



Subject: Model 140 current loop output (4-20mA)

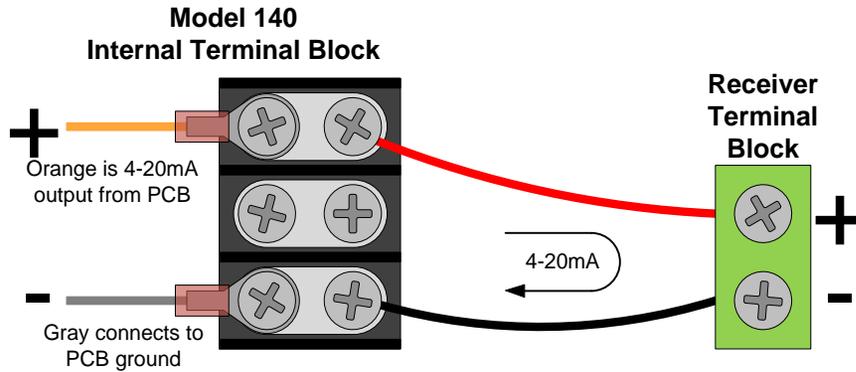
The 4-20mA transmitter is an isolated 2-wire device, which passes a current that varies in proportion to temperature. In the case of the 4-20mA option for the Model 140 temperature alarm, the output range is user-programmable within the available range of the device. The minimum and maximum output currents are user adjustable and calibration can be easily accomplished in the field with a calibrated voltmeter.

Since the transmitter is simply a current “valve,” it needs to have a power supply to provide the current source, and a receiver to convert the current to a value that can be interpreted by a data logging instrument or remote display. The wiring of three components must complete a loop for the current to flow.

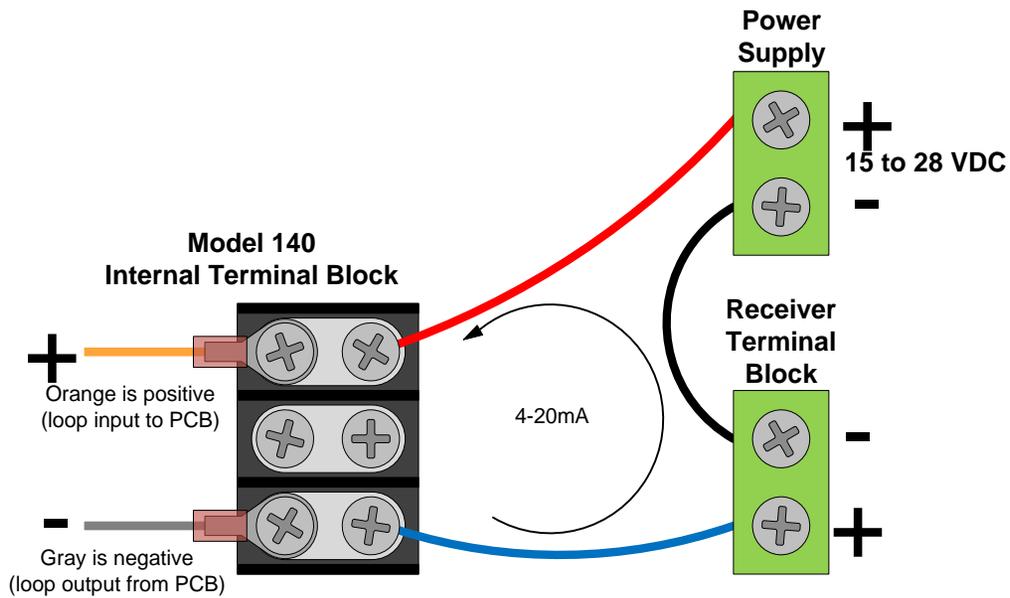
There are two factory configured connection options for powering the 4-20mA loop, **IRP** and **ISP**. The customer must specify which configuration is required. If not specified, the “receiver-powered” option (**IRP**), will be supplied.

Please note that the “self-powered” (**ISP**) option cannot be combined with the 9V battery-backup (**B**) option!

The following page shows a connection diagram for each of the configurations which may help in the selection of the appropriate option for your application.



ISP Option: Power supplied by Model 140 AC/DC adapter



IRP Option: Power supplied by external DC power supply