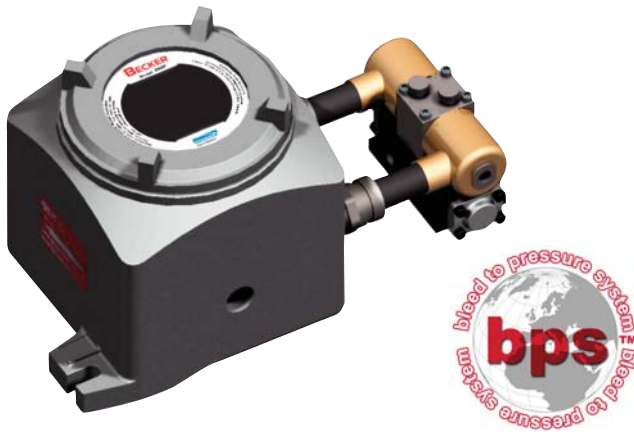


## DNGP Digital Natural Gas Positioner

### DNGP Digital Natural Gas Positioner Features ZERO Bleed Technology and Control Logic Designed for Natural Gas Control Valves

#### Becker Digital Natural Gas Positioner

The DNGP Series is used with pneumatically actuated natural gas control valves to provide an accurate valve stem position that is proportional to the electronic command input signal received from an electronic controller. The DNGP is compatible with all Becker actuators and may be retrofit to other manufacturer's control valve packages as well. The DNGP eliminates the need for an I/P transducer and features ZERO bleed consumption at steady state. Additionally, the DNGP features easy, menu driven setup along with PC interfaced diagnostic and setup features. Most importantly, the DNGP offers multiple fail safe modes to protect your gas pipeline. The DNGP also features high volume and high pressure capabilities that enable use on large volume pneumatic actuators.



**Figure 1.0** - DNGP Series Digital Natural Gas Positioner

The DNGP provides accurate control valve positioning with zero steady state bleed gas. Additionally, the DNGP accepts an electronic input signal direct without the need for an I/P transducer. With its simple menu setup and flexible configurations, it's the ideal control valve positioner for today's natural regulation facilities.

#### DNGP Applications

- Pressure control
- Flow control
- Power plant type pressure control
- Power plant type flow control

#### Compatible Actuators

- RPDA Series
- RPSR Series
- SYDA Series
- SYSR Series
- LPDA Series
- LPSR Series
- LD Series
- Type 33 (V-Max) Series
- Other manufacturer's actuators (contact Becker for assistance)

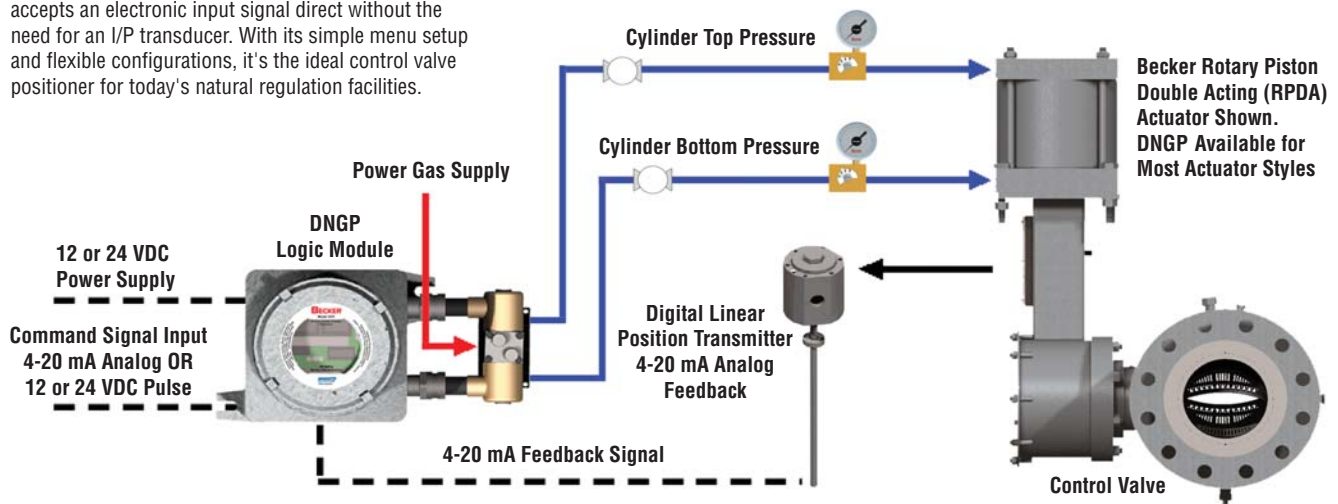
#### Installation Guidelines

##### Solenoid Valve Installation

The solenoid valve is the only portion of the DNGP Positioner that contains gas pressure. As a result, the solenoid valve must be installed on or nearby to the control valve actuator.

