

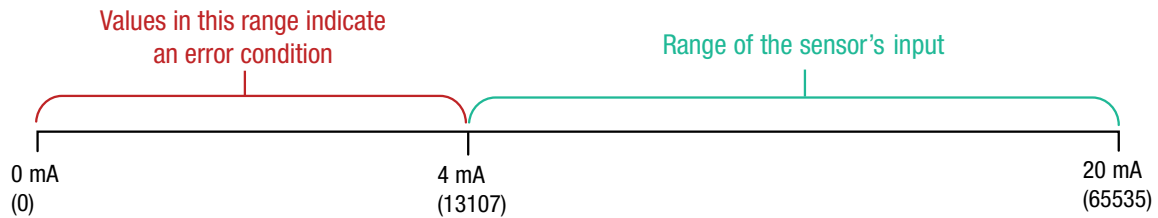
Using 4-20 mA Sensors with 0-20 mA Inputs



Using 4-20 mA Sensors with 0-20 mA Inputs

DX80 Sure Cross® devices allow analog inputs and outputs to use either 0-20 mA or 4-20 mA sensors. When using a 4-20 mA sensor with a 0-20 mA input, the sensor uses the 4-20 mA section of the total range.

Using a 4-20 mA with a 0-20 mA input allows you to determine when you have an error condition with the sensor. A normal input reading between 4 and 20 mA indicates a functioning sensor whereas a value below 4 mA indicates an error condition, such as a broken wire or loose connection.



If necessary, you can use the DIP switches within the devices to configure the analog inputs/outputs to use 4-20 mA.

Moving the DIP switch to use the 4-20 mA changes the 4 mA register contents from 13107 to 0. Converting the analog I/O to 4-20 mA removes the value range that could notify you of a physical problem with the sensor or wiring. Banner recommends using 0-20 mA analog I/O with 4-20 mA sensors to retain the ability to detect errors.