

# **Instrumentation Manifold Valves**



# **YDB VALVES LLP**

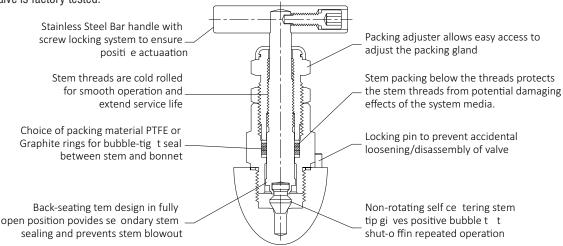
- Competitive Price
- Better Product Flexibility
- Consistency & Optimum Service

Innovations designed to improve operations and profitability



#### **FEATURES / BENEFITS**

- Available in material SS316, Inconel, Monel, Duplex etc. all wetted parts in accordance with NACE MR01-75
- · Heat Code Traceable to certified material test report
- Low operating torques
- · Bar stock Body in Straight Pattern
- · Anti Blow-out stem, Variety of stem tips
- · PTFE packing standard
- Flow coefficient (Cv) From 0.35 to 1.8
- Orifice size: 0.156" (4.0 mm), 0.250" (6.4mm), 0.375" (9.5mm)
- Variety of end configuration includes YDB ODT Tube Fittings,
   Male / Female NPT, BSPT, BSPP pipe and tube socket weld connections
- Every valve is factory tested.



#### **OPERATING PARAMETERS**

Pressure Rating : upto 6000 psig (413 bar) at CWP

Temperature Rating : -54°C to 232°C with standard PTFE packing

upto 426°C with optional Graphite packing

#### TECHNICAL DATA:

The Temperature and Pressure rating for a standard valve with PTFE packing.

	Pre	ssure
Temperature	psig	bar
-54°C to 38°C	6000	408
-54°C to 93°C	5160	351
-54°C to 148°C	4660	317
-54°C to 204°C	4280	291
-54°C to 232°C	4130	289

#### **TESTING**

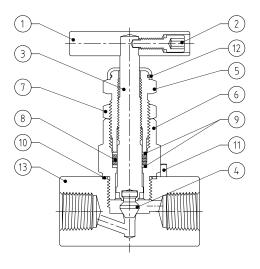
- Standard Test: Each valve is factory tested with nitrogen at 1000 psig (69 bar) for leakage at the seat and packing.
- Optional Hydrostatic test: This test is performed with de-ionised water at 1.5 time the working pressure.

#### **APPLICATIONS**

- · General Plant Service
- Instrument Isolation
- Hydraulic and Pneumatic
- · Pressure measurement devices
- Venting

MATERIAL OF	CUNS	IKUUI	IUN
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	Sr No.	Description	Material
	1.	Bar Handle	SS316
	2.	Set Screw	SS316
	3.	Stem	SS316
	4.	Stem Tip	SS316
	5.	Packing Bolt	SS316
	6.	Lower Bonnet	SS316
	7.	Lock Nut	SS316
	8.	Packing	PTFE
Э	9.	Packing Washer	SS316
	10.	Washer	SS316
	11.	Lock Pin	SS316
	12.	Dust Cap	PVC
	13.	Valve Body	SS316



#### **STEM TYPE:**

YDB Needle Valves are available with choice of optional stem to provide greater flexibility.

NON-ROTATING (NR) : It is Standard self centering non rotating stem tip typically used in high cycle application to extend the valve life.

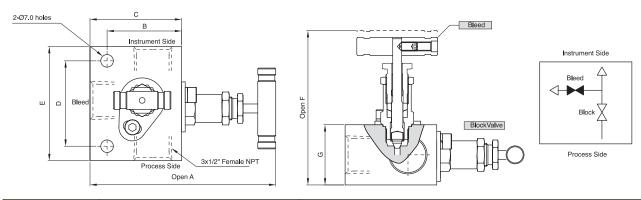
V-STEM (VS) : It is used for general purpose liquid and gases.