##### Logic Board Installation

Since the DNGP logic board only incorporates electrical connectivity, the logic board may be remote mounted inside the RTU cabinet with only the wiring going to the solenoid valve. For actuator or hazardous installations, the logic board is mounted inside an explosion proof box with the solenoid valve factory installed.



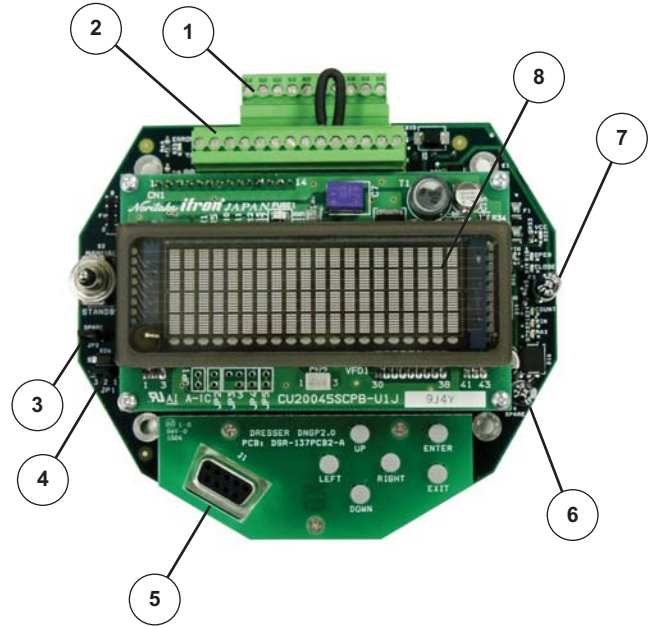
**Figure 2.0** - DNGP Series Digital Natural Gas Positioner

Becker Model DNGP Electro-Pneumatic Positioners feature ZERO bleed technology. The DNGP eliminates the need for an I/P transducer and may be configured to lock the control valve in last position if the electronic command input signal is lost. The DNGP is compatible with all Becker control valve actuators. The DNGP package represents a true plug & play positioner. It's easily configurable for any control valve actuator, application logic via menu selections, or tubing config.

The Becker DNGP Digital Natural Gas Positioner is specifically designed for today's sophisticated natural gas control valve applications that utilize electronic communication.

Table 1.0 - DNGP Adjustment and Logic Board Features

Item	DNGP Wiring Diagrams & Logic Board Layout
1	Terminal Board #1 (10 Connections) - Factory Install
2	Terminal Board #2 (14 Connections) - Customers
3	JP2-Jumper, Spare
4	JP1-Jumper (1,2 No Ext. Power) (2,3 Needs Ext. Power)
5	Com Port - 9 Pin
6	Spare Fuse - 3A
7	PTC Fuse for 3A - Input Power
8	Vacuum Florescent Display



### DNGP Features

- Zero steady state bleed gas
- Atmospheric bleed gas may be completely eliminated by using BPS™ Bleed to Pressure System.
- May accept 4-20 mA analog or 12 or 24 VDC discrete positioning signal without need for I/P transducer.
- Explosion Proof design may be installed in hazardous locations such as natural gas regulating stations.
- NEMA Rating: Explosion Proof for Class I, Groups C and D; Class II, Groups E, F, G; and Class III hazardous locations.
- CSA approved
- High volume and high pressure flow capabilities allow DNGP to be utilized on large volume actuators without need for volume or pressure boosters.
- Logic board also available for installation within RTU cabinet in order to save on installation costs
- Failure of input signal may be configured to:
  1. Lock control valve in last position
  2. Stroke to full-open control valve position
  3. Stroke to full-open control valve position
- Becker VRP-Pilots may be incorporated in conjunction with DNGP to provide completely pneumatic overpressure protection (Pressure Control Override).
- Compatible with most pneumatic control valves and most control valve actuators.
- May be easily retrofit to other manufacturer's control valves.
- May be easily retrofit to existing pneumatic actuators to convert automated valve (on-off) into control valve (throttling).
- May be menu configured for split range control to allow staging of multiple parallel control valve runs. Highly versatile setup allows multiple input signal ranges.
- Standby mode allows for manual local positioning of control valve via menu navigation buttons.
- Used in conjunction with MCV-3 Manual Control Valve allows for manual local positioning of control valve without electrical power.
- Spare 3A power fuse and spare jumper located on board.
- Diagnostic Solenoid Cycle Counter provides exact maintenance scheduling capabilities at site or remotely.
- Can provide remote indication of operational mode status (automatic, manual, or standby).
- Fault indicating LED provides easy troubleshooting diagnostics.
- Multi-line illuminated display is easy to read and informative.
- Serial port interface allows local communication and simple future software upgrades as they become available.
- "Learning" model allows simple calibration and automates input of optimal parameters.
- Low power consumption mode allows reduced current draw from standby valves reducing the workload on solar powered systems and battery backups.
- Hi/Low electronic position limit switches integrated to DNGP offer simple and flexible setup.

