



Meriam's Manometer Line

Meriam Manometers have many advantages in this age of technology because of their inherent accuracy and simplicity. Manometers are unique in being both pressure measurement instruments and standards for calibration of other instruments. The manometer is commonly used to measure pressures ranging from as high as 100 inches of 2.95 Red Fluid (10.65 PSI) to the lowest vacuums of space.

PICTURE. PERFECT. PRECISION.

First invented in the seventeenth century, manometers are used to measure the pressure of gases. During the 1600s, scientists tried to explain natural phenomena in logical, rational ways, instead of relying on mystical or magical explanations. At this time, most people, including the great scientist Galileo, believed water pumps demonstrated the commonly held theory that nature abhors a vacuum, but because they were unaware that air and other gases exert pressure, they could not explain why a pump could not raise water more than 32 ft (9.7 m).

In 1643, Italian physicist Evangelista Torricelli tried to explain this phenomenon. In his experiments, Torricelli used a vertical tube filled with mercury to measure air pressure, and in doing so, he created the first mercury barometer, proving that air has weight and exerts pressure on all objects and substances on Earth. Soon afterward, British chemist Robert Boyle used a mercury barometer to determine the relationship between the pressure of air and its volume. In these experiments both Torricelli and Boyle used rudimentary versions of the manometer.



U-Tube Manometer

The U-tube manometer is the basic and most widely used style of manometer. The Meriam U-tube manometer is a versatile, economical instrument for the measurement of pressures, vacuums or differential pressures. Pressure measurements are accomplished by balancing a vertical head of indicating fluid with the pressure to be measured. There are no cams, gears, or levers to operate in the manometer. This allows the U-tube manometer to be recognized by NIST as a primary standard due to its inherent accuracy and simplicity of operation. Meriam U-tube manometers are constructed of a ridged cast aluminum frame, aluminum indicating scale and hand bent glass U-tube. Mounting holes are provided in the frame for mounting to a wall, column or other suitable structure.



Well Type Manometer

Well manometers are a direct reading device designed for process monitoring, general purpose production testing or laboratory measurement. Designed for a maximum line pressure of 250 PSI (500 PSI optional) these instruments may also be used for tank level, flow measurement and leak detection. Well manometers are constructed of aluminum channel, stainless steel end blocks and stainless steel manometer well. The $\frac{7}{16}$ " diameter glass tubing is yoke packed with viton gaskets at each end block and is supported at spaced intervals to prevent distortion. In most cases, the uncertainty of a manometer reading is $\pm \frac{1}{2}$ of the smallest scale graduation. This is due to the human eye's ability to interpolate between graduations.



Inclined Manometer

Inclined manometers provide greater readability by stretching a vertical differential along an inclined indicating column, giving more graduations per unit of vertical height. This effectively increases the instrument's sensitivity and accuracy. Scales are typically graduated to the hundredth of an inch. The Model 40HEX Inclined manometer is individually calibrated and the angle of inclination is set relative to the instrument level mounted above the channel. The unit is also capable of operating with 350-PSI line pressure. The construction of the 40HEX35 is similar to the well type manometer described above. Additional inclined manometers are available depending on your requirements. Please review the manometer chart on the facing page or contact the factory for assistance.



DON'T FORGET TO ACCESSORIZE!
MERIAM OFFERS INDICATING FLUIDS
AND ACCESSORIES FOR OUR
MANOMETER LINE. BE SURE TO
ASK YOUR MERIAM REPRESENTATIVE
FOR MORE INFORMATION WHEN
PLACING YOUR ORDER.
SEE PAGES 80-81.



Meriam Manometers Quick Selection Chart

MODEL	RANGES (In Inches)	WETTED PARTS	PRESSURE RATING	MOUNTING STYLES
"U" Tube 10AA25	6, 10, 15, 20, 30, 50	Cast Iron 316 SS PVC	250 PSIG	Wall Table
Hi Pressure "U" Tube 20DAX40	10, 20, 30, 40, 60, 80, 100	303 SS	400PSIG	Wall Table
General Purpose 30EBX25 30EBX50	6, 12, 20, 30, 35, 40, 50, 60, 80, 100	303 SS	250 PSIG 500 PSIG	Wall, Table Flush Front Pipe
Precision Vernier 30EFX25	20, 30, 40, 50, 60	303 SS	250 PSIG	Wall, Table Flush Front Pipe
Multiple Tube 33KBX35	12, 20, 30, 40, 50, 60, 80, 100	303 SS	350 PSIG	Wall, Table Flush Front
Micro Precision 34FB2TM 34MB2TM	10, 20	Stainless Steel	20 PSIG	Table
Acrylic Inclined 40AM10 40AX10	1, 2, 3, 6" 25, 50, 75, 150mm	Acrylic	100 PSIG	Wall Table
General Purpose Inclined 40HEX35	2, 4, 6, 8, 10, 12, 14, 16, 18, 20	Stainless Steel	350 PSIG	Wall
Draft Gauge Inclined 40GD10	½, 1, 1 ½, 2, 3, 4	Aluminum	100 PSIG	Wall

Consult factory for other available models and fluids.

CUSTOMER TESTIMONIAL

Accurate and simple. That basically describes Meriam manometers in a nutshell and that's the reason we keep coming back to Meriam for our manometer needs.

-Maintenance Manager



Wall Mount

Model 10AA25

Clean-Out U-Type Manometer

The Meriam 10AA25 manometer is a versatile, economical instrument for the measurement of pressures, vacuums or differential pressures.

The U-tube type manometer is a primary basic standard of pressure measurement. Pressure measurements are accomplished by balancing a vertical head of indicating fluid with the pressure to be measured. As there are no cams, gears or levers to operate in the manometer, the readings obtained are always accurate.

Model 10AA25 Construction

The manometer has a rigid cast aluminum body frame protecting the glass U-tube on three sides. Mounting holes are provided in the frame for mounting to a wall, column or other suitable structure.

The clean-out head at the top of the instrument seals the indicating tube legs and also provides for the external pressure connections to the manometer. The manometer head fastens to the body by a single nut and is quickly and easily removed when necessary. This exclusive Meriam clean-out head feature permits cleaning and filling of the U-tube without disconnecting the piping to the manometer head. A 1/4" female pipe connection is provided out the left and right sides of the clean-out head as standard. Pressure connections at rear or top of head can be furnished when specified. Manometer clean-out heads of cast iron, stainless steel or PVC are available for special corrosive applications.

The manometer scale is located between the tube legs and overlaps the tube legs to a degree that eases reading at the meniscus position.

The scale is readily adjustable for zero indicating fluid level.

The simple engineered method of supporting and sealing the U-tube in this manometer permits easy tube replacement in the field.

Mano. Range Inches	A Inches	B Inches	C Inches	D Inches
6	10 3/4"	2 15/16"	2 7/8"	—
10	15 5/8"	2 15/16"	7 1/2"	—
15	19 1/8"	4 15/16"	7 1/4"	—
20	24 3/8"	2 5/8"	17"	1 11/16"
30	35"	3 3/4"	21 3/8"	1 11/16"
50	55 7/16"	3 1/8"	43 3/16"	1 11/16"

Range inches	6	10	15	20	30	50
Weight lbs.	2	3	3	4	5	6

Model 10AA25

Clean-Out U-Type Manometer

Specifications

Scales

- A – Linear Inches & Tenths (Included as Standard)
- F – Linear Centimeters & Millimeters
- G – Inches & Tenths H₂O Using 827 Red Oil
- H – Inches & Tenths H₂O Using 190 Blue Fluid
- I – Inches & Fifths H₂O Using 295 Fluid (SS Head Only)
- KPA/W – Kilopascals Using Water
- MI – Cm H₂O Using 295 Fluid (SS Head Only)

Specials

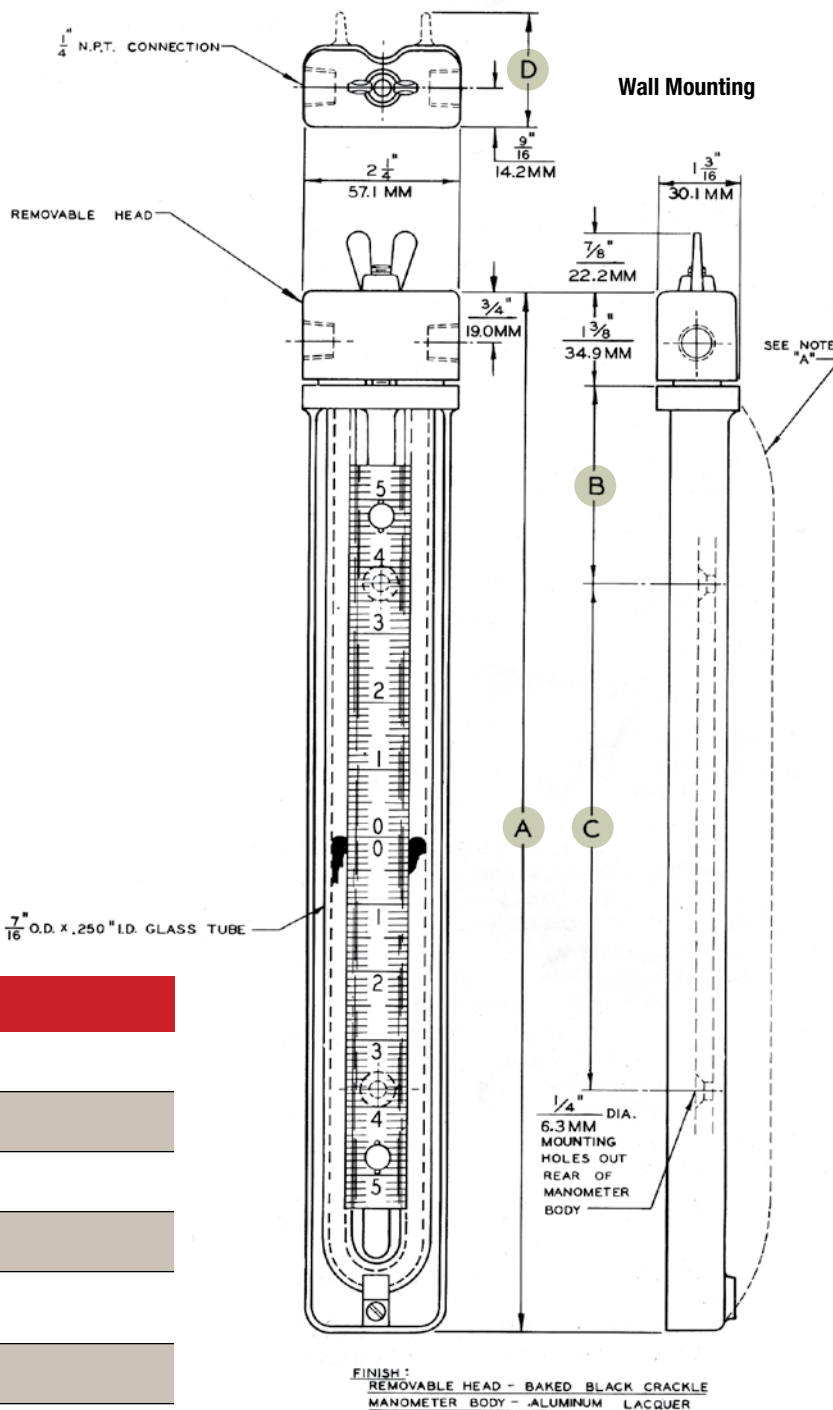
Accessories

- Return Well Model: Z934H50
- Bubbler Model: Z931R or Z931S
- Line Trap Model: Z932R or Z932S
- Valve & Piping Manifold: Z943AC300 – Steel
Z943AS300 – SS
- Pressure vacuum Variator Model: Z971A3
- Table Mounting Stand Model: Z912A
- Slip On Cover Model: Z915C

