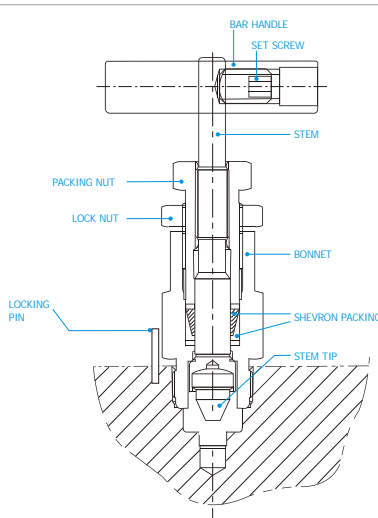


## Valve Features



Valves for Manifolds and Gauge Root Valves

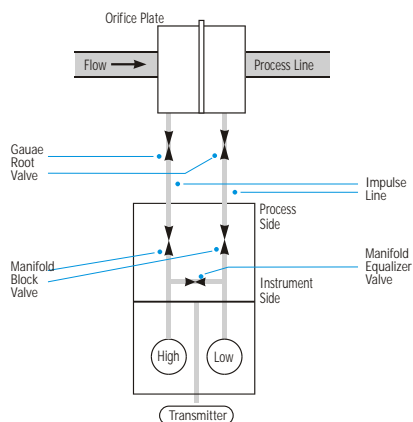
## Bleed, Block and Equalizer valve for V56 series Manifolds & V46 series Gauge Root Valves

- **Non-rotating** stem tip at closure for long-life and leak-tight shutoff. Blunt VEE tip.
- Exclusive **4-piece chevron PTFE packing** design provides far improved sealing integrity. Optional Grafoil packing.
- **Isolated Threads** : Packing located below threads prevents media contamination and thread lubricant washout.
- Stem is mechanically **ENGAGED** with the bonnet as well as threaded with the packing nut for max. safety.
- **Safety Locking Pin** ensures the valve fastened to the body when excessive opening torque is applied, and is vibration tested to MIL-STD-167-1 (SHIPS).
- Sturdy T-Bar handle:
  - a.
  - b.

## D-Pro VBR56 Manifolds Features

- Simple to install
- Burr-free internal surface
- S316 construction
- Operating at 6000 psig (413 bar)
- Standard PTFE and optional \*Grafoil packing
- Every valve is factory tested with nitrogen 1000 psig (68 bar).

### Flow measurement diagram



- **VBR56-2V-8N**  
Block and Bleed  
2 valve Remote Mount Manifold  
Pipe to pipe 1/2 female NPT  
Bleed port 1/4 female NPT



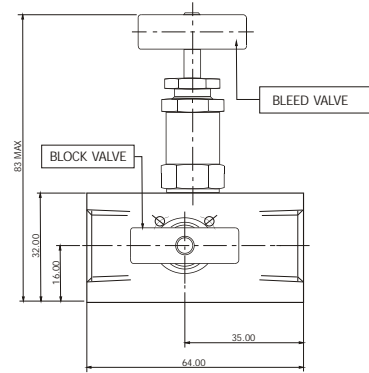
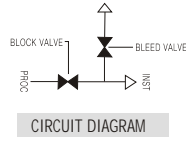
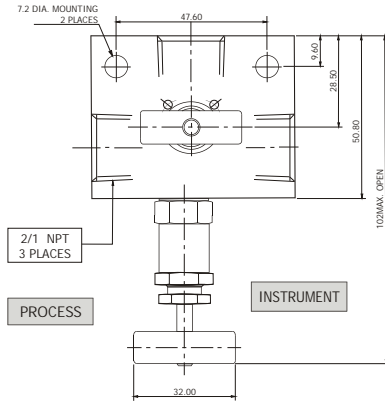
- **VBR56-3V-8N**  
Block and Equalizer  
3 valve Remote Mount Manifold  
Pipe to pipe 1/2 female NPT  
Bleed port 1/4 female NPT



