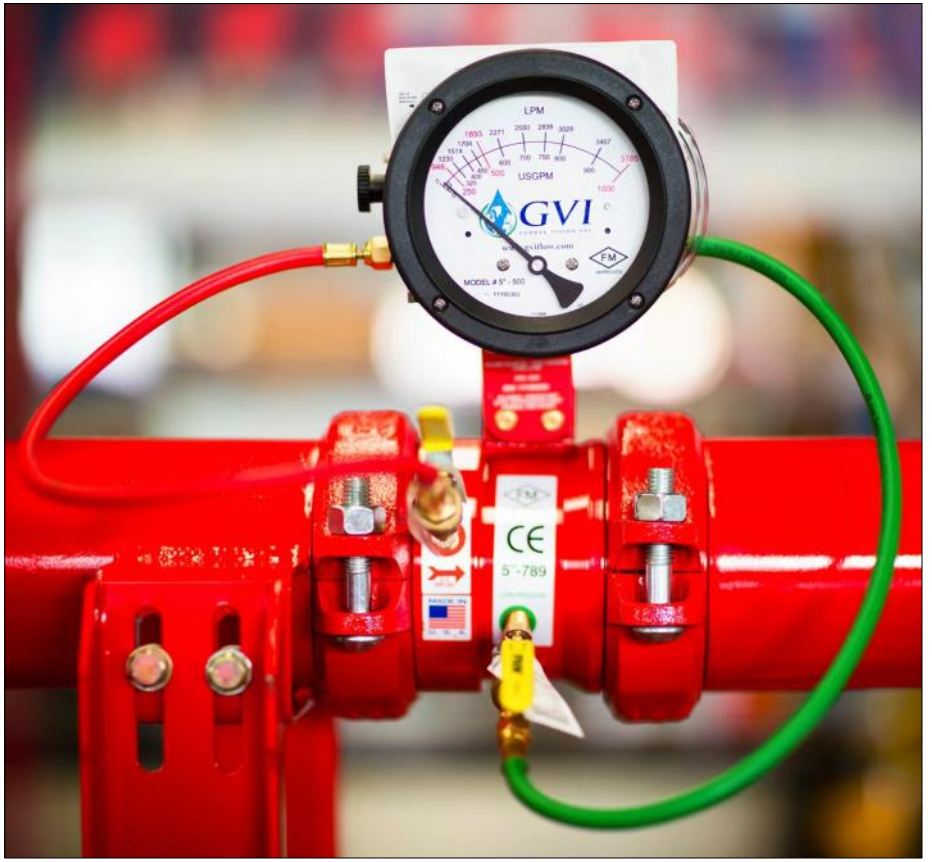


# GVI

GLOBAL VISION INC

# GVI Fire Pump Test Meters

## The industry leader in flow meters




FM APPROVED

Global Vision Inc 8730 Jefferson Highway
Osseo, Minnesota 55369 USA tel: 763-391-0990 fax: 763-391-7668
Www.gviflow.com info@gviflow.com

Made In the U.S.A.

# Why choose GVI?

- FM Approved flow meters
- Patented accuracy of 0.5%
- Friction loss less than 1 psi
- Full 5 Year Warranty
- FM Approved Digital and Glycerin gauges
- Substantial inventory for quick shipping

With continuous improvements and cutting edge technology, GVI has just released our most accurate flow meter ever.

This is why GVI is the most requested and most specified fire meter in the world.

The GVI gauge is used in more fire training centers worldwide than all flow test meter competitors combined.

After using GVI flow meter for the first time, you will understand why we are number 1.




Accuflow Venturi

Patent

#D764,630S








Customized and special projects

# FM Approved Glycerin Gauge




Adding glycerin reduces the harmonic vibrations that transmit to the needle during a flow test.

These vibrations can make it difficult to read the needle, and also creates stress on the internal components and gears.

**<u>The GVI glycerin meter delivers</u>:**

- Superior accuracy
- consistent no bounce readings
- Less internal damage / stress
- longer lifespan
- greater reliability

Non-toxic, Non-hazardous
Worldwide shipping available

FM APPROVED

## You've Never Run a Pump Test Like This

# Digital 4-20ma transmitter




The Fire pump flow test has never been easier. The new FM Approved Digital gauge from GVI allows users to easily read the display.