**The Becker DNGP Digital Natural Gas Positioner Features a Simple and Reliable Design Ideal for Rugged, and environmentally-friendly Natural Gas Pipeline Applications**



Figure 4.0 - Model DNGP Assembly Electrical and Pneumatic Connections

Table 2.0 - Model DNGP-2 Assembly Electrical and Pneumatic Connections

Item	DNGP Connections	Type	Port
A	DNGP Customer Wiring Connections	Electrical	3/4" FNPT
B	DNGP Solenoid Valve Wiring (Factory Installed)	Electrical	1/2" FNPT
C	Power Supply Gas	Pneumatic	1/4" FNPT
D	Cylinder Output #1	Pneumatic	1/4" FNPT
E	Cylinder Output #2	Pneumatic	1/4" FNPT
F	Exhaust (Discharge)	Pneumatic	1/4" FNPT

**Notes**

DNGP Configuration Shown is for Standard Double Acting Unit. For Single Acting Units and Low Pressure Power Supply Gas Units, consult Becker for connection information

**How it Works**

DNGP configuration shown is double-acting - DNGP sends pressure to both sides of control valve actuator. As one side of the actuator cylinder is pressurized, the other side of the cylinder is exhausted. The energy to operate the control valve is obtained from the differential between supply gas pressure and discharge gas pressure. An electrical signal is supplied to the DNGP from an RTU and an electrical position feedback signal is supplied by a position transmitter. The DNGP controls a spring-centered dual-coil solenoid valve. When the input signal matches the feedback signal with a specified "deadband", the DNGP does not energize either solenoid. The solenoid valve remains in the center position trapping the pressure in both sides of the cylinder. The valve remains in a steady state position with zero bleed. A change in input signal causes the

DNGP to energize the opening or closing solenoid depending on positioner action to move the actuator in the respective direction. The DNGP energizes the solenoid valve until the feedback signal matches the input signal and a steady state condition is once again achieved. The "deadband" in which the actuator remains in steady state is adjustable from 0 to 2% of valve position. The DNGP can be placed into "Learning" mode to allow automatic selection of the optimal deadband value to maximize control accuracy and prevent overshoot. The failure position of the DNGP is independent of the positioner action. The DNGP can cause the control valve to fail open, fail closed, or remain in last position on loss of the input signal regardless if the DNGP is open on increasing signal or close on increasing signal.

Figure 5.0 - Model DNGP Configured with Becker LD Series Actuator and Globe Control Valve

The Model DNGP Positioner is shown configured here with a Becker LD Series Linear Diaphragm Actuator and a Model 41000 Series Globe Control Valve. This configuration of the DNGP utilizes a solenoid valve system specifically designed for low Power Supply Gas pressures of 40 psig (276 kPa) or less. This type of DNGP configuration is also compatible with Type 33 Rotary Spring & Diaphragm Actuators incorporated with the Paramax Control Valve. Also note that the DNGP is available for easy retrofit on other manufacturer's low pressure spring & diaphragm type actuators. DNGP Logic Module.