SOFT SEAT (SS) : A soft seat stem requires a lower sealing torque, It is replaceable and suitable for temperature upto 120°C

REGULATING STEM (RS): It is used where some degree of flow control required.

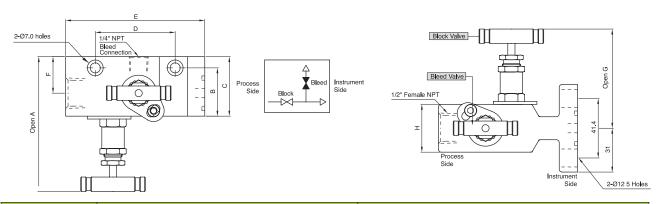


#### **Horizontal Style (Remote Mounting)**



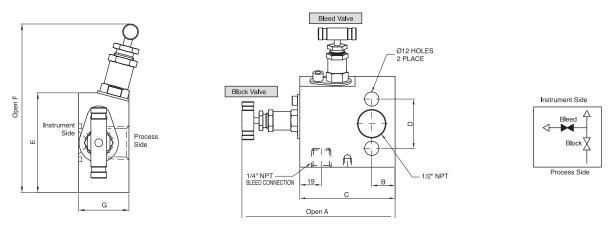
Part Number		End Connections	S	Weight Dimensions								
	Process	Α	В	С	D	Е	F	G				
YM2V-F8N	1/2" Female NPT			103.5	41.5	51	47.5	63.5	85.9	33.5		

## **Horizontal Single Flange Style (Direct Mounting)**



Part Number	End (	End Connections					Weigh	t Dimensio	ons	
	Process Instrument B		Bleed	Α	В	С	D	Е	F	G
YM2VF-F8N	1/2" Female NPT	Flange	1/4" Female NPT	103.5	41.5	51	47.5	63.5	85.9	33.5

#### **Vertical Style (Direct Mounting)**

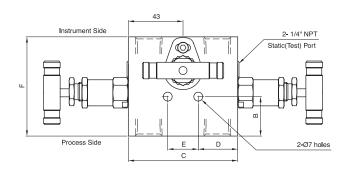


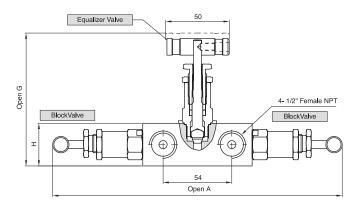
Part Number	End (	Connections	End Connections			Weight Dimensions							
	Process Instrument		Bleed	Α	В	С	D	Е	F	G			
YM2VD-F8N	1/2" Female NPT	Flange	1/4" Female NPT	116.0	17.0	63.5	41.4	63.5	115.0	23.6			

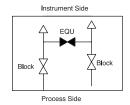
<sup>All dimensions in millimeters unless specified as "inch". Dimension are for reference only and are subject to change.
To order a manifold with optional Grafoil packing, add-G to the manifold ordering number.</sup> 



#### **Horizontal Style (Remote Mounting)**

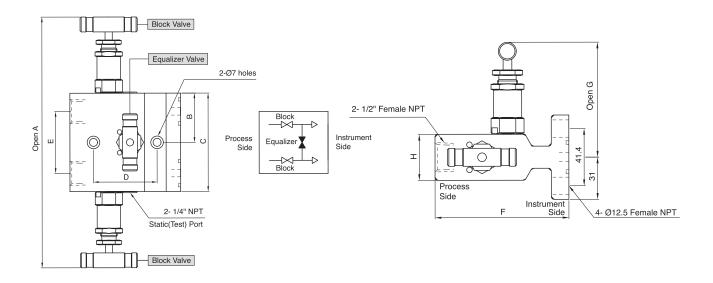






Part Number	End Con	nections	Weight Dimensions								
	Process Instrument		Α	В	С	D	Е	F	G		
YM3V-F8N	1/2" Female NPT		228.0	31.0	86.0	24.0	78.0	106.0	33.5		