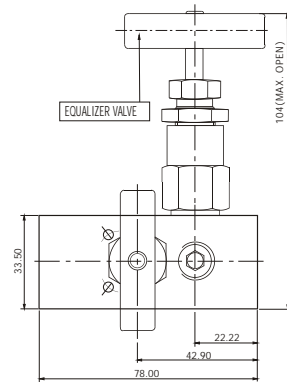
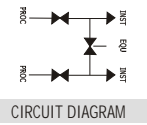
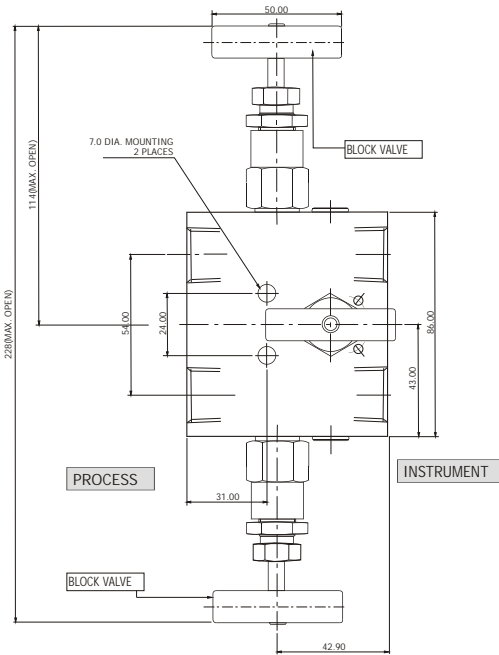
- **VBR56-5V-8N**  
Block, Equalizer and Bleed  
5 valve Remote Mount Manifold  
Pipe to pipe 1/2 female NPT  
Bleed port 1/4 female NPT

Unit : (mm)

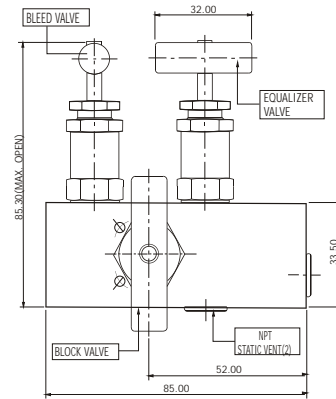
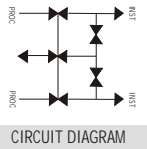
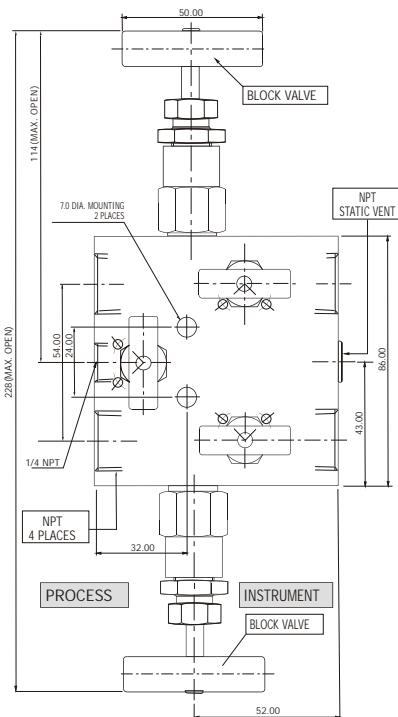
VBR56-2V-8N



VBR56-3V-8N



VBR56-5V-8N



## Design

- D-Pro Manifold design meets hydrostatic test at 1.5 times the working pressure.
- Safety Locking Pin preventing detachment of bonnet from body is vibration tested to MIL-STD-167-1
- Pressure boundary wetted parts are selected to Chapter III, Material of B31.1, 123 Acceptable Materials.