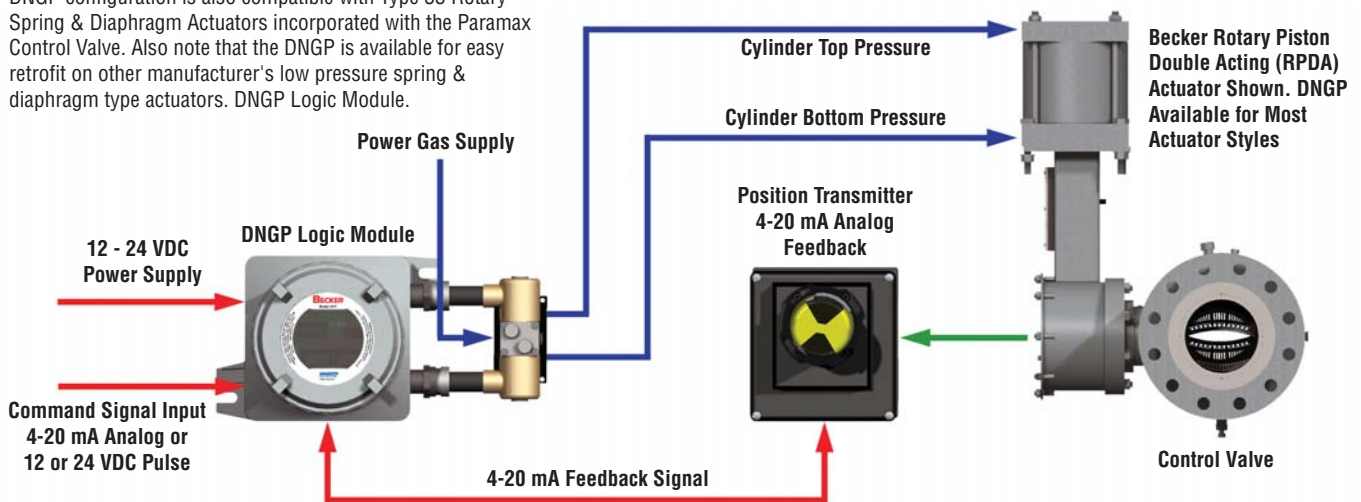


Table 3.0 – DNGP-2 Technical Specifications

Technical Specifications	
<b>Electrical Power Requirements</b>	12 to 30 VDC, 1 to 2 Amps including DNGP heater and transmitter heater (3 Amp line fuse recommended)
<b>Over Current Protection</b>	20 Joule, 2000 Amp surge and lightning transient protection 3 Amp fuse for Logic module 24VDC power
<b>Position Input Signal (Selectable) Standard</b>	4-20 mA (Split range: menu selectable and adjustable - min 4 mA signal range) Transmitter Feedback Signal: 4-20 mA Analog (available for feedback to RTU) Internal or external loop power (selectable)
<b>Cycle Counter Feedback Signal</b>	Single Terminal +24 Volts (150 mA maximum current) when either solenoid is energized Valve Position Feedback Module: Westlock Brand Standard (Rotary Type), Linear Type and Alternate Rotary Types Available. Consult Becker for additional information
<b>Display</b>	Input Mode Selection: Auto/Manual/Standby
<b>Electrical Manual Override</b>	Manual Positioning via raise/lower keys (must engage Manual Mode with Auto/Manual/Standby Switch)
<b>Pneumatic Manual Override</b>	Knurled knobs on AAA brand DNGP Solenoid Valve
<b>Loss of Signal Options</b>	Drive to 4.0 mA position (open or closed valve position) Drive to 20 mA position (open or closed valve position) Lock in last position
<b>Input and Transmitter Signal Impedance</b>	100 to 200 ohms
<b>Maximum Power Supply Gas Pressure</b>	250 psig (1724 kPa) with AAA brand DNGP Solenoid Valve (Check Maximum Actuator Power Supply Pressure Limitations) 40 Psig (276 kPa) with Asco brand DNGP Solenoid Valve (Check Maximum Actuator Power Supply Pressure Limitations).
<b>Pneumatic Port Connections</b>	1/4" FNPT standard, larger sizes available for additional capacity
<b>Electrical Conduit Connections</b>	3/4" FNPT standard
<b>Input Signal Action</b>	Direct or Reverse acting (menu selectable)
<b>Pneumatic Action</b>	Double Acting or Single Acting
<b>Deadband</b>	Adjustable from 0.1% to 2.0% of full travel
<b>Hysteresis</b>	<1.0% full scale (with standard Rotary Position Feedback Module)
<b>Linearity</b>	<±1.0% full scale (with standard Rotary Position Feedback Module)
<b>Repeatability</b>	<±0.3% full scale (with standard Rotary Position Feedback Module)
<b>Operating Temperature</b>	-20°F to 120°F (-29°C to 49°C)
<b>Influence of temp. on valve position</b>	<0.01% per °F (<0.02% per °C)
<b>Steady State Gas Consumption</b>	ZERO - See Table 2.0 for additional information
<b>Supply Regulator Capacity</b>	100 SCFM at 250 psig (1724 kPa), 45 SCFM at 100 psig (689 kPa) , 30 SCFM at 60 psig (414 kPa) - Natural Gas
<b>Electrical Classifications</b>	Electrical Enclosure Explosion Proof for Class I, Groups C and D; Class II, Groups E, F, G; and Class III hazardous locations. CSA approved. Available without enclosure for control room placement of logic board
<b>Approximate Weight</b>	15 Lbs. (5.6 kg) includes standard explosion proof DNGP enclosure and AAA brand DNGP Solenoid Valve.

