Eliminate Venting Emissions from Double Acting Control Instrumentation When Control Valve is Full Open and Full Closed

Description:

The NVD No-Vent Device eliminates venting emissions from VRG Controls double-acting control instrumentation when the corresponding control valve is at full-open and full-closed positions. This is ideal for Monitor and Standby Regulators the normally remain in full-open or full-closed positions. The NVD eliminates emissions at both ends of control valve travel without adjustment. The NVD is the primary choice to eliminate emissions for all VRG Controls double-acting instrumentation. The NVD is compatible with all VRG Controls double acting control instrumentation.

Features:

- Renders Monitors, Standby, and Relief Control Valves Non-Venting
- Eliminating Constant Vent Emissions and Improve Safety
- No Calibration or Adjustment Required
- Simple & Reliable Design Has Only One Moving Part
- Modular Design Minimizes Tubing Connections
- Integral Gage & Output Ports Minimize Fittings
- Recommended as Standard Issue for ALL VRG Controls Double-Acting Control Instrumentation when Vent to Atmosphere
- Easy Retrofit to All VPC Double Acting Control Instrumentation
- Exceeds EPA Ruling, EPA-HQ-OAR-2010-0505, requiring “constant bleed controllers” in the Oil and Natural gas industry must meet <6 SCFH bleed rate by October 2013.

Models Available:

- NVD-80
- NVD-100
- NVD-150

Compatible VRG Instrumentation:

- VPC-DA-BV Series Valve Pilot Controllers
- VPC-DA-SN Series Valve Pilot Controllers
- VGP-DA-BV Series Valve Gas Positioners
- VGP-DA-SN Series Valve Gas Positioners

Figure 1.0 – NVD Series No-Vent Device

The No-Vent Device eliminates venting for all VRG Controls double-acting control instrumentation when the control valve is at full-open and full-closed positions. The NVD features reliable simplicity without the need for calibration of adjustment. The modular design format integrates seamlessly with all VRG Controls double acting control instrumentation.

Table 1.0 – NVD Series Model Information

NVD Model	P_{Supply} (Min)	P_{Supply} (Max)	Effective DP Range ($P_{Supply} - P_{Discharge}$)	Max $P_{Discharge}$	Repair Kit No.
NVD-80	70 psig (552 kPa)	170 psig (1172 kPa)	70 – 90 psid (483 – 621 kPad)	80 psig (552 kPa)	RK-0300
NVD-100	90 psig (621 kPa)	225 psig (1551 kPa)	91 - 125 psid (627 – 862 kPad)	100 psig (689 kPa)	RK-0300
NVD-150	135 psig (862 kPa)	250 psig (1724 kPa)	135 - 150 psid (931 - 1034 kPad)	100 psig (689 kPa)	RK-0300

Notes:

1. When primary device discharges / exhausts to ATMOSPHERE, $P_{Discharge}$ = 0 psig
2. NVD Application must incorporate Effective DP Range (P_{Supply}-$P_{Dsicharge}$) per above to ensure NVD Shuttoff & elimination of Exhaust/Discharge when control valve is at Full OPEN / Full CLOSED Positions

Table 2.0 – NVD Series Technical Specifications

Technical Specifications	
Supply Gas Quality	Dry, Filtered @ 10µ Natural Gas or Air
NVD Shutoff	±2.0% of VPC Max Control Spring Range
MAOP	250 psig (1724 kPa)
Temperature Range	-20°F to +160°F (-29°C to +71°C)
Weight	2.0 lbs. (0.9 kg)
Dimensions	2.75 in x 3.75 in x 2 in (70 mm x 95 mm x 50 mm)
Manifold Ports	¼ O-Ring Seal
Connection Ports	¼ FNPT
Installation Orientation	Vertical Recommended
Flow Capacity (C_v)	0.990
External Parts	VRG Military Grade Aluminum Alloy with "Stealth System" Corrosion Protection 304 SS – Optional Construction
Internal Parts	VRG Military Grade Aluminum Alloy with "Stealth System" Corrosion Protection
Hardware	316 SS
O-Rings	Buna-N
U-Cup Seals	Buna-N
Springs	Painted Alloy Steel

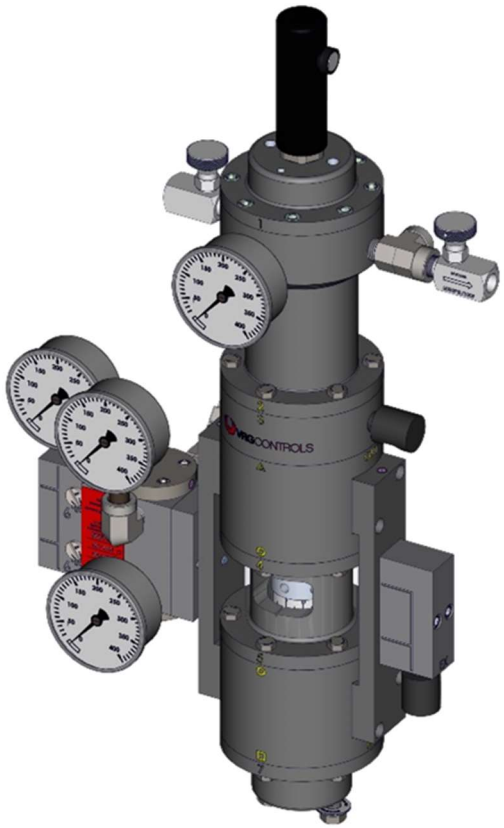

Figure 2.0 – NVD Installed on VPC Valve Pilot Controller

NVD No-Vent Device is shown installed on VPC-DA-BV Valve Pilot Controller. The NVD modular format easily installs on any VRG Controls double acting instrumentation eliminating vent gas when the control valve is at full-open and full-closed positions. The VRG NVD also features integral gage & connection ports to minimize fitting and simplify installation.