## Ordering Information and Technical Data

Manifold Type	Ordering Number	End Connections		Pressure Rating PTFE packing psig (bar)	Temperature Rating		Orifice of Block Valve mm ( in.)	Weight Kg (lb)
		Process	Instrument		PTFE packing	Grafoil packing		
Remote Mount	VBR56-2V-8N	1/2" Female NPT		6000 (413) at 100 F (37C)	-53C to 232C	-53C to 523C	3.2 (0.126)	0.78 (1.71)
	VBR56-3V-8N	1/2" Female NPT					6.4 (0.251)	1.92 (4.23)
	VBR56-5V-8N	1/2" Female NPT					2.1 (4.59)	
Direct Mount	VBD56-2V-8N	1/2" Female to Flange		3000 (210) at 450 F (232C)	(-65F to 450F)	(-65F to 973F)	3.2 (0.126)	1.6 (3.5)
	VBD56-3V-8N						6.4 (0.251)	1.64 (3.6)
	VBD56-5V-8N							3.1 (6.8)

- Pressure Rating optional Grafoil packing: 1715 psig (118 bar) at maximum temperature 973F (523C).
- To order the optional Grafoil packing, add -GF to the ordering number. i.e., VBR56-3V-8N-GF

## Operation and Application

2-valve VBR56-2V & VBD56-2V series	3-valve VBR56-3V & VBD56-3V series	5-valve VBR56-5V & VBD56-5V series
For isolating, calibrating and draining pressure gauges and transmitters	For measuring flow or level using a differential pressure transmitter.	For measuring flow or level using a differential pressure transmitter or gauge with bleeding, calibration and test functions.
<p>In operation, the block valve is normally open when the bleed valve is closed. To remove the instrument, close the block valve first, and open the bleed valve to relieve pressure upstream of the block valve.</p> <p>For calibration, by connecting a calibration gauge to the bleed port, able to check the calibration of the instrument without removing it from the installation.</p>	<p>In operation, both block valves are open while the equalizer valve is closed to read a differential pressure to the pressure gauge or transmitter. To zero the instrument, close the block valve first then open the equalizer valve and zero adjust the instrument.</p> <p>To remove the instrument, close block valves first, then unscrew the bleeding plug to relieve pressure between the manifold and instrument.</p>	<p>In operation, both block valves are open while the equalizer and bleed valves are closed to read a differential pressure to the pressure gauge or transmitter. To zero the instrument, close block valves and bleed valve, and open the equalizer valve and zero adjust the instrument.</p> <p>For calibration, connect the bleed port to a pressure gauge to check the calibration of the instrument.</p>

- Packing adjustment : Extreme or rapid temperature cycle may require packing adjustment to maintain a leak-free system. Tightening the Locknut on the bonnet is for the packing adjustment.

## D-Pro V46 series Gauge Root Valves

D-Pro Gauge Root Valves offer a safe way of positioning gauges and installing pressure switches.

## Design

- This valve is designed to ASME B16.34 Class 2500
- S316 construction with the minimum schedule 160 pipe wall on valve inlet
- V46GRL Series : Extended body allowing 4.0" of pipe insulation

