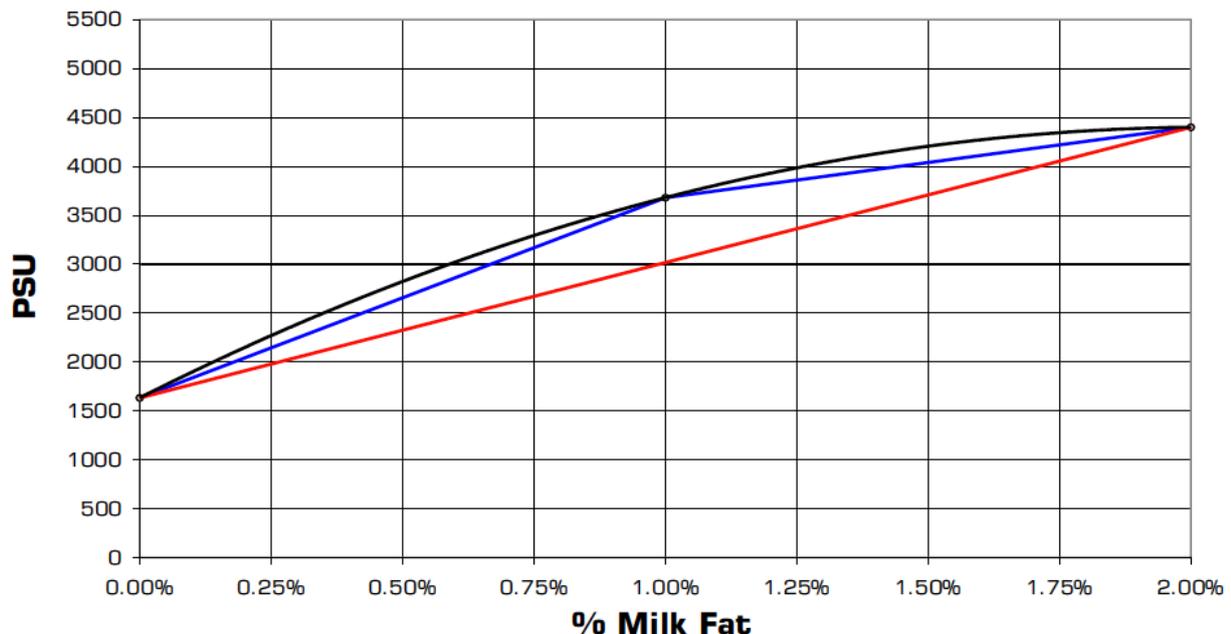
Calibration Steps

For calibration you will need three small sample containers (about 350 ml) one of which will contain water which is our zero point and two milk samples of 1% fat and 2% fat.

1. Insert the sensor into each liquid holding it about 20 mm (1 inch) from the bottom of the container. Make a note of the probe signals for each sample.
2. Using the page key go to the linearisation menu and enter the measurements you have for a three point lineariser.
 - a. Point 1 (water=0%): enter the probe signal units, typically 1600
 - b. Point 2 (1% milk=50%): enter the probe signals, typically 3700
 - c. Point 3 (2% milk=100%): enter the probe signals, typically 4400
3. Calibration is now complete and you can assemble the sensor in the guard and mount it in the drain.

The exact point at which you will want the alarm setting is best determined after you have identified what is the normal level of milk solids in the drain. When you order your Product Loss Monitor specify that it is for milk service and we will supply the instrument pre-calibrated.

Typical 3 Points Linearisation Curve



* Typical values will vary slightly depending on water and milk sources.

Note

It is important to use at least three points in the linearisation curve (Blue trace). as this drastically reduces the error compared to a two point linearisation curve (Red trace) as shown in the figure. The red trace has a maximum error of 700 PSU (at 1.00% Milk Fat), whereas the maximum error on the blue trace is a mere 170 PSU (at 0.50% and 1.50% Milk Fat). This error can be further reduced by using more linearisation points, the MXD73 and MXD75 Transmitter can take up to Ten linearisation points.