Sometimes it is required to generate a scaled 4-20mA Analog Output corresponding to a Modbus Register value in a Modbus device.

One specific application of a Modbus to 4-20mA Analog Output is in Electronic Flow Metering (EFM). A Multivariable Flow Transmitter (MVT) may not have an adequate number of Analog Output Channels for an application. In this case, the SCADALink DC100 can be configured to poll Modbus Registers in IEEE or Modicon Float format in the EFM and convert the register values to 4-20ma Analog Outputs available on the terminals of a connected AO 4 I/O module.

In the example below, 4-20 ma Outputs corresponding to Flow, Pressure, or Temperature may be required as inputs to another RTU, PLC, or DCS. The DC100 can communicate to Modbus Slave devices serially via Modbus RTU or alternatively via Ethernet using Modbus TCP, Modbus via UDP or Modbus via TCP.

![Diagram](image.png)

**Figure 1: Modbus to 4-20mA Analog Output using the DC100**