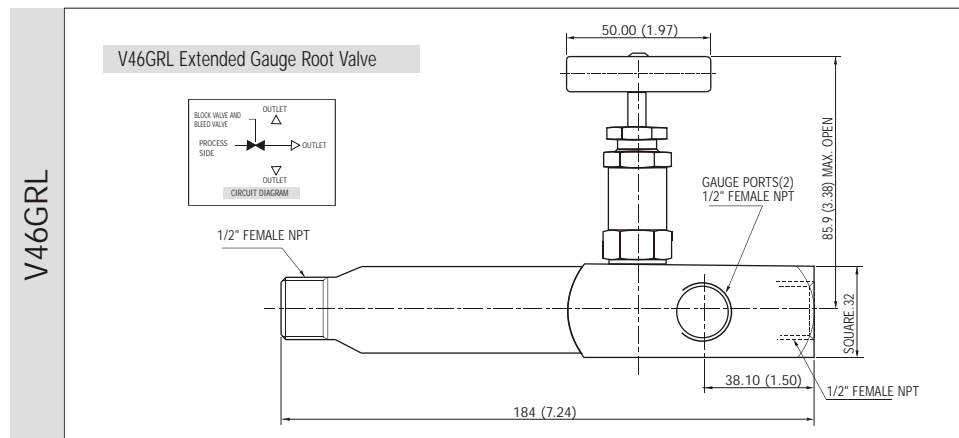
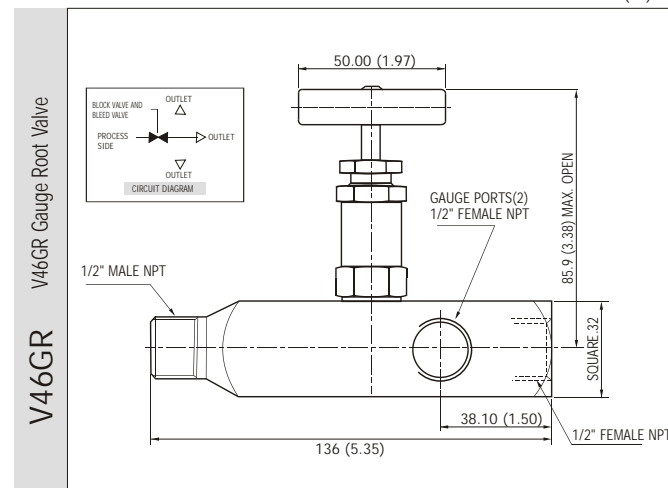
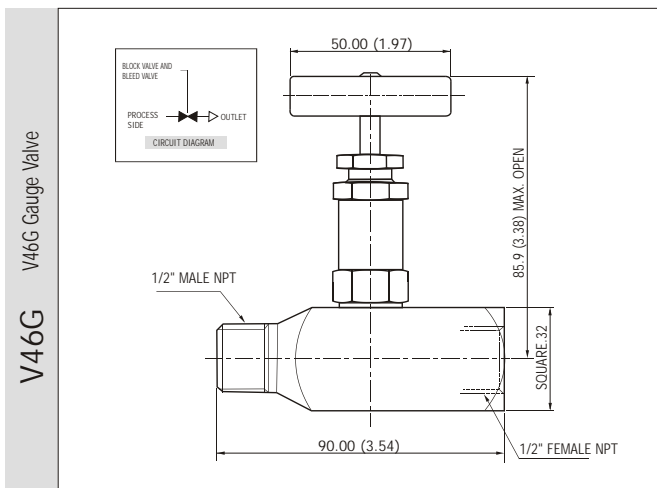
## Features

- 1/2" and 3/4" male to 1/2" female end connections
- 1/2" female gauge ports standard
- Non-rotating stem tip design
- Sour gas option to NACE MR0175 latest version

Ordering Information and Technical Data

Valve Ordering Number	End Connection Male to Female NPT	Orifice mm (in.)	Seat	Stem Packing	Pressure Rating	Pressure Rating @ Max. Temp.	Body Length mm (in.)	*
V46G-8N	1/2" to 1/2"	5.0 (0.20)	S316	PTFE	6000 psig -65F ~ 100F	4130 psig @ 450F	90.0 (3.54)	1
V46GR-8N	1/2" to 1/2"	5.0 (0.20)	S316	PTFE			136.0 (5.35)	3
V46GR-12N8N	3/4" to 1/2"	5.0 (0.20)	S316	PTFE	(413 bar -54C ~ 38C)	(284 bar @232C)	136.0 (5.35)	3
V46GRL-8N	1/2" to 1/2"	5.0 (0.20)	S316	PTFE			184.0 (7.24)	3
V46GRL-12N8N	3/4" to 1/2"	5.0 (0.20)	S316	PTFE			184.0 (7.24)	3

- \* The number of female NPT Gauge Port
- V46GRL has a extended body for pipe insulation.
- Optional Grafoil packing for high temperature is available. The rating is 1715 psig @ 973F (118 bar @ 523C). To order, use -GF as a suffix to the ordering number. Example: V46G-8N-GF



Factory Test

- Every Manifold & Gauge Root Valve is tested with the nitrogen @ 1000 psig (68 bar) for leakage at the seat to a maximum allowable leak rate of 0.1 scc/min.

Safe Valve Selection

The selection of a valve for any application or system design must be considered to ensure safe performance. Valve function, valve rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. Dk Tech accepts no liability for any improper selection, installation, operation or maintenance.

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