- Temp: 32f - 140f
- Power: 12-32 VDC
- 2 wire 4-20 ma
- Backlit display
- Reverse polarity protection
- Optional battery pack available




FM APPROVED

Transmitting to a compatible controller will also allow options for capturing flow curve and additional data.






Display units in: GPM / LPM / m3H

## Calibration:

The unit is factory calibrated and has no user adjustments for calibration. The assembly uses a microprocessor to perform an 11 point square root linearization algorithm.

# Production

GVI produces all venturis from domestic U.S. thick wall tube. This heavy duty steel ensures our venturi will be around years longer than the thinner, lightweight alternatives.



## CNC Machines

With 3 CNC lathes & a new Swiss machine at GVI, lead times are in days, not weeks or months, and quality control Is guaranteed.






## Robotic Welding

GVI has added robotic welders to our production line. Not only does this decrease lead times, it also ensures flanged units have the perfect weld every time.



# Testing



With tolerances of .005 the results are a perfect venturi every time



After machining, every venturi is inspected with ISO certified test equipment




## NIST METER TESTING

Every GVI gauge undergoes advanced computerized testing before leaving the factory. These tests include leakage, calibration, and accuracy tests.

Upon successful testing the gauge is issued an NIST certificate tied specifically to the serial number on the dial face.

The certification is stored in a plastic pouch connected to the gauge. This pouch also illustrates the typical installation and the operating instructions for the fire pump flow test.

Contact your GVI rep for duplicate sheets or updated certifications.

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| Line Size | Pump GPM | Meter Range Min. & Max. GPM | Meter Range Min. & Max. LPM | Model Number Grooved | Model Number Butt Weld | Model Number 150# Flanged | Model Number <Threaded> *300# FLANGED* |
|---|---|---|---|---|---|---|---|
| **1-1/4" | 25 | 12.5 – 50 | 47 - 189 | * 1.25"-25-G | 1.25"-25-B | * 1.25"-25-F | 1.25"-25-T |
| | | | | | | | |
| **2" | 50 | 25 – 100 | 95 - 379 | * 2"-50-G | 2"-50-B | * 2"-50-F | 2"-50-T |
| | | | | | | | |
| **2-1/2" | 100 | 50 - 200 | 189 - 757 | 2.5"-100-G | 2.5"-100-B | 2.5"-100-F | *2.5"-100-F3 |
| | | | | | | | |
| 3" | 150 | 75 – 300 | 284 - 1136 | 3"-150-G | 3"-150-B | 3"-150-F | *3"-150-F3 |
| 3" | 200 | 100 – 400 | 379 - 1514 | 3"-200-G | 3"-200-B | 3"-200-F | *3"-150-F3 |
| | | | | | | | |
| 4" | 250 | 125 – 500 | 473 - 1893 | 4"-250-G | 4"-250-B | 4"-250-F | *4"-250-F3 |
| 4" | 300 | 150 – 600 | 568 - 2271 | 4"-300-G | 4"-300-B | 4"-300-F | *4"-300-F3 |
| 4" | 400 | 200 – 800 | 757 - 3028 | 4"-400-G | 4"-400-B | 4"-400-F | *4"-400-F3 |
| 4" | 450 | 225 – 900 | 852 - 3407 | 4"-450-G | 4"-450-B | 4"-450-F | *4"-450-F3 |
| | | | | | | | |
| 5" | 450 | 225 – 900 | 852 - 3407 | 5"-450-G | 5"-450-B | 5"-450-F | *5"-450-F3 |
| 5" | 500 | 250 – 1000 | 946 - 3785 | 5"-500-G | 5"-500-B | 5"-500-F | *5"-500-F3 |
| 5" | 750 | 375 – 1500 | 1420 - 5678 | 5"-750-G | 5"-750-B | 5"-750-F | *5"-750-F3 |
| | | | | | | | |
| 6" | 500 | 250 – 1000 | 946 - 3785 | 6"-500-G | 6"-500-B | 6"-500-F | 6"-500-F3 |
| 6" | 750 | 375 – 1500 | 1420 - 5678 | 6"-750-G | 6"-750-B | 6"-750-F | 6"-750-F3 |
| 6" | 1000 | 500 – 2000 | 1893 - 7570 | 6"-1000-G | 6"-1000-B | 6"-1000-F | 6"-1000-F3 |
| 6" | 1250 | 625- 2500 | 2366 - 9462 | 6"-1250-G | 6"-1250-B | 6"-1250-F | 6"-1250-F3 |
| | | | | | | | |