Model DNGP Spare Parts	
DNGP AAA Solenoid Valve Replacement Pneumatic Module*	Part Number 20-4506
DNGP AAA Replacement Solenoid Electrical Coil*	Part Number 20-4509
DNGP AAA Replacement Solenoid Valve Complete Assembly	Part Number 20-4500 (std) 20-4502 (Marine Environment)
DNGP ASCO Replacement Solenoid Valve Power Gas. Complete Assembly (for less than 40 psig (276 kPa)	Part Number 20-4202
DNGP 3.0 A (Input Power) Replacement Fuse	Part Number 31-9002
DNGP Replacement Logic Board	Part Number 31-XXXX

**Note**

\*Recommended Spares should be maintained in stock by customer



**Table 4.0 - Bleed Rates (consumption) for Becker Control Instruments**

Becker control instrumentation features low bleed and zero bleed technologies to minimize fugitive natural gas emissions and any environmental impact.

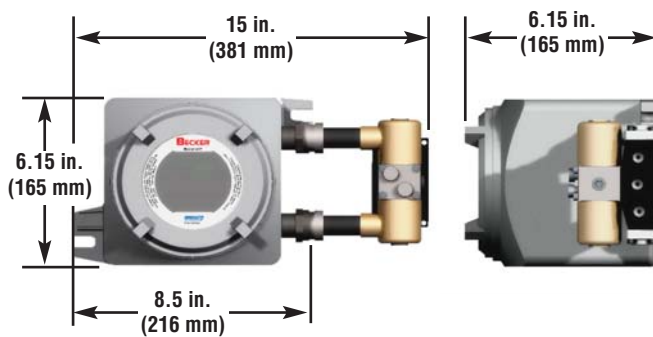
	VRP-CH Pilot	VRP-B-CH Pilot	VRP-SB-CH Pilot	VRP-SB-PID Pilot	HPP-4 Positioner	HPP-5 Positioner	HPP-SB Positioner	DNGP Positioner
<b>Bleed Rates (Consumption)</b>								
<b>Steady State Bleed* Non-Bleed</b>	~100	<10	zero	zero	~100	<10	zero	zero
<b>Full-Open/Full Closed Bleed to Pressure</b>	Y <sub>1</sub>	Y <sub>2</sub>	Y	Y	Y <sub>1</sub>	Y <sub>2</sub>	Y	Y
<b>Bleed to Pressure System (BPS™) †</b>	Y	Y	Y	Y	Y	Y	Y	Y

**Notes**

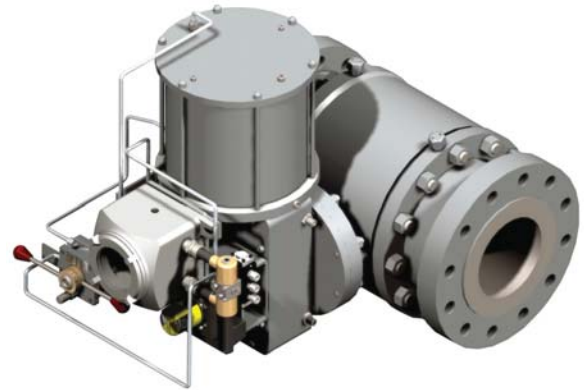
\* Bleed rates are estimated utilizing Supply Gas Pressure=100 psig (690 kPa) and are reliant upon process activity. All bleed rates are reported in standard cubic feet per hour (scfh).