#### **Horizontal Single Flange Style (Direct Mounting)**



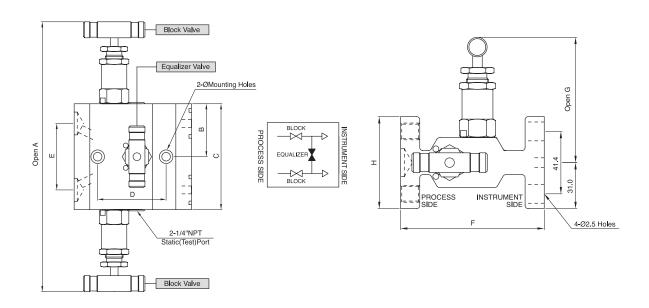
Part Number	End Co	onnections				Weight D	imensions			
	Process Instrument A		Α	В	С	D	Е	F	G	Н
YM3VF-F8N	1/2" Female NPT	Flange	228.0	43.0	86.0	55.6	54.0	97.0	87.7	31.8

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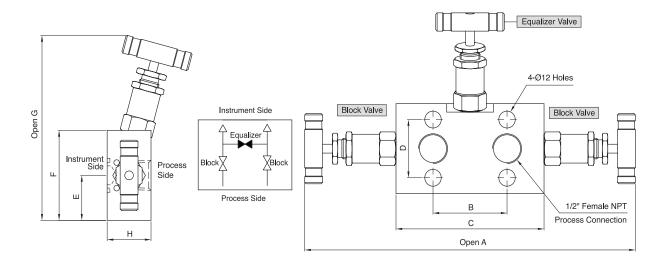


#### **Horizontal Dual Flange Style (Direct Mounting)**



Part Number	End C	onnections				Weight D	imensions			
	Process Instrument A		А	В	С	D	Е	F	G	Н
YM3VDF	Flange	Flange	228.0	43.0	86.0	55.6	54.0	96.4	87.7	62.0

## **Vertical Style (Direct Mounting)**



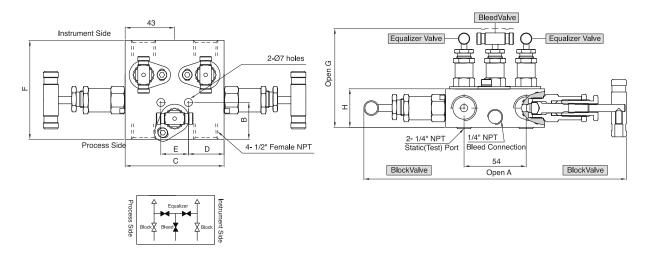
Part Number	End C	onnections	Weight Dimensions									
	Process Instrument A		Process Instrument		А	В	С	D	Е	F	G	Н
YM3VD-F8N	1/2" Female NPT	Flange	250.0	54.0	108.0	41.4	32.0	64.0	136.0	32.0		

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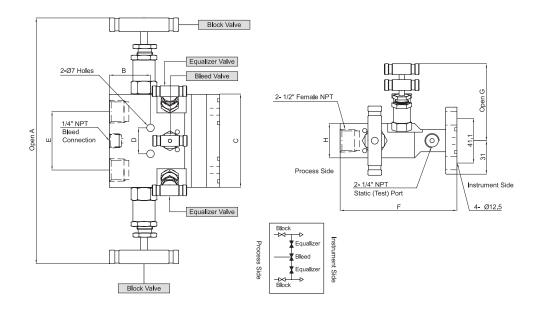


#### **Horizontal Style (Remote Mounting)**



Part Number	End Connections			Weight Dimensions							
	Process Instrument		Bleed	А	В	С	D	Е	F	G	Н
YM5V-F8N	1/2" Female NPT		1/4" Female NPT	228.0	32.0	86.0	31.0	24.0	86.0	85.9	33.5