Ordering Information

To order Meriam's 10AA25 manometer custom-made to your specifications, please contact your Meriam sales representative with the following information:

- Head Material
- Range
- Required Scale



Specifications	
Type	U-type
Range	6, 10, 15, 20, 30, 50 inches
Pressure Rating	250 PSIG
Mounting	Wall
Indicating Tube & Packing	Glass, Neoprene
Body Construction	Aluminum
Wetted Parts Material	Cast Iron, 316 SS, PVC
Scale Finish	Satin aluminum, black graduations
Finish	Aluminum body, black crackle enamel head



Model 20DAX40

Manometer

The Model 20DAX40 manometer is designed for the measurement of pressures, vacuums or differential pressures with a maximum operating pressure of 400 PSI.

This manometer is of very rigid construction designed primarily for high line pressure operation. Only carefully selected, fully annealed glass tubing is used. The manometer scale is located to permit quick and accurate reading of the indicating columns.

The U-tube type manometer is a primary basic standard of pressure measurement. Pressure measurements are accomplished by balancing a vertical head of indicating fluid with the pressure to be measured. As there are no cams, gears or levers to operate in the manometer the readings obtained are accurate.

Model 20DAX40 Construction

The manometer body has an aluminum channel to which stainless steel and blocks are connected. The wetted parts are type 304SS.

The glass tubing is gland packed with viton gaskets at each end block and is supported at spaced intervals to prevent tube distortion at elevated pressures. In place of the conventional U-tube of one continuous glass length, two straight length individual tubes are used in this manometer. To connect the two vertical glass tube legs to form the U, the lower manometer end block is cross-drilled.

The manometer scale is furnished with a white, non-glare satin background with black graduations and characters. The scale is adjustable for zero indicating fluid.

A transport cover seals the unit from dust and moisture and affords protection to the operator should excessive pressures cause an indicating tube to fracture.

Standard pressure connections are 1/4 inch female pipe out the top of the upper end block. A drain plug out the bottom of the lower end block permits draining of the manometer indicating fluid and cleaning of the glass indicating tubes. The instrument finish is a durable textured, black urethane.

Fluid Requirements per Tube & Instrument Weight

Range	10	20	30	40	60	80	100
Mercury lbs.	1	1	2	2	2	3	3
295 Fluid lbs.	.25	.25	.5	.5	.5	.75	.75
Fl. Oz.	1	1	2	2	2	4	4
Weight lbs.	5	6	10	12	15	18	22

Model 20DAX40

Manometer

Specifications

Scales

- A – Linear inches and tenths
- B – Inches water pressure using mercury
- C – Pounds and tenths using mercury (PSI)
- F – Linear centimeters and millimeters
- G – Inches and tenths of water pressure using Meriam 827 Red Oil
- H – Inches and tenths of water pressure using Meriam 175 Blue Fluid
- I – Inches and fifths of water pressure using Meriam 295 Red Fluid

Fluids	Nominal Sp. Gr.
Meriam 1000 Green Concentrate	1.000
Meriam 827 Red Oil	0.827
Meriam 100 Red Unity Oil	1.00
Meriam 295 Red Fluid	2.95

Dimensions Table

Range	A	B	C	D	E	F
10"	16.50 (419.1)	6.50 (165.1)	5.00 (127.0)	19.00 (482.6)	7.75 (196.9)	5.125 (130.2)
20"	26.50 (673.1)	10.50 (266.7)	8.00 (203.2)	29.00 (736.6)	7.75 (196.9)	5.125 (130.2)
30"	36.50 (927.1)	20.50 (520.7)	8.00 (203.2)	39.00 (990.6)	7.75 (196.9)	5.125 (130.2)
40"	46.50 (118.1)	30.50 (774.7)	8.00 (203.2)	49.00 (1224.6)	12.00 (304.8)	8.00 (203.2)
60"	60.50 (1689.1)	50.50 (1282.7)	8.00 (203.2)	69.00 (1752.6)	12.00 (304.8)	8.00 (203.2)
80"	86.50 (2197.1)	70.50 (1790.7)	8.00 (203.2)	89.00 (2260.6)	12.00 (304.8)	8.00 (203.2)
100"	106.50 (2705.1)	90.50 (2298.7)	8.00 (203.2)	109.00 (2768.0)	12.00 (304.8)	8.00 (203.2)

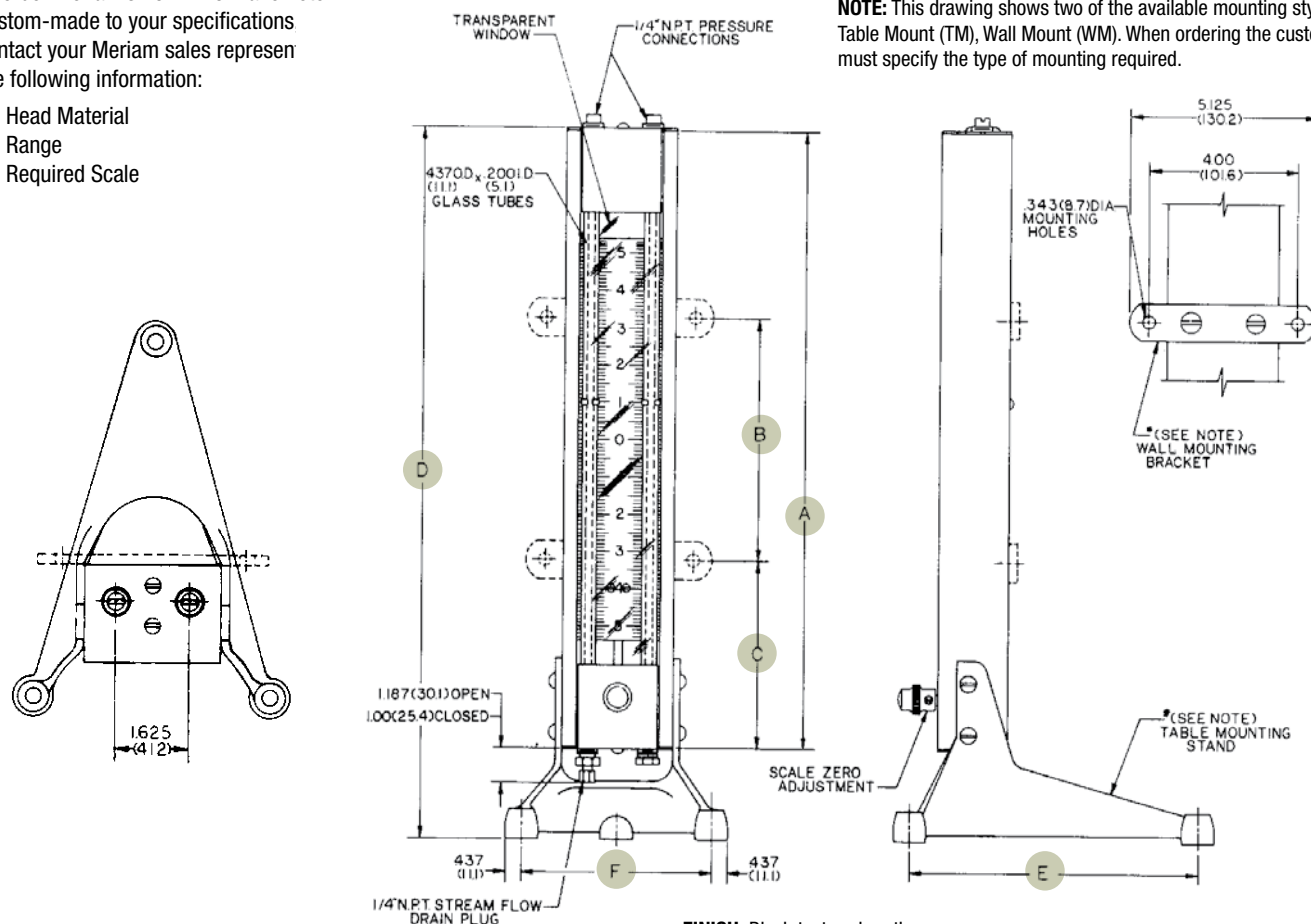
NOTE: All numbers in parentheses are in millimeters.

Ordering Information

To order Meriam's 20DAX40 manometer custom-made to your specifications contact your Meriam sales represent the following information:

- Head Material
- Range
- Required Scale

NOTE: This drawing shows two of the available mounting styles: Table Mount (TM), Wall Mount (WM). When ordering the customer must specify the type of mounting required.



FINISH: Black textured urethane



MERIAM
Model 30EBX25
Table Mount



MERIAM
Model 30EBX50
Table Mount



MERIAM
Model 30EFX25 TM
Vernier Model

Model 30EBX25, 30EBX50, 30EFX25 Well Type Manometer

The Meriam Model 30EBX25 and 30EFX25 well type manometer are direct reading manometers designed for process, general purpose production testing, or laboratory measurement of pressures, vacuums or differential pressures.

Designed for a maximum operating pressure of 250 PSIG,* these instruments can also be used to measure flow, tank level, and pressure drop or distribution across operating equipment. Raised wells can be furnished so positive and negative pressures or reversing flow can be indicated without changing the pressure connections. Various mounting styles to satisfy installation requirements are available.