1. Requires Model PS-2 or NBV Non-Bleed Device to eliminate bleed when control valve is in full-open or full-closed position
2. Requires Model DPS-2 or NBV Non-Bleed Device to eliminate bleed when control valve is in full-open or full-closed position

† Bleed to Pressure System (BPS™) eliminates all atmospheric bleed emission by containing bleed gas within piping system.



**Figure 6.0 - DNGP Digital Natural Gas Positioner with AAA Brand Solenoid Valve for Standard Double Acting Application.**



**Figure 7.0 - DNGP Installed on Model SYDA Actuator**

The Becker DNGP is compatible with all Becker control valve actuators and control valve combinations. The DNGP is shown here mounted on a Becker SYDA Scotch Yoke Double Acting Actuator configured for electronic flow control purposes. The DNGP is versatile enough to accept a wide range of power supply gas up to 250 psig (1724 kPa) and accommodate any size actuator without the need for volume boosters or pressure boosters. All this is combined in a purpose built electro-pneumatic positioner designed for positioning of natural gas control valves.



**Figure 8.0 - Becker Flow Control Valve and Monitor**

(Overpressure) Control Valves. An Indiana-based energy company installed an DNGP Positioner on a Flow Control Valve (right). The DNGP provides volumetric flow control via a 4-20 mA analog command signal. The DNGP is configured to lock in last position upon loss of command signal and/or power supply. The Monitor (overpressure) Control Valve (left) is equipped with a VRP-Pilot to limit downstream pressure in the event that the flow control valve fails. The Monitor features a reliable, self-contained system which does not require an outside power source.

**Improve Performance and Reliability while Reducing Bleed Gas Emissions with DNGP Digital Natural Gas Positioner**

Optimum performance is achieved by pairing a DNGP positioner with original Becker Precision Equipment Control Valves and Control Valve Actuators. However, If you already have existing control valve actuators in service with older, obsolete pneumatic positioners, the addition of a DNGP Positioner can improve performance; reduce maintenance; and minimize bleed gas emissions. Additionally, the DNGP can eliminate the need for an I/P Transducer and provide safety features that aren't found in other manufacturer's positioner systems. Becker DNGP Positioners are compatible to retrofit many manufacturer's valve actuators. Existing on-off automated valves with pneumatic valve actuators may be easily converted into a regulating control valve with the addition of a Becker Model DNGP. Consult Becker Precision Equipment for more information.

**Becker Model DNGP Digital Natural Gas Positioners are compatible for retrofit with the following:**

- Fisher Type 470/480™ Piston Actuators
- Fisher Type 1061™ Rotary Piston Actuators
- Fisher Type 1051/1052™ Rotary Spring & Diaphragm Actuators
- Fisher Type 657/667™ Linear Spring & Diaphragm Actuators
- Flowserve, Valtek, Ledeen, Bettis, Rotork, Biffi and other manufacturer's pneumatic valve actuators.\*

\*Contact Becker or your local Becker Sales Representative for assistance.



**Figure 9.0** - Becker Model DNGP Electro-Pneumatic Positioner on Large Bore Ball Type Control Valves

A Mid-California based Natural Gas Distribution company utilized Becker Model DNGP Digital Natural Gas Positioners on these large control valves to provide simple and cost effective control instrumentation installation. The DNGP's show here are installed on Becker RPDA Rotary Piston Double Acting Actuators on 24 inch bore Model FPCV-T0 Full Port Control Valves. The DNGP exhibits high flow capacity and high pressure capacity to eliminate the need for volume/pressure boosters. With fugitive emissions being a vital concern in California, the DNGP was also chosen due to its ZERO steady state bleed capabilities. Control valve configuration shown here incorporates an upstream monitor (overpressure protection) and downstream pressure control valve.



**Figure 10.1** - Conversion of Existing On-Off Actuated Valve to Automated Flow Control (Before)

A Southern California based Natural Gas Distribution company retrofit existing pneumatic valve actuators with a Model DNGP Digital Natural Gas Positioner in order to provide remote regulation capabilities. The original pneumatic actuator was originally intended for on-off service. With the addition of the DNGP, the customer was able to incorporate a flow control valve in the pipeline system with minimal expense. The photograph above shows the pneumatic valve actuator prior to retrofit with DNGP.