#### **Horizontal Single Flange Style (Direct Mounting)**



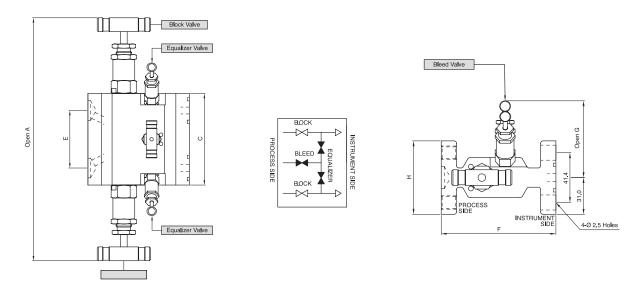
Part Number	End Connections			Weight Dimensions							
	Process	Instrument	Bleed	Α	В	С	D	Е	F	G	Н
YM5VF-F8N	1/2" Female NPT	Flange	1/4" Female NPT	228.0	38.0	86.0	24.0	54.0	108.0	69.0	31.8

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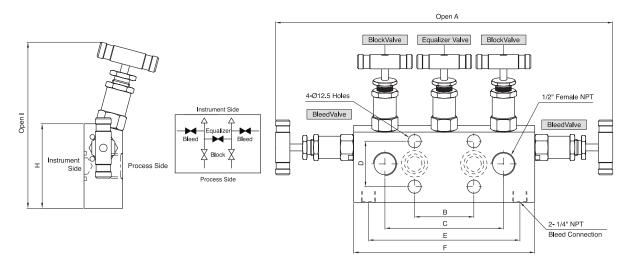


#### **Horizontal Dual Flange Style (Direct Mounting)**



Part Number	End Connections			Weight Dimensions							
	Process	Instrument	Bleed	А	В	С	D	E	F	G	Н
YM5VDF	Flange	Flange	1/4" Female NPT	228.0	32.0	86.0	24.0	54.0	96.4	69.0	61.0

#### **Vertical Style (Direct Mounting)**



Part Number	End Connections		Weight Dimensions									
	Process	Instrument	Bleed	Α	В	С	D	E	F	G	Н	1
YM5VF-F8N	1/2" Female NPT	Flange	1/4" Female NPT	312.0	54.0	102.0	41.4	138.0	158.0	148.0	76.2	32.0

- All dimensions in millimeters unless specified as "inch". Dimension are for reference only and are subject to change.
- $\bullet \ \, \text{To order a manifold with optional Grafoil packing, add-G to the manifold ordering number.}$



# **Manifolds Accessories**

### Flange Bolts & Seals

#### **Flange Bolts**

Flange Bolt	Part Number	Hex Size mm (in.)	Length mm (in.)	Threads	Bolt Material Designator
Standard Hex Head Bolt	YM-FB		25.0 (1.0)		
Long Stud with Hex Nut	YM-LFB	15.87 (5/8)	58.0 (2.28)	7/16-20	Stainless Steel: -S Carbon Steel: -C
Short Hex Head Bolt	YM-SFB	(5/5)	22.2 (0.875)	7710 20	Carbon Cicci. C



#### Flange Seals

Seal Material	Ordering No.	Temperature Rating
Viton	YM-FS-V	-20 ~ 450 (-28 ~ 232)
PTFE	YM-FY	-65 ~ 250 (-53 ~ 121)
Grafoil	YM-FY-GR	-65 ~ 1000 (-53 ~ 537)

# **Ordering Information**

Example:  $\frac{YM2}{1} \frac{V}{2} - \frac{F}{3} \frac{8N}{4} - \frac{M40}{5}$ 

#### 1. Valve Series

Ym2 : 2-Valve Manifolds Ym3 : 3-Valve Manifolds Ym5 : 5-Valve Manifolds

#### 2. Mounting Type

V : Horizontal style ( Remote Mounting)
VF : Horizontal Single Flange Style (Direct Mounting)
VDF : Horizontal Dual Flange Style (Direct Mounting)