*Model for 500 psi is 30EBX50

Well Type Manometer Construction

The manometer body is of aluminum channel construction. Stainless steel end blocks, for packing the glass indicating tube, are screwed to the body. The $\frac{7}{16}$ " outside diameter glass tubing is yoke packed with viton gaskets at each end block and is supported at spaced intervals to prevent tube distortion.

The welded stainless steel manometer well has a large cross section and is readily removable for greatest ease in cleaning. Two $\frac{1}{4}$ " female pipe connections are provided on the top side of the well; one outlet is normally used for the high pressure manometer connection, while the other, provided with a plug, is used as the well fill connection.

The unit scale, located directly behind the glass indicating tube, extends the full width of the instrument body and is graduated on each side of the indicat-

ing column. This scale has a white, non-glare satin background with black graduations and figures, and is compensated for liquid level change within the manometer well. The scale is adjustable for zero indicating fluid level by means of a non-slip, flexible shaft adjustment located in the lower end block and operated from the front of the instrument.

A transparent plexiglass cover protects the unit from dust and moisture. All exterior portions of the manometer are finished in textured, black urethane paint.

Standard pressure connections in the upper end block and at the manometer well for connecting the instrument are $\frac{1}{4}$ " female pipe connections. Suitable drain, fill and vent plugs are furnished with each unit.

Model 30EBX25, 30EBX50, 30EFX25

Well Type Manometer

Specifications

Scales

- A – Inches and tenths
- F – Centimeters & millimeters
- G – Inches & tenths of water using 827 Red Oil
- I – Inches & fifths using 295 Red Fluid
- A/F – Duplex – Inches & tenths (left) centimeters & millimeter (right)
- MI – Centimeters of water using 2.95 Fluid Specials

Fluid Requirements & Instrument Weight

Range	6	12	20	30	35	40	50	60	80	100
Weight	6	9	11	12	—	13	14	17	21	24
#3 Fluid lbs.	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	1.5
Fl. Oz.	4	4	4	4	4	4	4	4	7	7

Consult factory for special scale and fluids.

Accessories

- Bubbler – model Z931R or Z931S
- Line Trap – model Z932R or Z932S
- Moisture Trap – model Z933A10
- Pressure/Vacuum Variator – model Z971A3
- Tank Gauge Accessories
- Pipe Saddle – model Z912S
- Raised Well

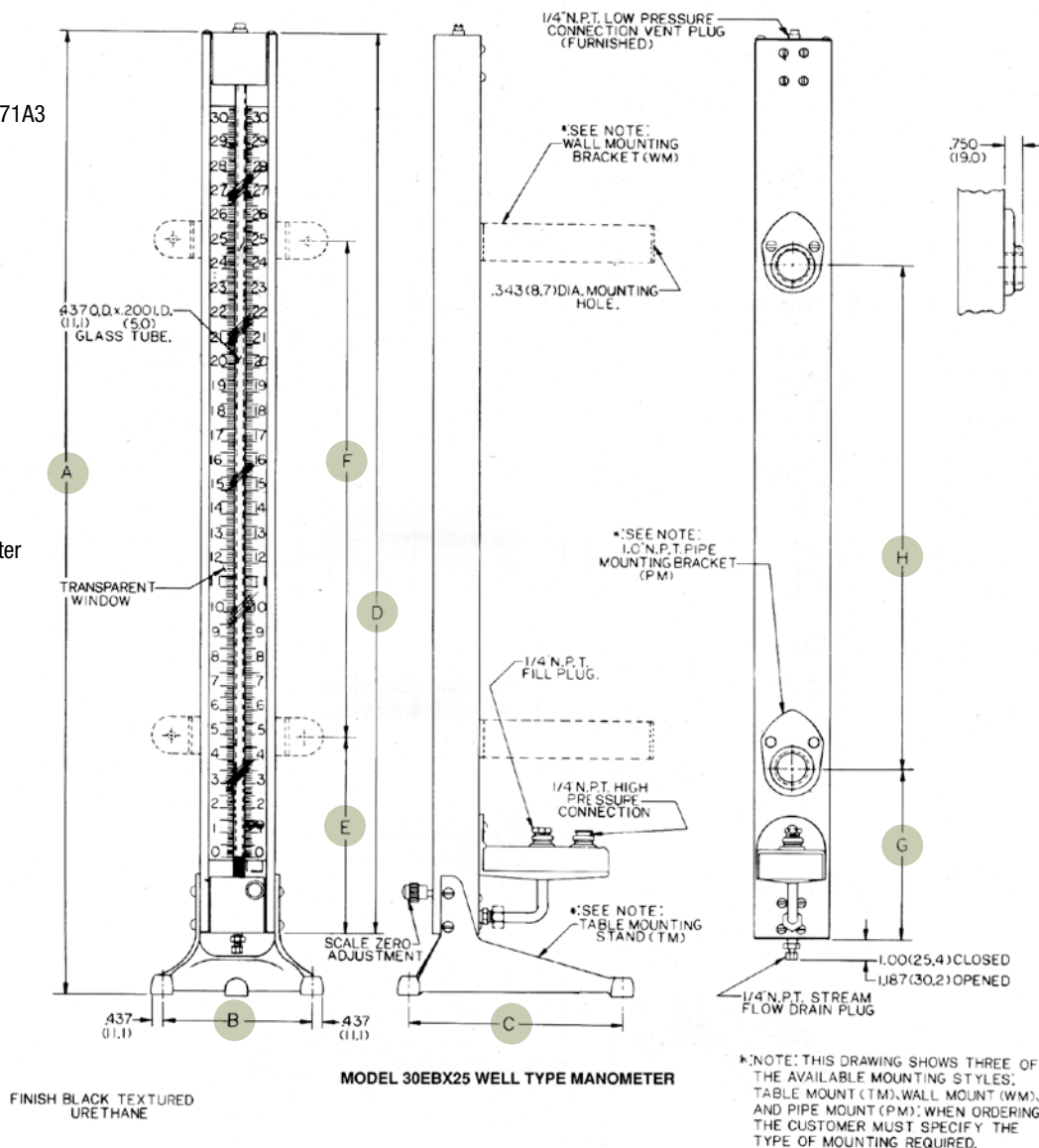
Available Fluids

- Z922WA – 1000 Green Concentrate
- Z923RO – 827 Red Oil
- Z923RU – 100 Red Unity Oil
- Z923BFL – 190 Blue Fluid
- Z924BA – 295 Red Fluid

Ordering Information

To order a Meriam well-type manometer custom-made to your specifications, please contact your Meriam sales representative with the following information:

- Range
- Mounting Style
- Safe Working Pressure
- Scale Description





MERIAM
Model 30EBX25
Table Mount



MERIAM
Model 30EBX50
Table Mount



MERIAM
Model 30EFX25 TM
Vernier Model

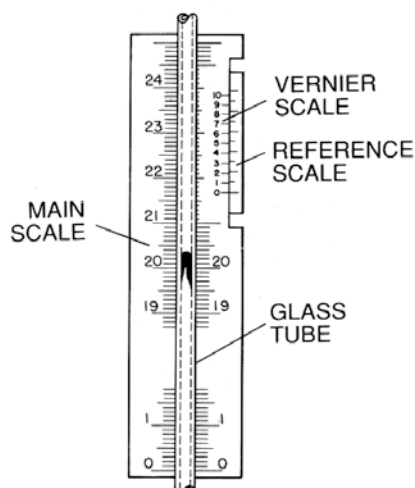
Model 30EBX25, 30EBX50, 30EFX25

Well Type Manometer *(Specifications Continued)*

Dimensions Table

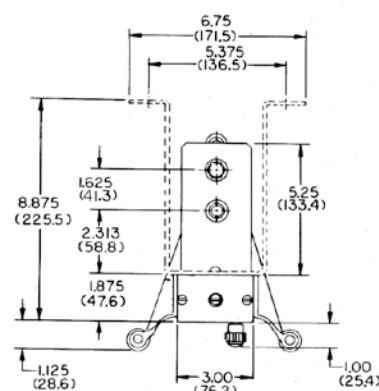
Range	A	B	C	D	E	F	G	H
6"	15.25 (387.4)	5.125 (130.2)	7.75 (196.9)	12.75 (323.9)	6.25 (158.9)	3.75 (95.3)	9.00 (228.6)	—
12"	21.25 (539.8)	5.125 (130.2)	7.75 (196.9)	18.75 (476.3)	8.00 (203.2)	5.50 (139.7)	7.00 (177.8)	—
20"	29.25 (743.0)	5.125 (130.2)	7.75 (196.9)	26.75 (679.5)	8.00 (203.2)	10.50 (266.7)	7.00 (177.8)	—
30"	39.25 (997.0)	5.125 (130.2)	7.75 (196.9)	36.75 (933.5)	8.00 (203.2)	20.50 (520.7)	7.00 (177.8)	19.50 (495.3)
35"	44.25 (1124.0)	8.00 (203.2)	12.00 (304.8)	41.75 (1060.5)	8.00 (203.2)	25.50 (647.7)	7.00 (177.8)	24.50 (622.30)
40"	49.25 (1251.0)	8.00 (203.2)	12.00 (304.8)	46.75 (1187.5)	8.00 (203.2)	30.50 (774.7)	7.00 (177.8)	29.50 (749.3)
50"	59.25 (1505.0)	8.00 (203.2)	12.00 (304.8)	56.75 (1441.5)	8.00 (203.2)	40.50 (1028.7)	7.00 (177.8)	39.50 (1003.3)
60"	69.25 (1759.0)	8.00 (203.2)	12.00 (304.8)	66.75 (1695.5)	8.00 (203.2)	50.50 (1282.7)	7.00 (177.8)	49.50 (1257.3)
80"	89.25 (2267.0)	8.00 (203.2)	12.00 (304.8)	86.75 (2203.5)	8.00 (203.2)	70.50 (1790.7)	7.00 (177.8)	69.50 (1765.3)
100"	109.25 (2775.0)	8.00 (203.2)	12.00 (304.8)	106.75 (2711.5)	8.00 (203.2)	90.50 (2298.7)	7.00 (177.8)	89.50 (2273.3)

NOTE: All numbers in parentheses are in millimeters.



Verniers

With the full scale vernier, readings can be obtained to $\frac{1}{10}$ of the main scale subdivision. A reading is observed by aligning the fluid meniscus with the nearest lower scale division. The distance required to accomplish this is measured on the vernier scale. This is added to the main scale for overall reading.