# Standard Model List

| Line Size | Pump GPM | Meter Range Min. & Max. GPM | Meter Range Min. & Max. LPM | Model Number Grooved | Model Number Butt Weld | Model Number Flanged |
|---|---|---|---|---|---|---|
| 8” | 1000 | 500 – 2000 | 1893 - 7570 | 8”-1000-G | 8”-1000-B | 8”-1000-F |
| 8” | 1250 | 625 – 2500 | 2366 - 9462 | 8”-1250-G | 8”-1250-B | 8”-1250-F |
| 8” | 1500 | 750 – 3000 | 2839 - 11356 | 8”-1500-G | 8”-1500-B | 8”-1500-F |
| 8” | 2000 | 1000 – 4000 | 3785 - 15142 | 8”-2000-G | 8”-2000-B | 8”-2000-F |
| 8” | 2500 | 1250 – 5000 | 4731 - 18925 | 8”-2500-G | 8”-2500-B | 8”-2500-F |
| 8” | 3000 | 1500 – 6000 | 5678 - 22712 | 8”-3000-G | 8”-3000-B | 8”-3000-F |
| | | | | | | |
| 10” | 1500 | 750 – 3000 | 2839 - 11356 | 10”-1500-G | 10”-1500-B | 10”-1500-F |
| 10” | 2000 | 1000 – 4000 | 3785 - 15142 | 10”-2000-G | 10”-2000-B | 10”-2000-F |
| 10” | 2500 | 1250 – 5000 | 4731 - 18925 | 10”-2500-G | 10”-2500-B | 10”-2500-F |
| 10” | 3000 | 1500 – 6000 | 5678 - 22712 | 10”-3000-G | 10”-3000-B | 10”-3000-F |
| 10” | 3500 | 1750 – 7000 | 6624 - 26495 | 10”-3500-G | 10”-3500-B | 10”-3500-F |
| 10” | 4000 | 2000 – 8000 | 7570 - 30283 | 10”-4000-G | 10”-4000-B | 10”-4000-F |
| 10” | 4500 | 2250 – 9000 | 8518 - 34068 | 10”-4500-G | 10”-4500-B | 10”-4500-F |
| | | | | | | |
| 12” | 2500 | 1250 – 5000 | 4731 - 18925 | * 12”-2500-G | * 12”-2500-B | * 12”-2500-F |
| 12” | 3000 | 1500 – 6000 | 5678 - 22712 | * 12”-3000-G | * 12”-3000-B | * 12”-3000-F |
| 12” | 3500 | 1750 – 7000 | 6624 - 26495 | * 12”-3500-G | * 12”-3500-B | * 12”-3500-F |
| 12” | 4000 | 2000 – 8000 | 7570 - 30283 | * 12”-4000-G | * 12”-4000-B | * 12”-4000-F |
| 12” | 4500 | 2250 – 9000 | 8518 - 34068 | * 12”-4500-G | * 12”-4500-B | * 12”-4500-F |
| 12” | 5000 | 2500 - 10000 | 9464 - 37854 | 12”-5000-G | 12”-5000-B | 12”-5000-F |
| | | | | | | |