**Figure 10.2** - Conversion of Existing On-Off Actuated Valve to Automated Flow Control (After)

The photo above shows the same pneumatic valve actuators and buried ball valve after retrofit with a Model DNGP Digital Natural Gas Positioner. The retrofit of the DNGP to the existing actuator was performed with minimal resources. The customer provided dimensional information on the existing actuators and received all DNGP components ready to mount. The Rotary Valve Position Feedback Transmitter was the only component that required a mechanical coupling to the actuator. The DNGP Logic Module and the DNGP Solenoid Valve were coupled to the actuator via stainless steel pneumatic tubing connection. The DNGP represents the ultimate in simplicity, ease of retrofit, cost of installation and environmental benefits for installation on such large control valve applications.

**DNGP Series Positioner Accessories**

**Realize Optimum Performance of your DNGP Series Electro-Pneumatic Positioner with these popular accessories!**



**Rotary Valve Position Feedback Transmitter (Standard)**

Valve Position Feedback is communicated to the DNGP Logic Module by an electronic Valve Position Transmitter. Standard issue Valve Position Feedback is a Rotary Type Westlock Brand unit. The Rotary Valve Position Feedback Transmitter is available with valve status limit switches in a variety of configurations to suit your needs. All Becker Valve Position Transmitters are rated Explosion Proof for use in hazardous locations. *The DNGP does require a Valve Position Feedback Transmitter in order to function.*

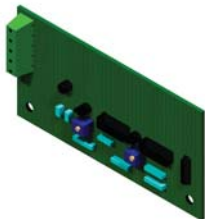
- |                     |  |              |                           |
|---------------------|--|--------------|---------------------------|
| <b>Transmitter:</b> | 4-20 MA Output, Loop Powered                         | <b>SPDT:</b> | Single Pole, Double Throw |
| <b>Housing:</b>     | NEMA 7, 4, 4X, Class I, Groups C & D, Division 1 & 2 | <b>DPDT:</b> | Double Pole, Double Throw |
| <b>Switches:</b>    | 2 or 4   |              | up to 125 VDC @ .5 amps   |
| <b>Option:</b>      | 2 or 4 Hermetically Seales Switches                  |              | up to 250 VAC @ 15 amps   |
| <b>Heater:</b>      | Inernally Wired                                      |              |                           |



**Linear Valve Position Feedback Transmitter (Alternate)**

Valve Position Feedback is communicated to the DNGP Logic Module by an electronic Valve Position Transmitter. A Linear Valve Position Feedback is available for improved DNGP performance. The Linear Valve Position Feedback Transmitter features a non-contact design which provides improved hysteresis and positioning capabilities. The Linear Valve Position Feedback Transmitter is NOT available with valve status limit switches. In the event that valve status limit switches are required, a Rotary Valve Position Feedback Transmitter should be utilized. All Becker Valve Position Transmitters are rated Explosion Proof for use in hazardous locations. *The DNGP does require a Valve Position Feedback Transmitter in order to function.*

- |                     |  |                  |               |
|---------------------|--|------------------|---------------|
| <b>Transmitter:</b> | 4-20 MA Output, 10-30 VDC Powered                    | <b>Switches:</b> | Not Available |
| <b>Housing:</b>     | NEMA 7, 4, 4X, Class I, Groups C & D, Division 1 & 2 |                  |               |



**Discrete Signal Module (Alternate)**

DNGP Positioners typically utilize 4-20 mA Analog Command Signal (input) for proportional positioning. In the event that  $\pm 24$  VDC Discrete Pulse Signal (input) is required, an optional Discrete Signal Module should be utilized. The Discrete Signal Module incorporates a small additional circuit board that is mounted inside the standard DNGP explosion proof housing to allow  $\pm 24$  Discrete Pulse Signal to be accepted for positioning of the control valve.

- |                  |   |
|------------------|---|
| <b>Input:</b>    | 12 or 24V DC                              |
| <b>Output:</b>   | 4 Ma or 20 Ma (Factory Adjustable)        |
| <b>Mounting:</b> | Internally Mounted w ith DNGP Logic Board |



**Bleed to Pressure System**

All Becker control instrumentation features the unique capability to discharge vent gas into the downstream pipeline or alternate low pressure gas system. This feature is exclusive to Becker and provides complete elimination of atmospheric bleed gas emissions.



