

ABB MEASUREMENT & ANALYTICS | APPLICATION DESCRIPTION

Gas nomination XSeries and *X*core applications



The nomination of natural gas (delivery of a specified volume over a defined period of time) is often a requirement for gas sales.

Measurement made easy

01 Totalflow applications can be used with etiher a Totalflow XSeries device, or a Totalflow *X*CORE device.

Automation objective

The nomination of natural gas (delivery of a specified volume over a defined period of time) is often a requirement for gas sales. Over deliveries and under deliveries usually invoke contract penalties and a loss of revenue. It is possible to achieve exact nomination deliveries when accurate flow measurement and reliable valve control are combined.

Automation solution

The Totalflow XSeries flow computers, XSeries remote controllers, and XCORE remote controllers are available with a Nomination Application. The Nomination Application continuously inputs set points to the Totalflow Valve Control Application to position the control valve to maintain a flow rate that will result in delivery of the nominated volume.

If flow is interrupted for any reason (a compressor goes off line or a delivery station must be shut-in), the Nomination Application will automatically operate to make up the nomination loss when flow resumes. Additionally, an override function can be selected which will limit a secondary parameter to a user defined limit.

For example, while primarily maintaining flow rate, a pressure override can be used to ensure pressure entering a pipeline system. At a wellhead this same scheme can be used to shut-in/bring-on flow based on a compressor on-off state. Three nomination volume periods can be viewed: Last, Current or Next. All nomination control functions, as well as nomination volumes can be accessed locally with Totalflow PCCU software or remotely with Totalflow WinCCU software or SCADAvantage™. The valve controller has the option to be used with a digital valve actuator or an analog valve actuator.

Recommended equipment

Qty 1 – XSeries FCU/RTU or XCORE RTU with solar panel Qty 1 – PCCU Laptop communication software

Options – Radio for remote communications; WinCCU remote host software

Solution benefits

Nominations made, revenues maximized

Nomination control insures that all of the contracted volume is delivered.

Safe environment

Control override prevents unsafe delivery of pressures and flow rates into the gas system.

Easy installation

Mount XSeries/*X*_{CORE}; connect solar panel; connect wiring to sales valve.

Simple start-up

Enter initialization requirements with PCCU software or WinCCU software or SCADAvantage™.

Low power electronics

Helps extend battery life, reduces maintenance expense, allows for more run time.

Extendable

Any XSeries/XCORE product can also provide flow measurement, alarming, data logging, level measurement, remote communications, and plunger optimization while performing nomination control.

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