**1026 Carbon Steel**

**316 stainless**

**Duplex S.S.**

**Super Duplex**

**Monel**

**NiAlumBrz**

**90-10 Cu-Ni**

**Aluminum**

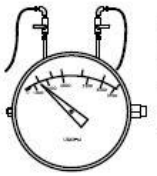
**Brass**

**Epoxy**

## CONSTRUCTION & SPECIFICATIONS

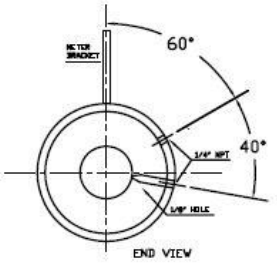
| | |
|---|---|
| MATERIALS: | 1026 MACHINED CARBON STEEL |
| VALVES: | 1/4" BRASS BALL |
| FLANGE OPT: | 150# ANSI B 16.5<br>300# ANSI B 16.5 |
| ID TAG: | ALUMINUM |

## METER DATA

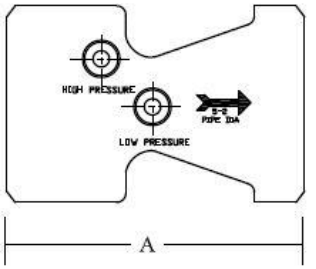


| | |
|---|---|
| CONSTRUCTION: | ALUMINUM BODY |
| OPERATION: | DIAPHRAGM (BUNA CONVOLUTED) |
| TEMPERATURE: | 180°F / 80°C |
| PRESSURE: | 500 PSIG - 3450 KPA |
| APPROX. WEIGHT: | 3.75 LBS (1.7 KGS) |

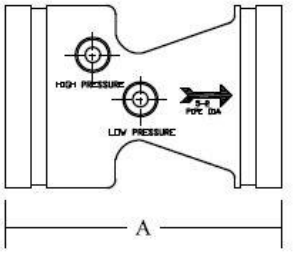
4" DIAL STANDARD - 6" DIAL AVAILABLE



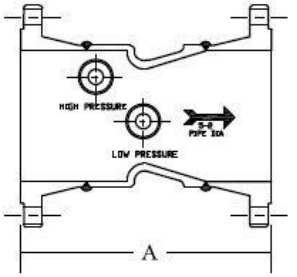

BUTT WELD / GROOVED




BUTT WELD




GROOVED




FLANGED

| SIZE | BUTT WELD & GROOVED | | 150 # FLANGED | | 300# FLANGED | |
|---|---|---|---|---|---|---|
| | "A" DIM | APPROX. WEIGHT | "A" DIM | APPROX. WEIGHT | "A" DIM | APPROX. WEIGHT |
| 1-1/4" | 4.875 | 10 lbs. | ——— | ——— | ——— | ——— |
| 2" | 5.000 | 11 lbs. | | 25 lbs. | ——— | ——— |
| 2-1/2" | 4.000 | 11 lbs. | 9.250 | 25 lbs. | 10.000 | 35 lbs. |
| 3" | 4.000 | 13 lbs. | 9.375 | 40 lbs. | 10.250 | 50 lbs. |
| 4" | 5.375 | 15 lbs. | 11.375 | 50 lbs. | 12.125 | 65 lbs. |
| 5" | 6.000 | 20 lbs. | 13.000 | 60 lbs. | 13.750 | 80 lbs. |
| 6" | 7.000 | 25 lbs. | 14.000 | 75 lbs. | 14.750 | 115 lbs. |
| 8" | 7.250 | 35 lbs. | 15.250 | 120 lbs. | 16.000 | 175 lbs. |
| 10" | 8.000 | 60 lbs. | 16.000 | 170 lbs. | 17.250 | 225 lbs. |
| 12" | 10.000 | 65 lbs. | 19.000 | 225 lbs. | 20.250 | 345 lbs. |

# Replacement Hoses



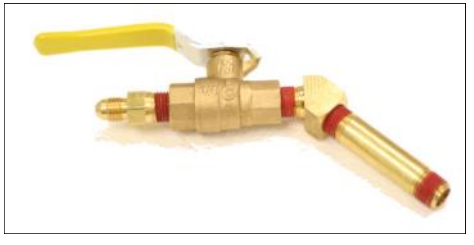
## Replacement Hoses with Full Brass Fittings