**AB Series Atmospheric Bleed Control**

When conditions allow discharge to pressure system only part of the time, install an AB-Control for automatic switching that temporarily permits atmospheric bleed. The AB-Control will maintain adequate differential pressure between supply gas pressure and discharge pressure to operate the control valve actuator and control instruments. The AB-Control is not applicable when the control instrumentation constantly discharges to atmosphere. *Reference Becker AB Series Sales Literature for additional information.*

Table 5.0 - Application Guidelines for Becker Control Instrumentation	VRP-CH Pilot	VRP-B-CH Pilot	VRP-SB-CH	VRP-SB-PID	HPP-4 Positioner	HPP-5 Positioner	HPP-SB Positioner	DNGP Positioner	Notes
<b>Applications</b>									
Pressure Control	•	•	•	•	•	•	•	•	1,2
Flow Control					•	•	•	•	2
Power Plant Type Pressure Control	•			•	•		•	•	3
Power Plant Type Flow Control					•	•	•	•	3
Surge Control					•		•		
<b>Compatible Actuators</b>									
RPDA Series	•	•			•	•		•	4,5,6
RPSR Series			•	•				•	6
SYDA Series	•				•	•		•	
SYSR Series			•	•				•	
LPDA Series	•	•			•	•		•	6
LPSR Series			•	•				•	6
LD Series			•	•				•	
<b>Instrumentation Options</b>									
Bleed to Pressure System BPS™	•	•	•	•	•	•	•	•	6
AB Series Atmospheric Bleed Control	•	•	•	•	•	•	•	•	
NBV Series No-Bleed Valve	•	•			•	•			7
DPS-2 Series Non-Bleed Sensor		•				•			9
PS-2 Series Non-Bleed Sensor	•				•				9
SP Series Setpoint Pump	•	•	•	•					
RSM Series Remote Setpoint Module	•	•	•	•					
Panel Mounting	•	•	•	•				•	
Stainless Steel Option	•	•	•	•	•	•	•		
VB Series Volume Booster	•		•	•	•	•	•		9
QEV Series Quick Exhaust Valve					•	•	•		
I/P Transducer					•	•	•		
SLV Series Signal Lock Valve					•	•	•		

1. Pressure Control applications include: pressure letdown, primary regulation, monitors, standby, overpressure protection. Underpressure protection and relief valves.
2. All Positioners require controller device to perform pressure control or flow control.
3. Power Plant Regulation includes all power plants and "fast-acting" short systems.
4. RPDA & SYDA Small Models are defined as actuator sizes < 2000 in<sup>3</sup> /0.033m<sub>3</sub>
5. RPDA & SYSR Large Models are defined as actuator sizes > 2000 in<sup>3</sup> /0.033m<sub>3</sub>
6. BPS™ is limited to discharge pressure systems below 300 psig (2068 kPa). Consult Becker for application assistance.
7. NBV No-Bleed Valves may only be utilized when P<sub>Discharge</sub> ≤ 60 psig (414 kPa) and/or P<sub>Supply</sub> ≤ 150 psig (1034 kPa).
8. PS-2 & DPS-2 Non-Bleed Sensors must be utilized when P<sub>Discharge</sub> > 60 psig (414 kPa) and/or P<sub>Supply</sub> > 150 psig (1034 kPa).
9. VB Series Volume Boosters are necessary for Power Plant Regulation, Surge Control Applications, or when Large Model RPDA & RPSR Series Actuators are utilized.



**Figure 11.0 - Becker Model DNGP Positioner Retrofit to Other Manufacturer's "Vee" Type Control Valve**

A natural gas distribution company located in California (USA) replaced existing high-bleed control instrumentation with DNGP digital natural gas Positioners to improve simplicity and eliminate steady state bleed gas emissions. Installation originally had I/P transducer, pneumatic positioner, and other instrumentation accessories. Becker replaced a variety of control instruments with the DNGP to provide electronic overpressure protection in a natural gas production facility. The Becker DNGP is compatible with almost all manufacturer's control valves for easy retrofit to reduce bleed gas emissions.

**\*CAUTION:** This information is intended as a guideline for application of Becker Precision Equipment products. Becker strongly recommends consulting Becker Engineering prior to application of any product.

[www.BPE950.com](http://www.BPE950.com)

Additional Resources are available on our website. Sales literature, sizing software, and technical manuals are available for download at [www.bpe950.com](http://www.bpe950.com)

**Becker Precision Equipment  
Dresser, Inc.**

1550 Greenleaf Avenue  
Elk Grove Village, Illinois 60007 USA  
Ph: 847.437.5950 Fax: 847.437.2549  
Toll Free Phone: 800.323.8844 Email: [becker@dresser.com](mailto:becker@dresser.com)



[www.dresser.com](http://www.dresser.com)