

FISCALLY PROTECTED INTERNAL GAS DELIVERY IN CHEMICAL PARKS

Task

Chemical industry processes produce process gases that, depending on their composition and whether or not there is a demand for them, are disposed of as waste or can or should be used as an energy source or raw material. This is the case in particular in industrial parks where the principle of an economical interconnected operation includes the supply and use of combustible gases among different areas, such as between a chemical plant and a gas-fired power plant. For fiscally correct accounting between the areas, the supplied energy quantity and, if necessary, the composition of the gases must be determined on a continuous basis.

Solution

UNION Instruments uses its continuously operating EMS2005 energy quantity measurement system, which is approved for fiscal measurements, for this application. It consists of a calorimeter of the proven CWD2005 series with additional moisture sensor, gas quantity meter, and calibrated energy converter. The measured value that is extracted in an intrinsically-safe manner across an explosion-protection barrier corresponds to the energy quantity delivered in each case. If required, a gas analyzer from the INCA device series can also be used.

User Benefit

The measurement technology shown enables owners of integrated plants to supply each other with process gases on a fiscally explicit basis. This is a critical requirement for an energy-efficient, economical integrated system and contributes to energy saving and cost reduction.



