

Introduction

Calibration of the CFL-512 is the process of comparing a measuring instrument with the CFL-512 to establish the relationship between the voltages generated by the instrument and the user values, to be calculated by the software Conduct NT.

Calibrate external inputs

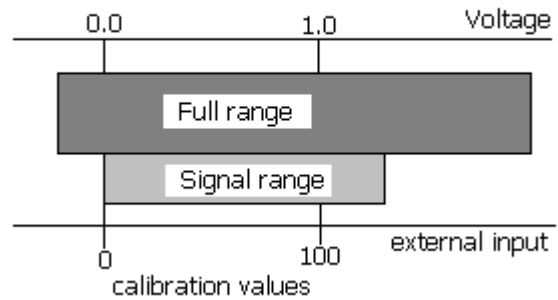
The calibration of the volume signals is done automatically. However the user-supplied signals connected to the external inputs, including pressure from catheter, require initial calibration to enable the software to convert input signal voltages to user units. To optimise resolution of the external signals we have to decrease the effective measuring range.

The calibration form shows us 6 input fields.

The screenshot shows a calibration form for 'Pressure'. It includes fields for 'Full range' (Min: -20.00, Max: 200.00), 'Calibration values' (0.00, 100.00), and 'Voltage' (0.00, 1.00). There are 'Apply Low' and 'Apply High' buttons, and radio buttons for 'Automatic' (selected) and 'Manual'. A 'User' field is also present.

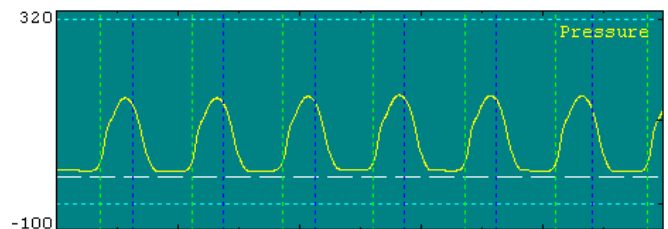
'Full range' is the maximum range that you would like to be measured in user values.
 'Calibration values' are two user values which reflects the calibration-voltages, generated by the instrument.
 'Voltage' are two values generated by the instrument.

The maximum voltage range that can be applied is from -5V to +5V. As an example, we will calibrate the pressure on 0 mmHg and 100 mmHg using a Sentron Pressure Interface. The CFL-512 will measure the voltages 0 en 1 Volt, as generated by the Sentron interface (0=steady, 1V=100 mmHg when right calibration button pressed). With these values it is possible to measure the pressure from -500 mmHg to 500 mmHg.



To optimise the resolution of the signal we have to decide on the full range we would like to measure for the pressure, e.g. -20 and 200 mmHg. The accuracy will increase with a factor 5.

Be sure that the signal will fit in the Full range. You can do a simple visual check. Check the value in box 'User' to see if the measured signal will exceed the full range.



In the plotwindow you will see a light blue dashed line when the full range value is displayed on the screen (the white dashed line is the zero line). If an external signal exceeds the value of full range the value 'clips' at the minimum or maximum value of full range (the signal will not exceed the dashed line). If the signal exceeds the full range extremely, the external signals may completely disappear from the screen.



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