Signal Characterization

Introduction

Signal Characterization is a versatile function available on Yokogawa pressure transmitters. The function is used to compensate the 4 to 20 mA output for non-linear applications. Such applications include tank strapping or flow measurement; but, it can be used in any application where the relationship between the pressure input and the desired output are know.

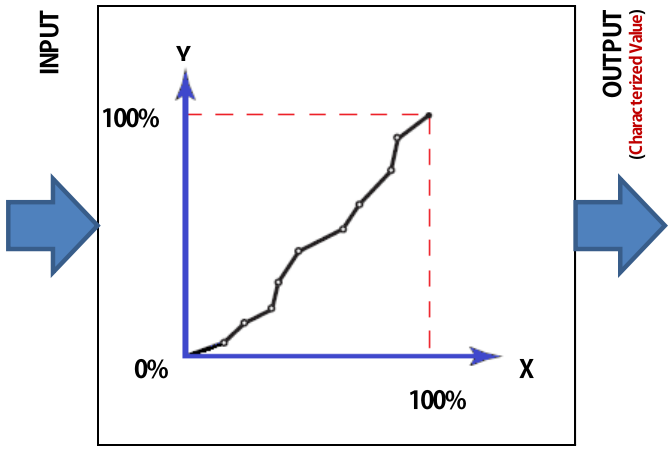

Figure 1: *Signal Characterization* FGP150-01.a

Applicable Models

> EJA-E Series: All models with HART 5, HART 7, or Brain Comm.
> EJX-A Series: All models (except the EJX910A and EJX930A) with HART 5, HART 7, or Brain Communication

Set up

For units with Hart 5 communication, the Signal Characterization is located under the Signal Condition section of the DTM. For Hart 7 units, Signal Characterization is sent up as a Hot Key.

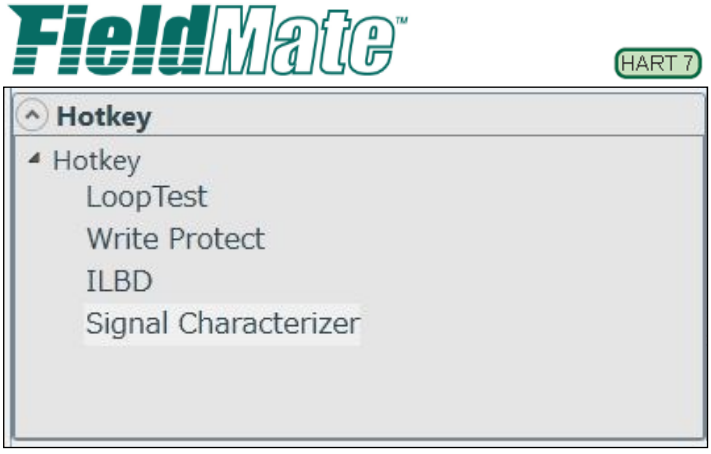

Figure 2: *HART 7 DTM Hotkey menu*

The Set-up
> Enabling the function
> Defining the number of points
> Setting the coordinates
> Download to Device

Enabling the Function: the Signal Characterization (SC) can be enabled using FieldMate.

Defining the number of points: Once the SC is enabled, the number of points you want to characterize needs to be defined. The number of points can be between 0 and 9.

Setting coordinates: A value for the input (X#) will be entered as well as the desired output (Y#). (# will correspond to the number of points selected above.)

Download to Device

See **Figure 3** (Page 2).

Although FieldMate is highlighted here, any Hart Communicator has access to these functions. Refer to the User's Manual for the HART menu tree.

BRAIN PROTOCOL

The feature described in this FieldGuide are also available for EJA-E and EJX-A transmitters with BRAIN Protocol communication. Please refer to the User's Manual for details.

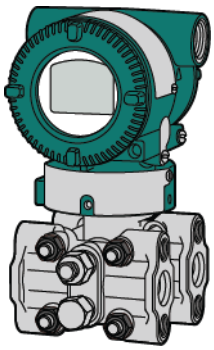

Figure 3: *Screen shot of the FieldMate DTM window for Signal Characterization (S.C.) setup.*