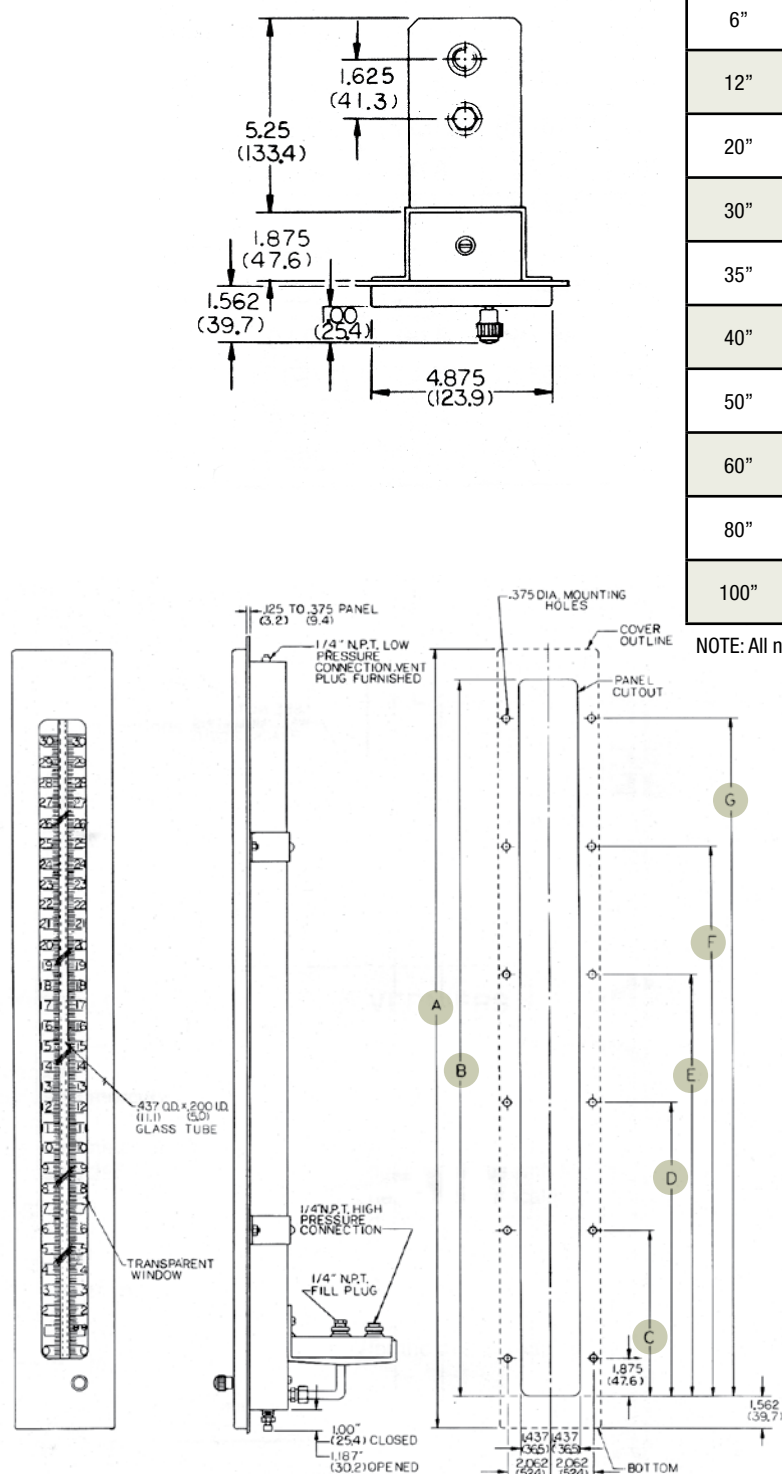
Model 30EBX25, 30EBX50, 30EFX25

Well Type Manometer (Specifications Continued)

Dimensions Table

Range	A	B	C	D	E	F	G
6"	14.375 (365.1)	11.250 (285.8)	5.625 (142.9)	9.375 (238.1)	—	—	—
12"	20.375 (517.5)	17.250 (438.2)	7.375 (187.4)	12.875 (327.0)	15.375 (390.5)	—	—
20"	28.375 (720.7)	25.250 (641.4)	7.375 (187.4)	17.875 (454.0)	23.375 (593.7)	—	—
30"	38.375 (974.7)	35.250 (895.4)	7.375 (187.4)	17.625 (447.7)	27.875 (708.0)	33.375 (847.7)	—
35"	43.375 (1101.7)	40.250 (1022.4)	7.375 (187.4)	20.125 (511.2)	32.875 (835.0)	38.375 (974.7)	—
40"	48.375 (1228.7)	45.250 (1149.4)	7.375 (187.4)	22.625 (574.7)	37.875 (962.0)	43.375 (1101.7)	—
50"	58.375 (1482.7)	55.250 (1403.40)	7.375 (187.4)	191.25 (485.8)	36.125 (917.6)	47.875 (1216.0)	53.375 (1355.7)
60"	68.375 (1736.7)	65.250 (1657.4)	7.375 (187.4)	66.75 (1695.5)	42.125 (1070.0)	57.875 (1470.0)	63.375 (1609.7)
80"	88.375 (2244.7)	85.250 (2165.4)	7.375 (187.4)	29.125 (739.8)	56.125 (1425.6)	77.875 (1978.0)	83.375 (2117.7)
100"	108.375 (2572.7)	105.250 (2673.4)	7.375 (187.4)	36.125 (917.6)	69.125 (1755.8)	97.875 (2486.0)	103.37 (2625.7)

NOTE: All numbers in parentheses are in millimeters.





Model 33KBX35

Multiple Tube Well Type Manometer

Model 33KBX35, Meriam multiple tube well type manometer, is a versatile instrument used in production testing, process measurement, and for laboratory data analysis. Up to six individual direct reading manometer systems are enclosed in individual compact cases. Each tube (system) can be used to measure pressure, vacuum, differential pressure, flow or liquid level. Complex pressure distributions or multiple pressure relationships are easily observed and readily compared.

Different manometer fluids of various densities can be used in each tube. The scales can be graduated as required. Flexibility for various application requirements is possible by design modifications. For example, raised wells can be furnished so positive and negative pressures can be indicated without changing the pressure connections.

The multiple tube type manometer is widely used for tank liquid level measurement. Many tanks located remotely on a tank farm are connected to the level gauges in the central control instrument panel. Special scales can be graduated duplex to indicate tank liquid depth in feet and inches, as well as tank capacity in gallons or pounds.

Model 33KBX35 Construction

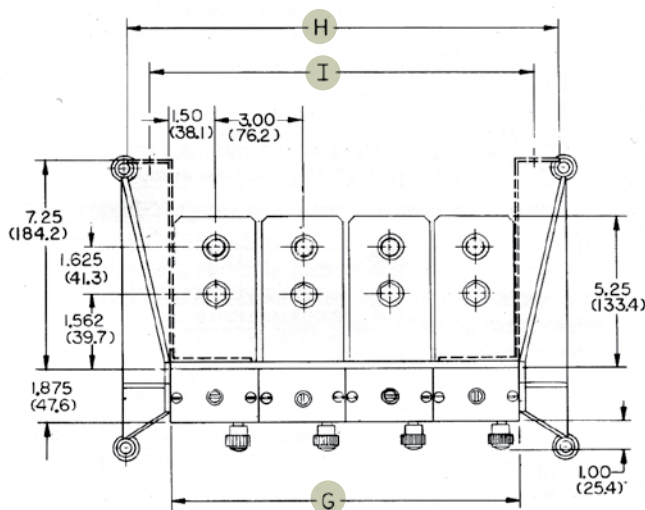
The indicating tubes are ruggedly housed in individual aluminum channels which are securely connected together. The end blocks are constructed of stainless steel. Each manometer has a large bore glass indicating tube (securely packed with leakproof seals) to give a bold, easy-to-read indicating column with any manometer fluid. Stainless steel fluid wells of large cross sectional area are fabricated to close dimensional tolerances. Individual measuring scales, with sharp black graduations on a non-glare white satin background, extend on both sides of the indicating column. Large numerals

at both ends of major graduations provide at-a-glance readability. Individual scale adjustment for zero reference is conveniently made on each tube of the instrument. The framed window provides protection from dirt and moisture. Each tube has the Meriam Stream-Flow drain valve to facilitate draining. The instrument finish is a durable black textured urethane. In addition to the table mounting (TM) style shown here, wall mounting (WM) and flush front mounting (FF) styles are also available.

Model 33KBX35

Multiple Tube Well Type Manometer

NOTE: This drawing shows two of the available mounting styles: Table Mount (TM), Wall Mount (WM). When ordering the customer must specify the type of mounting required.



Dimensions Table

Tube Quantity	F*		G	H	I
	Ranges 6" - 30"	Ranges 35" - 100"			
2	9.125 (231.8)	10.00 (254.0)	6.00 (152.4)	8.875 (225.5)	7.375 (187.3)
3	12.125 (308.0)	13.00 (330.2)	9.00 (228.6)	11.875 (301.6)	10.375 (263.5)
4	15.125 (384.2)	16.00 (406.4)	12.00 (304.8)	14.875 (377.8)	13.375 (339.7)
5	18.125 (460.4)	19.00 (482.6)	15.00 (381.0)	17.875 (454.0)	16.375 (415.9)
6	21.125 (536.6)	22.00 (558.8)	18.00 (457.2)	20.875 (530.2)	19.375 (492.1)

NOTE: All numbers in parentheses are in millimeters.

*F is distance between mounting feet on table mount model (see page 72)

Specifications

Scales

A – Inches and tenths

F – Centimeters & Millimeters

G – Inches & tenths of water using 827 Red Oil

I – Inches & fifths using 295 Red Fluid

Made to Order

Fluids

Nominal Sp. Gr.

