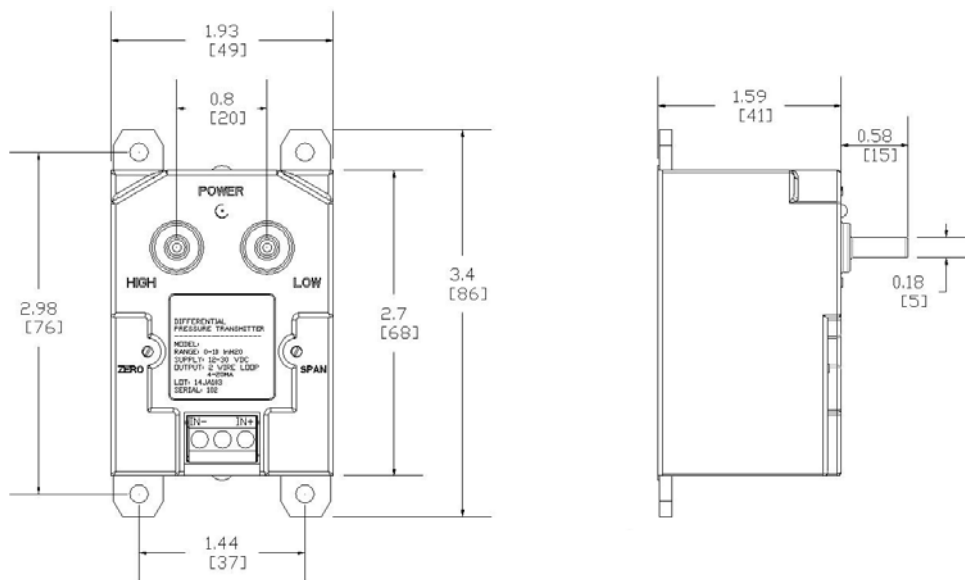


Installation Guide SA211 Series 4-20mA Wall Mounted Transmitter



1.0 General Information

The SA211 Series Transmitter senses differential pressure and converts this pressure to a proportional high level 4-20mA output. The transducer has been carefully calibrated before shipment to you and it should be handled with the same care given any precision instrument.



2.0 Installation

Media Compatibility

The SA211 transducer is designed to be used with clean dry air or non conducting gases. Use with liquid or corrosives gasses will damage the unit.

Environment

The operating temperature limits of the SA211 are -25 to +70°C (-4°F to +158°F)

Pressure Connection

DS-SA211

SA211 Series

The SA211 is supplied with two ports on the front side of the transducer and are marked "HIGH" and "LOW". Use 1/8 inch ID push on tubing to make pressure connections. Ensure that the proper pressure polarity is followed on Differential units by connecting the most positive pressure to "HIGH" connection of the transmitter. For Unidirectional units, leave the "LOW" port unconnected (Vented) and connect only the "HIGH" port.

Mechanical Connection

The SA211 is supplied with 4 mounting tabs for wall installation. Use standard dry wall anchors with screw diameter that are less than 3.5mm in diameter. Space dry wall anchors per the mechanical drawing above and screw the transmitter in place. Orientation of the sensor is not of concern since the MEMS based sensor has little position sensitivity.

Electrical Connection

The SA211 is supplied with 3 electrical terminals available for wiring. The middle center terminal should be NOT connected. A load resistor of 250 Ω is recommended for 24 Vdc systems with Figure 1 showing a typical electrical installation. Use a supply voltage between 8-30Vdc for proper operation and never exceed the 32Vdc maximum voltage. For systems requiring different load resistors, ensure the load resistor is within green area for your specified supply voltage (See Figure 2.)

Figure 1—24Vdc, 250 Ω System

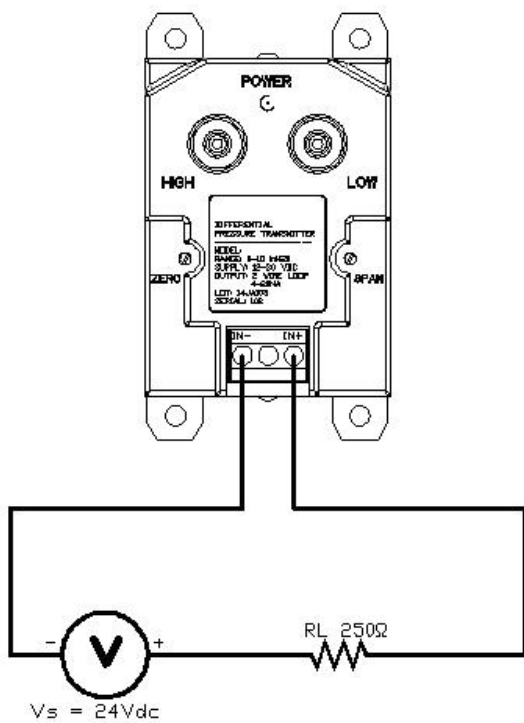
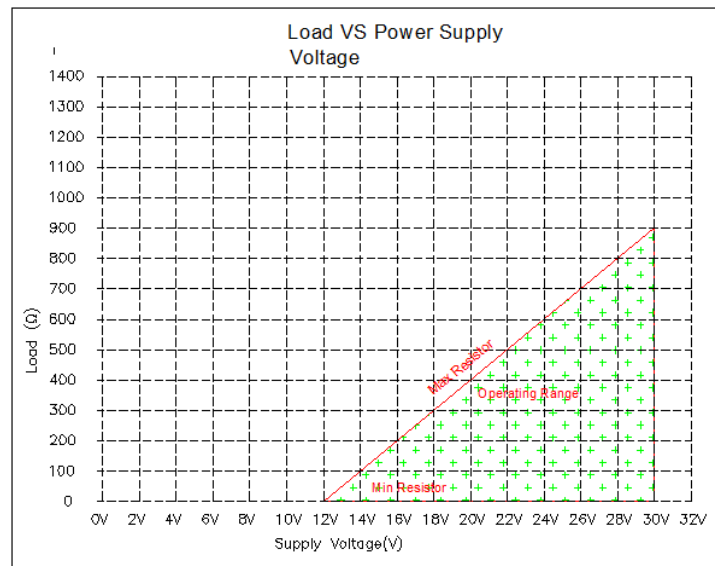


Figure 2—R_{Load} Vs Supply Voltage Chart



Periodic Calibration

The SA211 is factory calibrated and may require period field adjustment. Two potentiometers are located on the front panel for this purpose. To adjust the “ZERO” 4mA output, remove all pressure connections to both the “HIGH” and “LOW” ports and adjust the potentiometer until the output reads a value of 4mA. To adjust the Full Scale reading, re-connect the “LOW” pressure port and apply the Full Scale pressure to the “HIGH” port adjusting the potentiometer until 20mA is indicated across the load resistor.

Ordering Guide

