



SpartanPRO™ Hydrogen Blending

Spartan's **complete solution** for
hydrogen blending and **measurement**
in natural gas distribution.

Implementing New Green Technologies

REDUCING EMISSIONS

Governments and utilities worldwide are seeking to reduce their carbon footprint by implementing new green technologies and utilizing more efficient designs. Emissions associated with burning of fossil fuels can be reduced by injecting hydrogen directly into a natural gas distribution system, displacing existing fossil fuel consumption. When implemented at relatively low concentrations, less than 5%–15% hydrogen by volume, utilities can transition without

significantly increasing risks associated with utilization of the gas blend in end-use devices (such as household appliances), overall public safety, or the durability and integrity of the existing natural gas pipeline network. Spartan's turnkey hydrogen blending solution offers suppliers the confidence to accurately blend hydrogen into their existing natural gas pipeline network with minimal effort or expense.



The SpartanPRO™ Hydrogen Blending Solution

Key Features

FEATURES AND BENEFITS

- Downstream measurement of hydrogen concentration to control and confirm blending ratio
- Continuously modulating injection system
- Control panel for closed-loop control of the injection based on confirmation from the analyzer
- Automatic alarm and shutdown if analyzed sample is out of tolerance
- Flow computer/controller with injection data history (e.g., injected amount from previous hour/day/month) and alarm history
- Options include remote communications/alarming, DCS integration, and analyzer composition feedback
- Simple to install injection point
- Precise injection measurement using a Coriolis meter
- Smart meter verification technology within the coriolis meter allows for advanced flow meter diagnostics and reliability of flow measurements



MODEL PREDICTIVE CONTROL

- Allows the solution to respond quickly to changing process conditions



GAS COMPOSITION CONFIRMATION

- Gas analyzer allows for feedback control & confidence in outlet composition



MULTIPLE H₂ & NG TRAINS FOR IMPROVED TURNDOWN RATIO

- Ensures accuracy across a wide range of operating conditions



INTEGRAL HYDROGEN FIRE & GAS DETECTION

- Built-in hydrogen flame and gas detection for increased safety



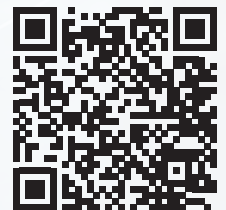
SCALABLE SOLUTION

- Can accommodate a wide range of required hydrogen and natural gas flow rates

Operating Temperature	<ul style="list-style-type: none"> -40°C to 40°C
Communication	<ul style="list-style-type: none"> Analog and discrete Inputs available Digital communication available through Modbus RTU, RS485, Ethernet IP
GC Measurement Resolution	<ul style="list-style-type: none"> 5-minute intervals
Area Classification	<ul style="list-style-type: none"> cETLus Class 1 Zone/Div 2 Groups B,C,D for use in Canada and USA
Code of Instruction	<ul style="list-style-type: none"> CSA Z662 USA Systems conform with B31.8 for gas distribution piping ASME B31.12

Call us or request a quote online 24/7

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