Meriam 1000 Green Concentrate	1.000
Meriam 827 Red Oil	0.827
Meriam 100 Red Unity Oil	1.00
Meriam 190 Blue Fluid	1.90
Meriam 295 Red Fluid	2.95

Accessories

Fluid Check Valve	Z942K50
Line Trap	Z932A35
Line Trap	Z932R10
Moisture Trap	Z933A10
Valves & Piping	Z943AC300 (Steel)
	Z943AS300 (Stainless Steel)

Ordering Information

To order Meriam's 33KBX35 manometer custom-made to your specifications, please contact your Meriam sales representative with the following information:

- Range
- Mounting Style
- Safe Working Pressure
- Scale Description
- Number of Tubes

Fluid Requirements per Tube & Instrument Weight

Range	6	12	20	30	35	40	50	60	80	100
295 Fluid lbs.	.75	.75	.75	.75	.75	.75	.75	.75	1.5	1.5
Fl. Oz.	4	4	4	4	4	4	4	4	7	7
Weight Lbs. x No. Tubes	6	9	11	12	12.5	13	14	17	21	24

Specifications

Ranges 6, 12, 20, 30, 35, 40, 50, 60, 80, 100

Pressure Rating 350 psi

Mounting Wall, Table, Flush Front

No. of Tubes 3, 4, 5, 6

Body Construction Aluminum Channels

Wetted Parts Stainless Steel, Glass, Viton

Connections 1/4" NPTs

Scale Aluminum, nonglare white satin finish with black graduations

Case Finish Black textured urethane



Model 33KBX35

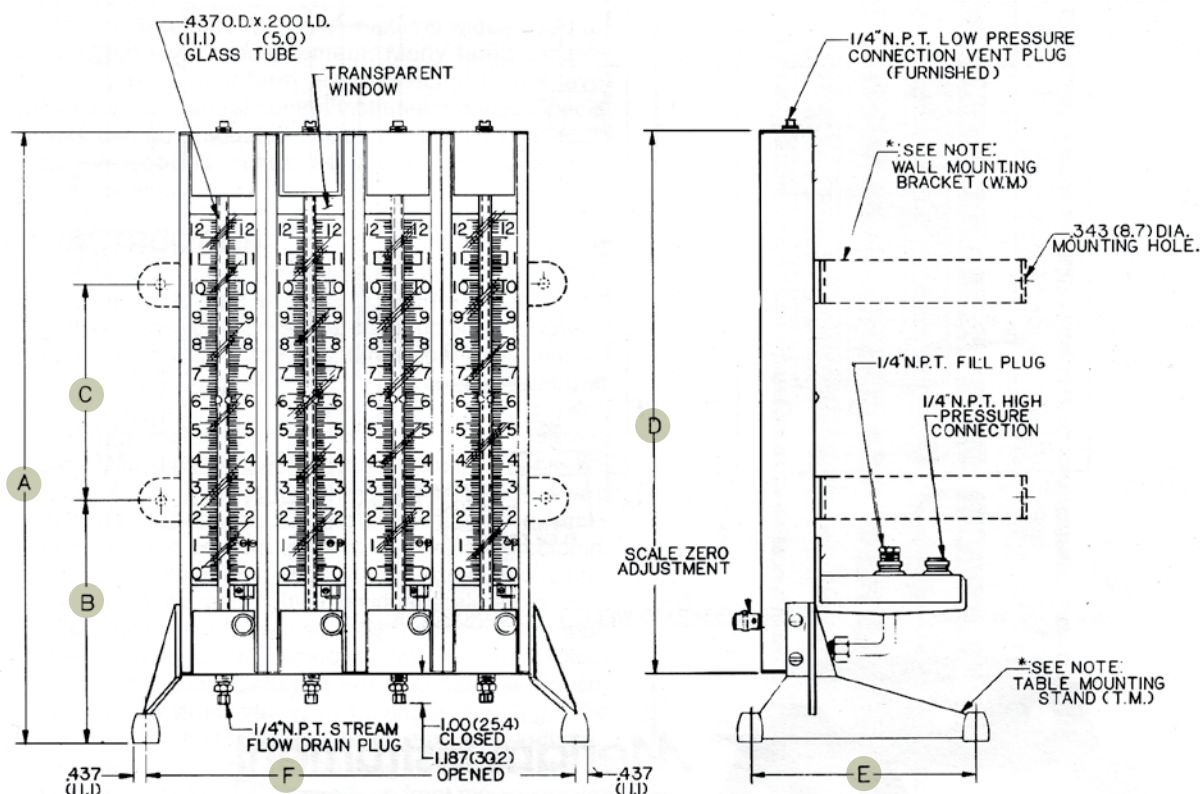
Multiple Tube Well Type Manometer

(Specifications Continued)

Dimensions Table

Range	A	B	C	D	E
6"	15.250 (387.4)	6.250 (158.9)	3.750 (95.3)	12.75 (323.9)	7.75 (196.9)
12"	21.250 (539.8)	8.00 (203.2)	5.50 (139.7)	18.75 (476.3)	7.75 (196.9)
20"	29.250 (743.0)	8.00 (203.2)	10.50 (266.7)	26.75 (679.5)	7.75 (196.9)
30"	39.250 (997.0)	8.00 (203.2)	20.50 (520.7)	36.75 (933.5)	7.75 (196.9)
35"	44.250 (1124.0)	8.00 (203.2)	25.50 (647.7)	41.75 (1060.5)	12.00 (304.8)
40"	49.250 (1251.0)	8.00 (203.2)	30.50 (774.7)	46.75 (1187.5)	12.00 (304.8)
50"	59.250 (1505.0)	8.00 (203.2)	40.50 (1028.7)	56.75 (1441.5)	12.00 (304.8)
60"	69.250 (1759.0)	8.00 (203.2)	50.50 (1282.7)	66.75 (1695.5)	12.00 (304.8)
80"	89.250 (2267.0)	8.00 (203.2)	70.50 (1790.7)	86.75 (2203.5)	12.00 (304.8)
100"	109.250 (2775.0)	8.00 (203.2)	90.50 (2298.7)	106.75 (2711.5)	12.00 (304.8)

NOTE: All numbers in parentheses are in millimeters.



Model 33KBX35

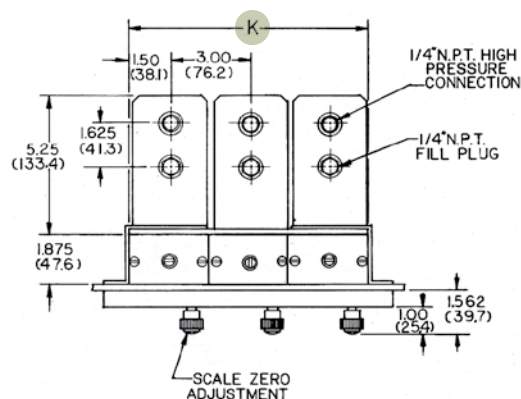
Multiple Tube Well Type Manometer

(Specifications Continued)

Dimensions Table 1

Range	A	B	C	D	E	F	G
6"	14.375 (365.1)	11.250 (285.8)	5.625 (142.9)	9.375 (238.1)	—	—	—
12"	20.375 (517.5)	17.250 (438.2)	7.375 (187.4)	12.875 (327.0)	15.375 (390.5)	—	—
20"	28.375 (720.7)	25.250 (641.4)	7.375 (187.4)	17.875 (454.0)	23.375 (593.7)	—	—
30"	38.375 (974.7)	35.250 (895.4)	7.375 (187.4)	17.625 (447.7)	27.875 (708.0)	33.375 (847.7)	—
35"	43.375 (1101.7)	40.250 (1022.4)	7.375 (187.4)	20.125 (511.2)	32.875 (835.0)	38.375 (974.7)	—
40"	48.375 (1228.7)	45.250 (1149.4)	7.375 (187.4)	22.625 (574.7)	37.875 (962.0)	43.375 (1101.7)	—
50"	58.375 (1482.7)	55.250 (1403.4)	7.375 (187.4)	19.125 (485.8)	36.125 (917.6)	47.875 (1216.0)	53.375 (1355.7)
60"	68.375 (1736.7)	65.250 (1657.4)	7.375 (187.4)	23.125 (587.4)	42.125 (1070.0)	57.875 (1470.0)	63.375 (1609.7)
80"	88.375 (2244.7)	85.250 (2165.4)	7.375 (187.4)	29.125 (739.8)	56.125 (1425.6)	77.875 (1978.0)	83.375 (2117.7)
100"	108.375 (2572.7)	105.250 (2673.4)	7.375 (187.4)	36.125 (917.6)	69.125 (1755.8)	97.875 (2486.0)	103.375 (2625.7)

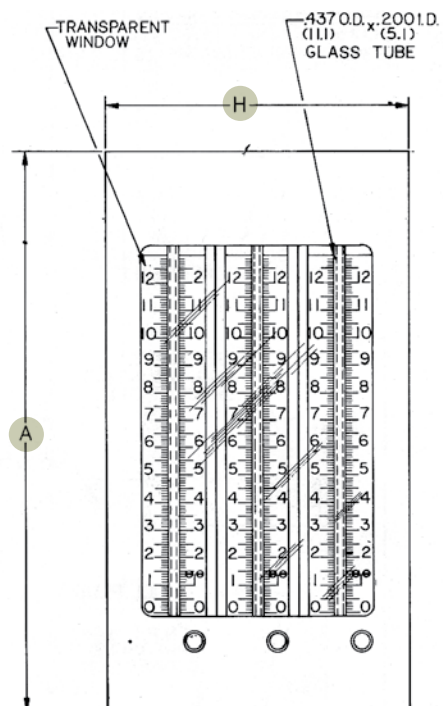
NOTE: All numbers in parentheses are in millimeters.



