

Knowledge Base Article

Product Group: Microlog Analyzer

Product: Microlog Analyzer – All models

Version: N/A

Abstract

SKF Microlog Analyzers are not capable of accepting a 4-20mA signal directly. This article provides a work around so that this can be achieved.

Overview

The 4-20mA signal can be routed through a 250Ω resistor to produce a 1-5Vdc voltage drop. The Microlog would then be able to read the voltage drop across this resistor.

A point could be configured in the Microlog or in SKF @ptitude Analyst to use an Offset value of 1000mV. The sensitivity would depend on what the 4-20mA (or 1-5Vdc in this case) was proportional to.

The 4-20mA or 1-5Vdc span would generally be proportional to some value span. For example, if the 4-20mA signal was proportional to a 30g value span, and a 250Ω resistor was used to convert the 4-20mA signal to a 1-5Vdc span, then the Input Sensitivity would be as follows:

$$\begin{aligned} 5\text{Vdc}-1\text{Vdc} &= 4\text{Vdc Span} \\ \text{Voltage Span}/30\text{G} &= .133 \text{ Vdc} \end{aligned}$$

So, in this case, the Input Sensitivity would be 133.33 mV/EU and the Zero Offset would be 1000mV (i.e. 1Vdc).

Based on the circumstances above, the Microlog measurement in SKF @ptitude Analyst could be set up as shown in Figures 1 and 2 below:

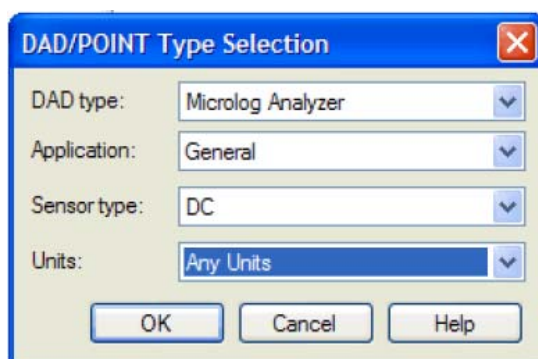


Figure 1. DAD/POINT Type Selection

- The **Any Units** field in the DAD/POINT Type Selection dialog can be changed to whatever value is desired in the POINT Properties dialog. This value has been changed to g's in this example.

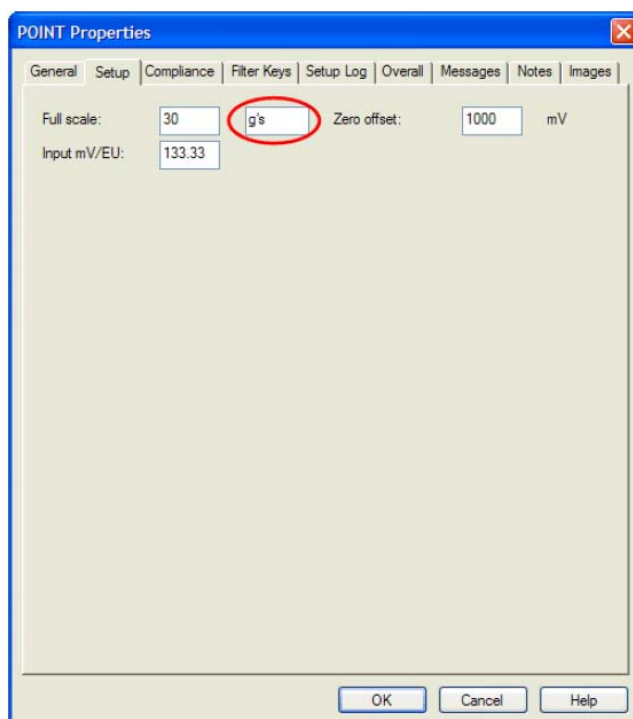


Figure 2. POINT Properties

For further assistance, please contact the Technical Support Group by phone at 1-800-523-7514 option 8, or by email at TSG-Americas@skf.com.