

## Hydrocarbon Gas Streams

- Application** Moisture monitoring in process hydrocarbon gas streams.
- Problem** Hydrocarbon gas streams such as ethylene and propylene are used in the production of most man-made plastics. Excessive moisture in these plastics can lead to imperfections in the finished products as well as decreased strength of the plastics. Therefore, these gases must be kept dry during transport and processing. Like carbon dioxide, these gases will cool greatly with a drop in pressure, and excessive moisture can condense out during the expansion process.
- Solution** Continuous monitoring of hydrocarbon streams to catch excessive moisture before it is sent to a processing plant. Measurements are very low under normal conditions, typically in the range of 0-10 PPMv. Portable monitors can also be used, especially during the purging and filling of rail cars and tankers.
- Equipment** Any in-line instrument will work for this application. Either explosion-proof housings or intrinsically safe operation will be required. The instrument should be scaled to 0-10 PPMv for most applications. The model 6020 would be an ideal choice with its programmable features. An intrinsically safe portable instrument would be a good option if the application does not warrant continuous monitoring.
- Advantages** All Delta low range sensors are very responsive in the 0-10 PPMv measurement area, and will pick up a wet-up condition rapidly..