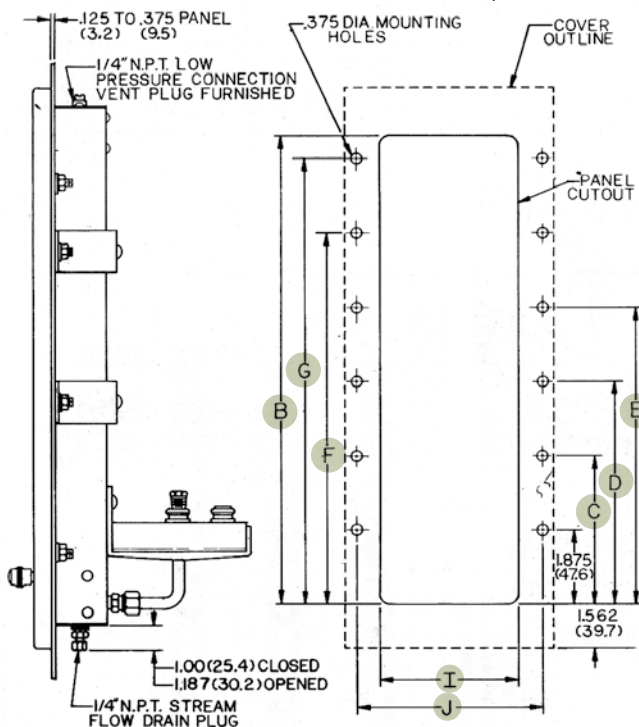
Dimensions Table 2

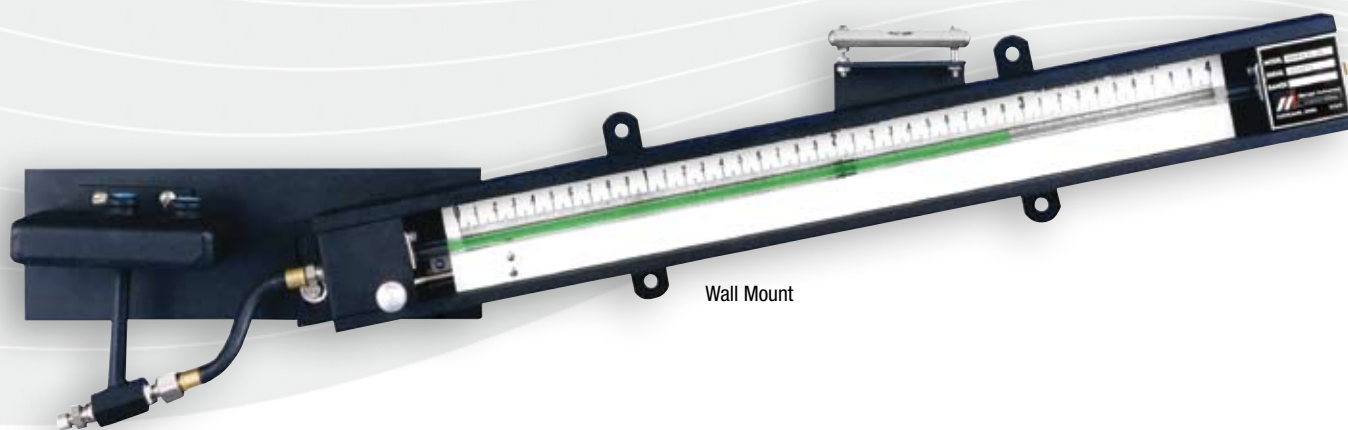
Tube Quantity	H	I	J	K
2	7.875 (200.0)	5.875 (149.2)	7.125 (181.0)	6.00 (152.4)
3	10.875 (276.2)	8.875 (225.4)	10.125 (257.2)	9.00 (228.6)
4	13.875 (352.4)	11.875 (301.6)	13.125 (333.4)	12.00 (304.8)
5	16.875 (428.6)	14.875 (377.8)	16.125 (409.6)	15.00 (381.0)
6	19.875 (504.8)	17.875 (454.0)	19.125 (485.8)	18.00 (457.2)

NOTE: All numbers in parentheses are in millimeters.



FINISH: Black textured urethane





Model 40HEX35

Inclined Tube Manometer

Model 40HEX35-WM inclined well type manometer for wall mounting is offered with scales from 20" to 60" long in differential ranges from 2" to 20". This economical and durable instrument fills the high sensitivity and accuracy requirements for low differential pressure ranges at operating pressures up to 350 PSI.

Inclined manometers provide greater readability by stretching a vertical differential along an inclined indicating column, giving more graduations per unit of vertical height and increasing the instrument's sensitivity and accuracy. Inclined manometers frequently have scales graduated to hundredths of an inch.

The Model 40HEX35 is often used to indicate differential across Meriam Laminar Flow Elements, Accutubes and Orifice Plates in gas flow applications.

Model 40HEX35 Construction

Model 40HEX35-WM inclined manometer has an aluminum channel with stainless steel end blocks into which a large bore, borosilicate glass tube is securely yoke packed with viton gaskets. The removable well is bolted to the back plate and connected to the glass tube through the lower end block. All pressure connections are 1/4" female pipe thread.

The scale with satin background, bold black figures, and precision graduations spans the full channel width behind the indicating tube. Scale and tube are protected by a transparent cover.

Each Model 40HEX35 is individually calibrated and the angle of inclination is set relative to the instrument level mounted above the channel.

The instrument finish is black textured urethane.

Fluid Requirements per Tube & Instrument Weight

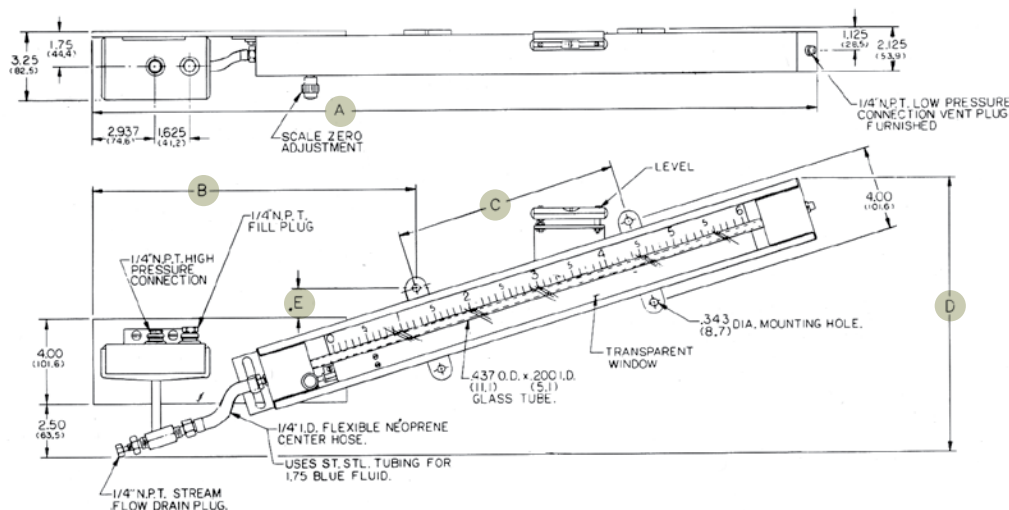
Scale Length	20"	30"	40"	50"	60"
Weight-lbs.	25	30	35	40	45
Fill Fluid Req.	4 oz.	4 oz.	4 oz.	4 oz.	4 oz.

Ranges and Scales

Scale Length	Ranges in inches with Scale graduated inches & hundredths	Ranges in inches with Scale graduated inches and fiftieths
20"	2", 4"	6", 8", 10"
30"	4", 6", 8"	10", 12", 14"
40"	4", 6", 8", 10"	12", 14", 16", 18", 20"
50"	4", 6", 8", 10", 12"	14", 16", 18", 20"
60"	6", 8", 10", 12", 14"	16", 18", 20"

Model 40HEX35

Inclined Tube Manometer



40" SCALE LENGTH

Range	A	B	C	D	E
4"	54.56 (1385.8)	15.93 (404.8)	30.50 (774.7)	10.31 (261.9)	.50 (12.7)
6"	54.37 (1381.1)	15.75 (400.0)	30.50 (774.7)	12.43 (315.9)	.687 (17.4)
8"	540.06 (1363.1)	15.62 (396.8)	30.50 (774.7)	14.62 (371.4)	.937 (23.8)
10"	53.68 (1333.5)	15.50 (393.7)	30.50 (774.7)	16.75 (425.4)	1.187 (30.1)
12"	53.12 (1349.4)	15.31 (388.9)	30.50 (774.7)	18.93 (481.0)	1.375 (34.9)
14"	52.50 (1333.5)	15.12 (384.1)	30.50 (774.7)	21.06 (534.9)	1.56 (39.6)
16"	51.68 (1312.8)	14.93 (379.4)	30.50 (774.7)	23.18 (588.9)	1.81 (46.0)
18"	50.75 (1289.0)	14.68 (373.0)	30.50 (774.7)	25.31 (642.9)	2.00 (50.8)
20"	49.68 (1262.01)	14.50 (368.3)	30.50 (774.7)	27.43 (696.9)	2.18 (55.5)

50" SCALE LENGTH

Range	A	B	C	D	E
4"	64.62 (1641.4)	16.00 (406.4)	40.50 (1281.7)	10.18 (258.7)	.375 (9.52)
6"	64.43 (1636.7)	15.87 (403.2)	40.50 (1281.7)	12.31 (312.7)	.562 (14.2)
8"	64.25 (1631.9)	15.75 (400.0)	40.50 (1281.7)	14.43 (366.7)	.750 (19.0)
10"	63.87 (1622.4)	15.62 (396.8)	40.50 (1281.7)	16.56 (420.6)	.937 (23.8)
12"	63.50 (1612.9)	15.50 (393.7)	40.50 (1281.7)	18.68 (474.6)	1.12 (28.5)
14"	63.00 (1600.2)	15.37 (390.5)	40.50 (1281.7)	20.81 (528.6)	1.31 (33.3)
16"	62.37 (1584.3)	15.25 (387.3)	40.50 (1281.7)	22.93 (582.6)	1.43 (36.5)
18"	61.68 (1566.8)	15.12 (384.1)	40.50 (1281.7)	25.06 (636.5)	1.62 (41.2)
20"	60.87 (1546.2)	14.93 (379.4)	40.50 (1281.7)	27.18 (690.5)	1.81 (46.0)

20" SCALE LENGTH

Range	A	B	C	D	E
2"	34.68 (881.04)	15.93 (404.81)	10.50 (266.7)	8.375 (212.72)	.50 (12.7)
4"	34.50 (876.3)	15.62 (396.87)	10.50 (266.7)	10.68 (271.46)	.937 (23.81)
6"	34.06 (865.18)	15.31 (388.93)	10.50 (266.7)	13.00 (330.2)	1.375 (34.92)
8"	33.31 (846.13)	14.93 (379.41)	10.50 (266.7)	15.25 (387.35)	1.812 (46.03)
10"	32.31 (820.74)	14.50 (368.3)	10.50 (266.7)	17.50 (444.5)	2.187 (55.56)

30" SCALE LENGTH

Range	A	B	C	D	E
4"	44.56 (1131.8)	15.81 (401.6)	20.50 (520.7)	10.43 (265.1)	.625 (15.87)
6"	44.31 (1125.4)	15.62 (396.8)	20.50 (520.7)	12.62 (320.6)	.937 (23.81)
8"	43.87 (1114.4)	15.43 (392.1)	20.50 (520.7)	14.87 (377.8)	1.25 (31.75)
10"	43.25 (1098.5)	15.18 (385.7)	20.50 (520.7)	17.06 (433.3)	1.50 (38.1)
12"	42.50 (1079.5)	14.93 (379.4)	20.50 (520.7)	19.25 (488.9)	1.81 (46.0)
14"	41.56 (1055.6)	14.62 (371.4)	20.50 (520.7)	21.43 (544.5)	2.06 (52.3)