| GREEN HOSE | | RED HOSE | |
|---|---|---|---|
| 24-FPH-F-GRN | 2' Green fire pump hose with brass fittings | 24-FPH-F-RED | 2' Red fire pump hose with brass fittings |
| 36-FPH-F-GRN | 3' Green fire pump hose with brass fittings | 36-FPH-F-RED | 3' Red fire pump hose with brass fittings |
| 60-FPH-F-GRN | 5' Green fire pump hose with brass fittings | 60-FPH-F-RED | 5' Red fire pump hose with brass fittings |
| 120-FPH-F-GRN | 10' Green fire pump hose with brass fittings | 120-FPH-F-RED | 10' Red fire pump hose with brass fittings |
| 180-FPH-F-GRN | 15' Green fire pump hose with brass fittings | 180-FPH-F-RED | 15' Red fire pump hose with brass fittings |



## Replacement Hoses WITHOUT Brass Fittings

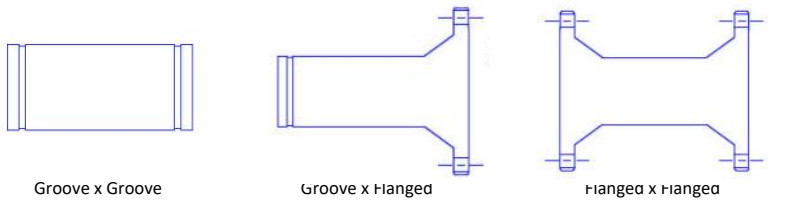
| GREEN HOSE | | RED HOSE | |
|---|---|---|---|
| 24-FPH-GRN | 2' Green fire pump hose only | 24-FPH-RED | 2' Red fire pump hose only |
| 36-FPH-GRN | 3' Green fire pump hose only | 36-FPH-RED | 3' Red fire pump hose only |
| 60-FPH-GRN | 5' Green fire pump hose only | 60-FPH-RED | 5' Red fire pump hose only |
| 120-FPH-GRN | 10' Green fire pump hose only | 120-FPH-RED | 10' Red fire pump hose only |
| 180-FPH-GRN | 15' Green fire pump hose only | 180-FPH-RED | 15' Red fire pump hose only |



Brass Fitting Assembly

BFA1 - Single assembly
BFA2 - Brass fitting pair

## GVI Spooling Pieces



# Flow meter accessories




Standard Dry
Analog gauge




Glycerin filled
gauge



Hard storage case




Digital gauge
Local Display & 4-20 ma
transmitter



Digital Gauge
4-20 ma transmitter only
to pump controller




Digital battery pack

Contact your GVI representative for additional information on replacement parts and accessories.



