

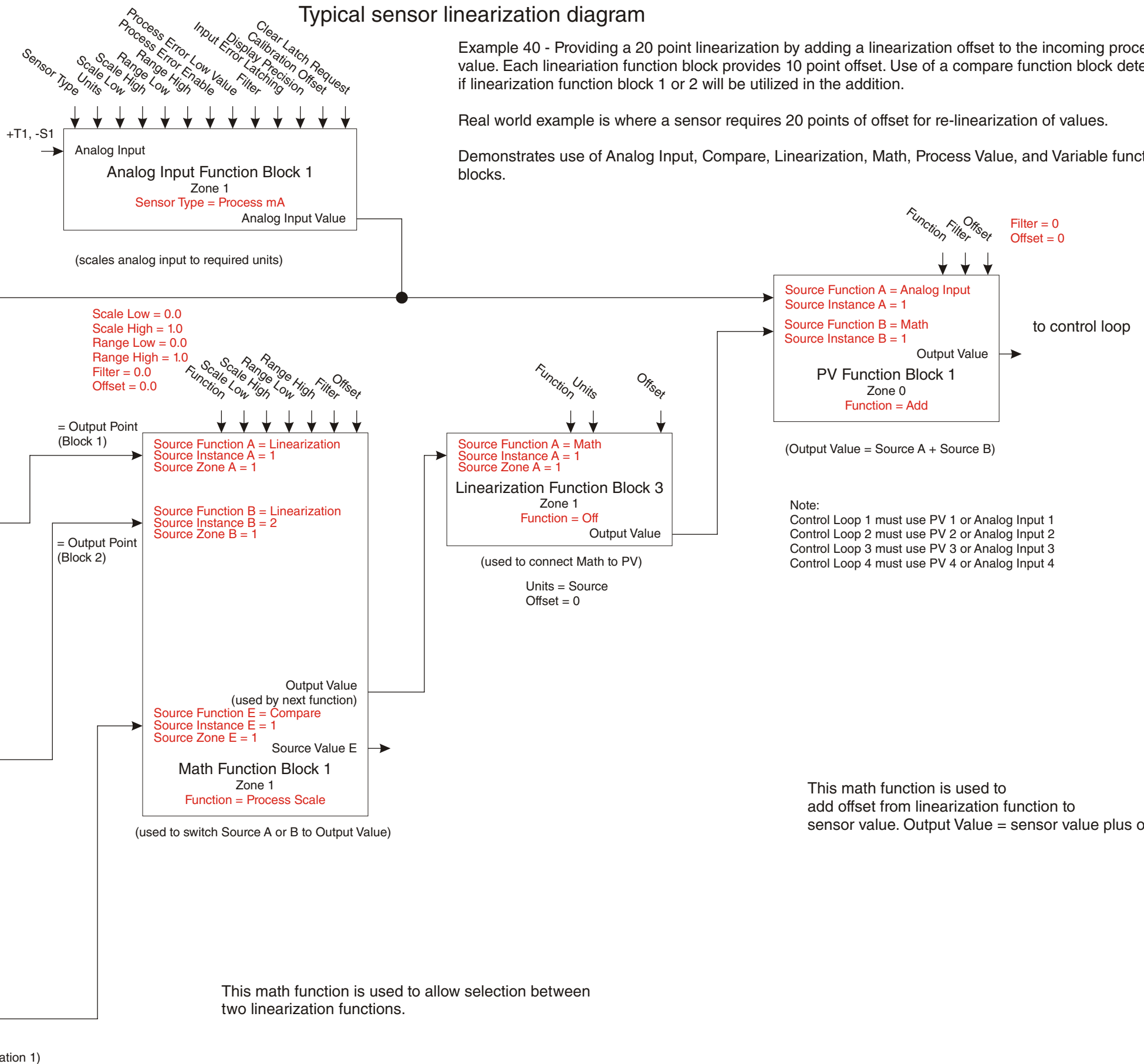
Typical sensor linearization diagram

Example 40 - Providing a 20 point linearization by adding a linearization offset to the incoming process value. Use of a compare function block determines if linearization function block 1 or 2 will be utilized in the addition.

Real world example is where a sensor requires 20 points of offset for re-linearization of values.

Demonstrates use of Analog Input, Compare, Linearization, Math, Process Value, and Variable function blocks.

Input is re-linearized based on value. compare function determines linearization block to use, Linearization determine amount of offset to send to math function.



Example

Input Point (absolute value)	Output Point (offset value)
10	0.01
20	0.02
30	-0.01
40	0.00
50	0.01
60	0.02
70	0.03
80	0.04
90	0.03
100	0.04
110	0.04
210	0.05
310	0.04
410	0.04
510	0.05
610	0.03
710	0.02
810	0.01
910	-0.01
1010	-0.02

Note:
 Control Loop 1 must use PV 1 or Analog Input 1
 Control Loop 2 must use PV 2 or Analog Input 2
 Control Loop 3 must use PV 3 or Analog Input 3
 Control Loop 4 must use PV 4 or Analog Input 4

This math function is used to add offset from linearization function to sensor value. Output Value = sensor value plus offset.

This math function is used to allow selection between two linearization functions.

Analog Value = number to compare switch linearization block 1 to 2
 Example : Analog Value = 105