60" SCALE LENGTH

Range	A	B	C	D	E
6"	74.50 (1892.3)	15.93 (404.8)	50.50 (1282.7)	12.25 (311.1)	.50 (12.7)
8"	74.31 (1887.5)	15.81 (401.6)	50.50 (1282.7)	14.31 (363.5)	.625 (15.8)
10"	74.06 (1881.6)	15.75 (400.0)	50.50 (1282.7)	16.43 (417.5)	.750 (19.0)
12"	73.68 (1871.6)	15.62 (396.8)	50.50 (1282.7)	18.56 (471.4)	.937 (23.8)
14"	73.31 (1862.1)	15.56 (395.2)	50.50 (1282.7)	20.62 (523.8)	1.06 (26.9)
16"	72.81 (1849.4)	15.43 (392.1)	50.50 (1282.7)	22.75 (577.8)	1.25 (31.7)
18"	72.25 (1835.1)	15.31 (388.9)	50.50 (1282.7)	24.81 (630.2)	1.37 (34.9)
20"	71.62 (1819.2)	15.18 (385.7)	50.50 (1282.7)	26.93 (684.2)	1.50 (38.1)

Specifications

Type Inclined Tube

Range 2", 4", 6", 8", 10", 12", 14", 16", 18", 20"

Pressure Rating 350 psig

Body Construction Aluminum Channel

Wetted Parts Material 304 SS

Connections 1/4" NPT pressure, 1/4" drain

Scale Finish White non-glare satin with black graduations

Finish Black Textured urethane

Scale Graduations Inches and Fiftieths, Inches and Hundredths or Special flow scales

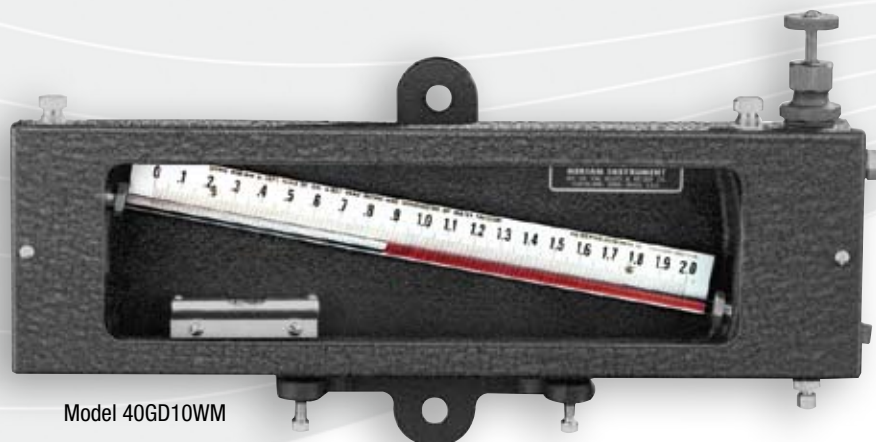
Ordering Information

To order Meriam's 40HEX35 manometer custom-made to your specifications, please contact your Meriam sales representative with the following information:

- Model
- Scale Length
- Differential Range

Accessories:

Check Valve Model Z942K50
 3 Valve & Piping Manifold (Steel) Z943AC300 STL
 3 Valve & Piping Manifold (SS) Z943AC300 ST.STL



Model 40GD10WM



Model 40GD10

Inclined Tube Manometer Draft Gauge

The Meriam Model 40GD10 Inclined Tube Manometer provides accurate measurement of low pressures, drafts, and small differential pressure changes, as in air or gas flow metering. It is available in six ranges and in both left zero and intermediate zero models. This design assures long-time accuracy and repeatability for accurate low pressure measurements. Each gauge is individually factory calibrated before shipment.

Model 40GD10 Construction

The liquid indicating column in the Model 40GD10 Manometer is inclined at an angle. This design greatly expands the vertical height reading range for extremely accurate readings. Through 2 inch range, graduations are 0.01 inches of water pressure using Meriam 827 Red Oil divided over 11 inches of scale. The 3 and 4 inch range have graduations 0.02 inches of water pressure using Meriam 827 Red Oil divided over 12 inches of scale. The instrument scale with sharp black graduations on a non-glare, satin-white background is located directly behind the indicating tube. Large numerals at major graduations provide at-a-glance readability. The indicating fluid used is Meriam Red Oil, Sp. Gr. 827 which provides maximum contrast with the scale and graduations. For greater range other Meriam indicating fluids may be used.

Two adjusting screws in the gauge mounting bracket and a double-hairline level simplify accurate leveling of the gauge. The liquid column is then easily set to scale zero. The scale zero is precisely adjusted by a plunger unit which displaces liquid in the instrument well. A Meriam Stream Flow drain valve is a standard feature.

The borosilicate glass tube is gland packed with viton seals. The transparent viewing window is framed in a sturdy cover which protects the gauge interior from dust. Cover and lightweight cast aluminum body are finished in baked black crackle enamel.

Model 40GD10

Inclined Tube Manometer Draft Gauge

Scale Graduations

Also Available
w/ raised zero as
special scales

Instrument Range	Scale Reading in Inches
½"	0...+0.5*
½"	-0.1...0...+0.4
1"	0...+1.0*
1"	-0.1...0...+0.9
1½"	0...+1.5*
1½"	-0.5...0...+1.0
1½"	-0.1...0...+1.4
2"	0...+2.0*
2"	-0.5...0...+1.5
3"	0...+3.0*
3"	-0.1...0...+2.0
4"	0...+4.0*
4"	-0.1...0...+3.0

*Standard scales, all other are special

Standard Scale Graduations
SCALE "N" Inches and hundredths of water pressure using Meriam Red Oil Specific Gravity 0.827
SCALE "O" Inches and fiftieths of water pressure using Meriam Red Oil Specific Gravity 0.827

Fluid Requirements & Instrument Weight

Ordering Information

To order Meriam's 40GD10 manometer custom-made to your specifications, please contact your Meriam sales representative with the following information:

- Mounting Style
- Range

Range Inches of Water (using 827)	½"	1"	1½"	2"	3"	4"
Range Inches of Water (using 100)	.605	1.209	1.814	2.418	3.628	4.837
Range Inches of Water (using 190)	1.15	2.3	3.45	4.61	6.91	9.21
Range Millimeters of Water (using 827)	12.7	25.4	38.1	50.8	76.2	101.6
Weight*	9#	9#	9#	9#	16#	16#
Fluid Ounces	4	4	4	4	4	4

*For Table Mounting add 9 pounds

Accessories

Z944A4	Venting Petcock
Z911A	Male Hose Nipple
Z912A	Table Mounting Stand
Z943AC300	Steel Valve & Piping Manifold
Z943AS300	S.S. Valve & Piping Manifold

Fluids Available

	Nominal Sp. Gr.
Meriam 827 Red Oil	.827
Meriam 100 Unity Oil	1.000
Meriam 190 Blue Fluid	1.90

Specifications

Type	Inclined Tube
Range	½, 1, 1½, 2, 3, 4, inches H ₂ O using Meriam 827 Red Oil
Pressure Rating	100 psig
Mounting	Wall, Table (Weather Proof construction available in wall mounting style)
Indicating Tube & Packing	Glass, Viton
Wetted Parts Material	Aluminum, Steel, Glass
Scale Finish	White non-glare satin with black graduations
Connections	¼" NPT



Models 34FB2TM (English Units) and 34MB2TM (Metric Units) Meriam Micromanometers

The Meriam Micromanometer is a sensitive manometer indicating pressures, vacuums, or differential pressures to 0.001" water pressure.

The unit is an accurate primary standard for checking and calibrating low pressure or vacuum gauges, draft gauges, inclined manometers and low pressure diaphragm or bellows controls. Although a calibrating standard, it may be used as a conventional manometer.

The Meriam Micromanometer is simple to operate, surpassing other precision pressure instruments. Readings on the micromanometer can be achieved quickly and accurately.

The true measurement of a given pressure, vacuum or differential pressure is the distance traveled by the instrument well from the initial calibrating position. All readings are taken with the meniscus positioned at the reference calibrating point. Because of this, the variation in the indicating tube inside diameter and indicating fluid level change in the well do not influence the accuracy of the instrument.

Micromanometer Construction

The Meriam Micromanometer is a special well type manometer design incorporating a well movable in the vertical plane by means of a precision lead screw. The vertical distance traveled by the instrument well is measured by means of an indicator pointer attached to the well, moving along a uniformly graduated scale and a micrometer wheel attached directly to the lead screw.

The lead screw is rotated by means of an operating wheel at the base of the instrument through a gear mechanism. The gear mechanism provides only the necessary torque to rotate the lead screw, preventing gear wear or play from affecting the accuracy of the measurement.

The glass indicating tube is rigidly supported within the instrument frame. The inclined tube portion of the indicating tube is at a minimum slope angle to give a high degree of sensitivity for accurate reading of the indicating fluid meniscus. An etched hair line on the inclined tube provides a fixed reference point for all measurements. The indicating tube is connected to the instrument well by means of a flexible tube.

All metal parts of the instrument in contact with the indicating fluid are fabricated of stainless steel. The exterior surfaces are finished in a fine, black, baked crackle. A clear plastic cover in a detachable cover frame gives full vision of all scales and protects the unit from dust and moisture.