Ultrasonic Flow Meter



Bleeder valves



instruction pouch




ENGRAVED I.D. tag



Auto air vent



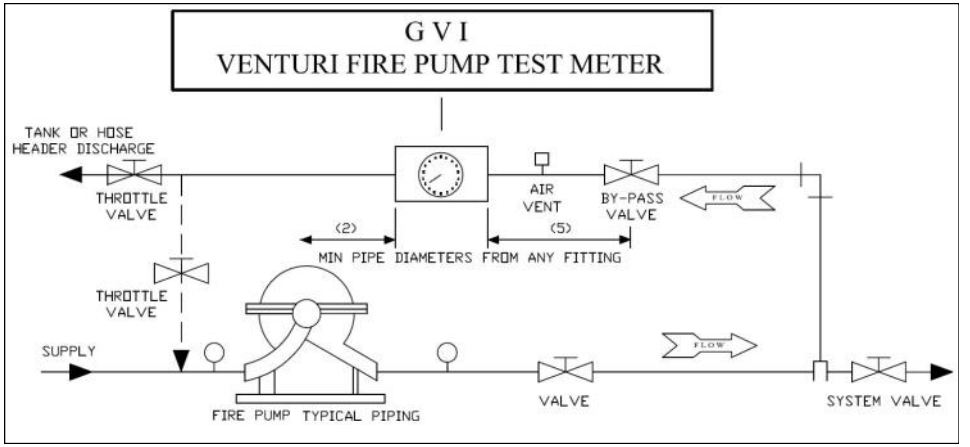
Clear bleed hose

# Installation / Operation

1. Close the system valve
2. Open the by-pass valve and throttle valve
3. Purge air from meter as follows:

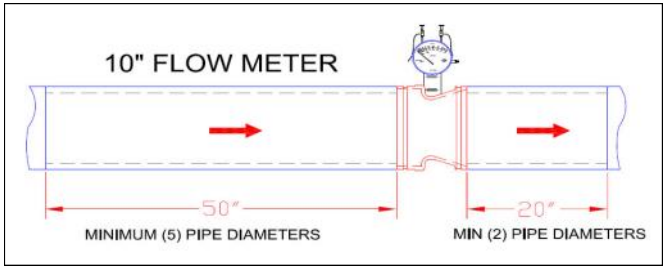
   - Open Ball valve on red and green hoses
   - Open the high side bleeder knob until a steady stream of water is coming from the Clear hose
   - Close high pressure bleeder knob
   - Repeat for low pressure side
   - Ensure both bleeder knobs are closed

4. Start fire pump, read meter in gpm/lpm/m3h
5. Refer to pump requirements and adjust throttle valve for this requirement
6. After test, open system valve and close the by-pass and throttle valves

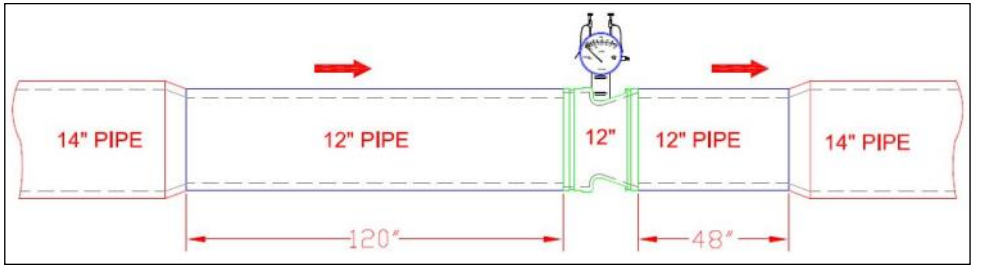



Typical flow loop configuration

Can be installed vertically or horizontally



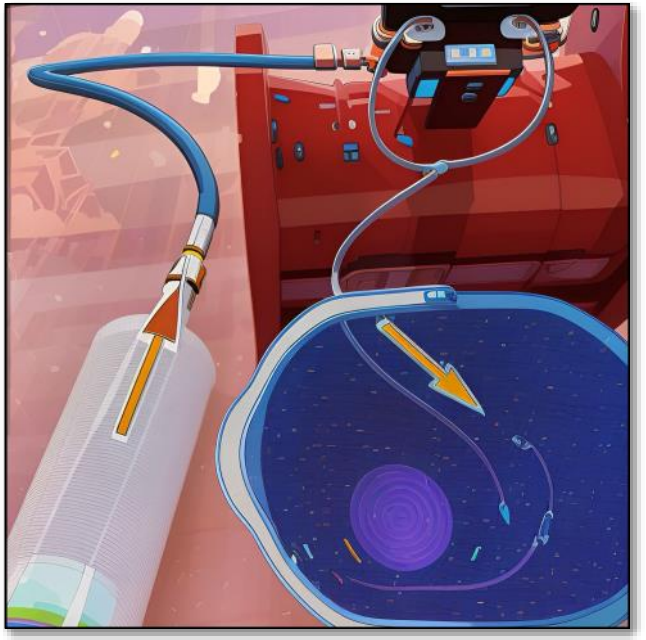

Typ. Install with 5/2 pipe diameters.
Clear of obstructions, valves, or bends.




If reducers are used, lengthen the min pipe dia.
To 10/4 to ensure accuracy is maintained.

# Preventative Maintenance

## Flow Meter Flush Kit



Flushing the GVI flow meter with clean water after every flow test is an essential P/M. Removing any debris or buildup will ensure the gauge stays in perfect working condition.

## Protective Gauge Cover




Keep your gauge protected when not in use. The GVI cover will help insulate against hot or cold environments, while preventing sand, dust, or the sun from causing gauge damage.




INSTRUCTIONS

GVIFLOW.COM

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