## API-Cecomp Group n'fo

## Technical & Application Note A143

Application: Split signals for separate monitoring and control

Type of Company: Pharmaceutical Manufacturer

Location: Illinois

<u>Problem</u>: The company is using the Emerson Process (formerly Fisher/Rosemount) Delta V automation management system to control the plant manufacturing system. The HVAC engineers want to separately monitor differential pressure, relative humidity and temperature in the clean rooms but the Delta V system also needs to monitor these signals to maintain product compliance and archive FDA validation. The company cannot add another set of sensors.

**Solution:** API furnished the customer an APD 4393. The APD 4393 accepts the 4-20 mA signal from each sensor and provides two optically isolated outputs that are linearly related to the inputs. The input signal is filtered, amplified, split, and then passed through an opto-coupler to the output stage. The two isolated output channels provide an economical solution where more than one output device needs to be connected to the same input signal.