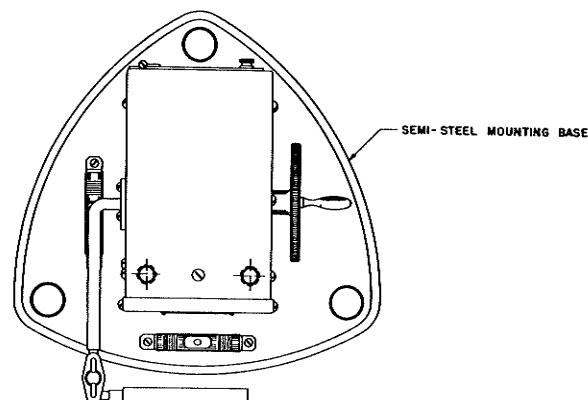
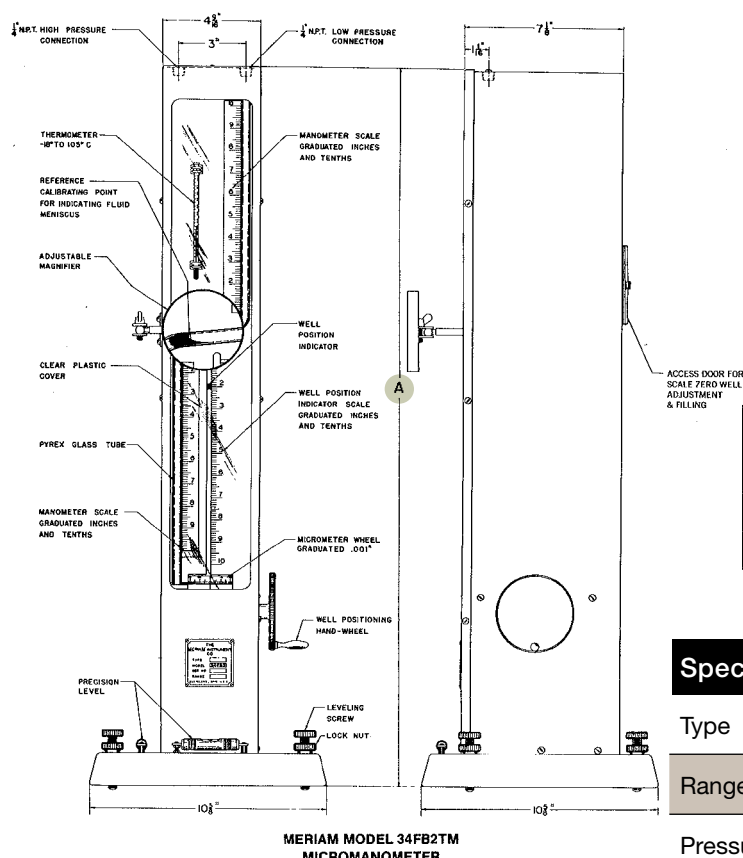
For the initial adjustment of the indicating fluid meniscus in the sloping portion of the indicating tube, the instrument well is adjustable vertically, independent of the operating lead screw. A locking screw is provided on the well adjustment mechanism to ensure the well setting after adjustment.

Standard 1/4" N.P.T. pressure connections are provided at the top of the unit. Independent connections permit micromanometer operation under pressure, vacuum or differential pressure conditions.

The instrument unit is assembled to a heavy cast iron base. Three leveling screws are provided in the base for leveling the unit, the level position being indicated by two individual levels.

34FB2™ & 34MB2™

Meriam Micromanometers



Range Inches of Water	A	Approx. Shipping Weight
10	36"	145 lbs.
20	60"	200 lbs.

Range mm	A	Approx. Shipping Weight
254	914 mm	65.8 kg
508	1524 mm	90.7 kg

Specifications

Type	Micromanometer	
Range	10", 20"	
Pressure Rating	20 PSIG	
Mounting	Table stand with two levels and leveling screws	
Indicating Tube & Packing	Borosilicate glass and neoprene	
Body Construction	Aluminum Frame	
Wetted Parts Material	Stainless Steel	
Scale Finish	White non-glare, black graduations	
Finish	Baked Black Crackle	
Scale Graduations	Model 34FB2: English Units Scale: Inches & Tenths Micrometer Wheel: .001"	Model 34MB2: Metric Units Scale: Millimeters Micrometer Wheel: 0.01 mm
Special Features	Micrometer wheel for readings to .001" or 0.1 mm Magnifier for easy reading Thermometer mounted in case	
Weight	10" range – 145 lbs. 20" range – 200 lbs.	
Indicating fluid	Meriam 1000 Green Concentrate with water; 4 ounces required to fill (initial fill supplied with instrument)	

Ordering Information

To order a Meriam micromanometer custom-made to your specifications, please contact your Meriam sales representative with the following information:

- Range
- Indicate English or Metric Units

Accessories

Model Z971 A3 Pressure-Vacuum Variator



Manometer Accessories, Indicating Fluids & Pressure Sources

Accessories

Pressure / Vacuum Variator - 971A3

This can produce -10 PSIG to 30 PSIG (-.69 to 2.0 Bar) or 12" to 20" Hg (300 to 500mm Hg) vacuum. Max. Pressure is 20 PSIG (1.3 Bar) when used with other pressure sources. A table stand is available for bench top usage. Connections are 1/4" FNPT.

Hand Pumps - B34686 (pressure); B34700 (vacuum)

These are available in 2 models, Pressure or Vacuum. The pressure pump generates a positive pressure up to 145 PSIG, while the vacuum pump generates a vacuum of 650mm Hg. Both units feature a needle bleed valve and a multi-turn vernier, which provides precise adjustment. Connections are 1/8" FNPT.

Line Traps - 932 Series

Line Traps are an inexpensive means to keep manometers and indicating fluids clean and are recommended for all installations. When installed in the line ahead of the manometer they permit entrained solids to settle out before they reach the manometer. When used with gases or vapors they trap moisture.

Sight Feed Bubblers - 931 Series

Bubblers provide a visual indication of flow by showing air or gas bubbles discharging from a dip tube immersed in a liquid in a transparent bowl. The bubble rate is controlled by a stainless steel needle valve in the head casting.

Bubblers and Line Traps are available with heavy wall transparent bowls made of either plastic or glass. They are rated at 100 PSI and 50 PSI respectively. Either a ring type or strap type configuration is available for securing the bowl to the head.

Float Check Valve - 942K50 (standard); 942KW50 (indicating fluid under water)

This is a most valuable accessory small enough to be installed on each tube of a multiple tube manometer, yet fully dependable. Normal operation of the manometer is not impaired by vertical installation of the float check valve. If pressure increases beyond the instrument range, the valve closes preventing the fluid from leaving the manometer. The valve opens when normal pressure is restored. Maximum operating pressure is 500 PSIG.

Return Wells - 934H50

These are stainless steel and for use on manometers with operating pressures up to 500 PSIG. The indicating fluid is trapped during manometer over pressure. Fluid will drain back into the manometer when normal pressure is returned.

Seal Pots - 953AA75

Meriam Seal Pots are used to provide a constant liquid head on each side of a flow meter involving steam or other condensable vapors. They also isolate the instrument from the process with a sealing liquid.

All Meriam Seal Pots are fabricated from grade A seamless steel pipe. Each unit is cold hydraulic tested to over twice its rated working pressure. All connections are 1/2" NPT furnished with solid steel plugs. The finish is red oxide primer.

Manometer Accessories & Indicating Fluids

Fluids



Meriam indicating fluids are available for a wide variety of needs. Low freeze point fluids are available for cold weather climates and outdoor use. High temperature fluids are also available for higher temperature environments. Indicating fluid specific gravity (density) options range from 0.827 Red Oil to 2.95 Red Fluid. The higher specific gravity fluids can be used to increase the measurement range of any glass tube manometer.

Ordering Information

To order any one of Meriam's indicating fluids, please contact your Meriam sales representative with the fluid's corresponding order number (see chart).

Trade Name	Specific Gravity	Description	Order No.	Quantity
827 Red Oil	0.827 @ 60°F Compared to H ₂ O @ 4°C	A highly refined mineral seal oil, non-corrosive. Temp Range: 40°F to 120°F	923RO-1 923RO-2 923RO-3 923RO-4	4 oz. 1 pt. 1 qt. 1 gal.
1000 Green Concentrate	1.000	For high precision work. Non-corrosive, low surface tension. Not for use under freezing conditions (see 922WA-LFP below). Concentrated to mix with water.	922WA-1 922WA-2	3 oz. 15 oz.
1000-LFP Low Freezing Point Green Concentrate	1.00	Similar to Meriam 1000 Green Concentrate, however, fluid is premixed with ethylene glycol. Temp Range: 0°F to 120°F	922WA-LFP	1 pt. 1 gal.
1000 Certified Premixed Green Concentrate	1.000	Premixed blend of Green Concentrate & Distilled water with certificate of specific gravity value. Temp Range: 40°F to 120°F	922WA-SP	1 qt. 1 gal.
100 Red Unity Oil	1.00 @ 73°F Compared to H ₂ O @ 4°C	A mineral seal oil for general use where water is unsuitable. Temp Range: 30°F to 100°F	923RU-1 923RU-2 923RU-3 923RU-4	4 oz. 1 pt. 1 qt. 1 gal.
104 Hi-Vac Red Fluid	1.04 @ 83°F Compared to H ₂ O @ 4°C	Specially suited for high vacuum applications. Teflon gaskets are required. Insoluble in water, non-corrosive. Temp Range: 20°F to 150°F	929DB-1 920DB-2 929DB-3 929DB-4	4 oz. 1 pt. 1 qt. 1 gal.
190 Blue Fluid	1.90 @ 55°F Compared to H ₂ O @ 4°C	Non-Freezing, low viscosity. Insoluble in water, clear interface. Temp Range: -30°F to 120°F	923BFL-1	2 oz.
295 No. 3 Red Fluid	2.95 +/- 0.002 @ 78°F Compared to H ₂ O @ 4°C	Heavy Bromide, Non-Flashing. Highly corrosive to steel & aluminum. Temp Range: 40°F to 100°F	924BA-1 924BA-1#Exp 924BA-3# 924BA-3#Exp	1 lb. 1 lb. export 3 lb. 3 lb. export
Cleaning Fluid	—	Manometer Cleaning Fluid Alkaline & Detergents	915E	1 gal.

Meriam's hand pumps can be used with a variety of products such as our manometers, Model 35EE Meri-Cal, MFT Series, M2 Series Smart Manometers and the M1 Series Digital Manometer/Calibrators. See pages 54-55 for more information.



MH-10KT Hydraulic Calibration Pump

- 0-10,000 psi (700 Bar)
- Compatible with most hydraulic fluids, oils, and water
- Connections (2 ports) ¼ inch NPT/BSP
- Weight 3 lbs

MP-100KT Calibration Pump

- MV-100 0-28" Hg (depends on barometric pressure)
- MP-100 0 to 100 psi (including and not limited to an inch of water)
- Connections (2 ports) ⅜ inch NPT
- 2ft hose and ¼ inch fitting

M-600KT Combo Pneumatic Calibration Pump

- Vacuum 28" Hg to pressure 600 psi (combination pump)
- Compatible with all gauges and calibrators
- Connections (2 ports) ¼ inch and ⅜ inch NPT/BSP
- Weighs 2 lbs