VD : Vertical Style (Direct Mounting)

#### 3. End connection type

Y : YDB Tube Fittings F : Female pipe thread

#### 4. End connection size

#### Tube O.D. Designation

Size (inch)	1/2
Designation	8

#### Pipe Thread Designation

Size (inch)	1/2
Designation	8N

#### 5. Body Material

SS: Stainless steel 316 M40: Alloy 400 (Monel)



# **Instrumentation Gauge Valves**

# YGBV / YGBV2 Series





#### **Features**

- Stainless steel construction.
- 1/2 in. and 3/4 in. male to 1/2 in. female end connections.
- 1/2 in. female gauge ports standard.

# **Specifications**

Maximum Working Pressure Rating	6000 psig (413 bar) @ 100 F (38 C)
Temperature Rating	-65 to 450 F (-54 to 232 C) with PTFE packing
Body Material	316 Stainless Steel
Orifice	0.125" (3.2mm), 0.250" (6.4mm)

# **Testing**

- Each Valve is tested with nitrogen at 1000 psig(69bar) to maximum allowable leak rate of 0.1 SCCM.
- Hydrostatic shell test is performed at 1.5 times of the working pressure. (option)

## **Ordering Information**

#### 1. Valve Series

YGBV : Gauge

YGRV : Gauge Root Valve YGBV2 : Gauge 2 - Valve

### 2. End connection type

M : Male Pipe Thread F : Female pipe thread

#### 3. Port Size

**Pipe Thread Designation** 

1	Size (inch)	1/2	3/4
	Screwed NPT	8N	12N
	Screwed BSPT	8R	12R

#### 4. Body Material

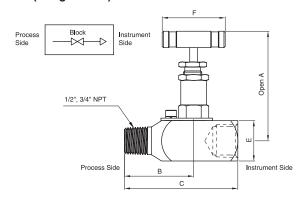
SS: Stainless Steel 316



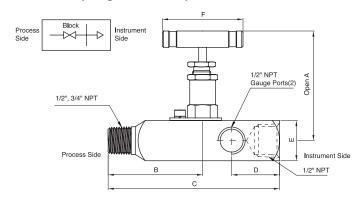
# **Gauge Valve**

## **Gauge / Root Valve**

#### YGBV (Gauge Valve)



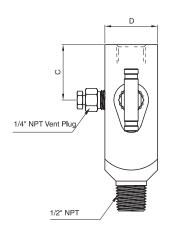
#### YGRV (Gauge Root Valve)

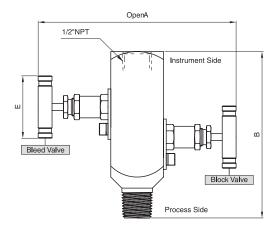


Part Number	End Connec	Weight Dimensions						
	Process	Instrument	Α	В	С	D	Е	F
YGBV-M8N-F8N	1/2" Male NPT	NPT 1/2" Female NPT						
YGBV-M12N-F8N	3/8" Male NPT 1/2"	1/2" Female NPT	87.0	54.0	90.0	-	32.0	45.0
YGBV-M8N-F8N	N Male NPT 1/2" Female NPT							
YGBV-M12N-F8N	3/4" Male NPT	1/2" Female NPT	87.0	75.0	136.0	38.1	32.0	45.0

# **Gauge 2-Valve**

#### YGBV 2







Part Number	End Connection	ons			Dimensions	(mm)	
	Process	Instrument	Α	В	С	D	Е
YGBV-M8N-F8N	1/2" Female NPT	1/2" Female NPT	142	120	40	38	45

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 $<sup>\</sup>bullet \ \, \text{To order a manifold with optional Grafoil packing, add-G to the manifold ordering number.}$ 





An ISO 9001:2015 Certified Manufacturing Co.

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