**Phase Separator Water Level Control**

**PROBLEM**
A phase separator is equipped with 2 pressure sensors, one located above the water level and one below. During operation the maximum pressure differential is 10%. It is necessary to maintain the water level so that there is a 1% pressure differential between the sensors.

**SOLUTION**
Use an API 4408 G A-B Math Function module to obtain the pressure differential between the transmitters. With a pressure differential of 0-10%, the output of the API 4408 G will be 4-5.6 mA. Expand the 4-5.6 mA signal to 4-20 mA with an API 4300 G Isolated DC to DC Transmitter module for better resolution and control.

Use the output of the API 4300G to drive an API 1000 G DC Input Single Alarm Trip module to provide a relay contact closure to operate a water removal pump. Adjust the setpoint of the API 1000 G to maintain the differential pressure at 1%. The second set of isolated relay output contacts can be wired to an annunciator panel or other monitoring system as desired. The standard heavy-duty relay contacts are rated 7A @ 240VAC (resistive) and can directly control most devices.

**Did You Know...?**
Api isolated transmitters have 2000 VRMS input, output, and power isolation.

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**FREE APPLICATION ASSISTANCE**
Call Customer Service
800-942-0315

Rev 04/02  APIAN222  P-7