

FLOWMETER - Series 7920

DESCRIPTION

The 7920 flowmeters provide the most accurate indication and precise control of fluids available for a wide range of applications. This versatile meter is functionally and dimensionally interchangeable with other current designs while incorporating many innovative features.

All 7920 glass metering tubes have integral float guides to assure the accuracy of $\pm 5\%$ of full scale. Glass and stainless steel floats are standard. The meters are available in a wide range of flows.

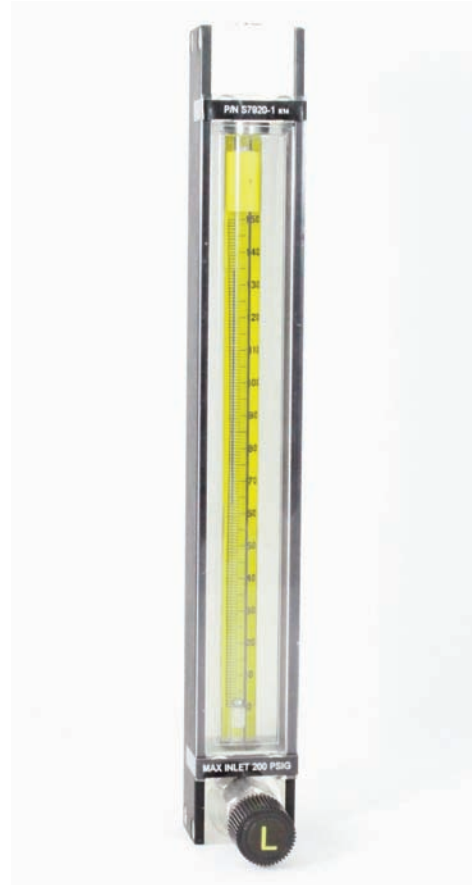
Front window incorporates a 1.5 X scale magnification factor for more accurate tube reading. End seals in the design are direct-acting and nonrotating for fast alignment and convenient service access.

APPLICATIONS

- Carrier and fuel gas chromatography
- Atomic absorption
- Semiconductor manufacture
- Chemical processing
- General research and industrial uses

DESIGN FEATURES

- High resolution 150mm scale length.
- Many standard direct reading scales available.
- Precision taper, fluted metering tube.
- Lowest available pressure drop via maximum flow path area increases available flow rates at low feed pressures.
- Standard front panel mounting requires minimum hardware - easy installation, quick access.
- Available utility and high precision metering valves do not require special fittings.
- Simplified; direct acting non-rotating compression seal.
- 1/4" NPT female connections are standard.



MATERIALS OF CONSTRUCTION

End Blocks: Chrome plated Brass or 316 Stainless
"O" Rings & packing: Viton® - standard
Buna-N, EPR rubber and teflon
are available options
Side Plates: Anodized Aluminum

SPECIFICATIONS

Maximum Pressure: 200 psig
Temperature Range: -20°F to +250°F
-30°C to +120°C
Accuracy: $\pm 5\%$ of full scale
Repeatability: $\pm 0.25\%$ of scale reading

Series 7920 CONTINUED

Model	Material	Valve Type
B7920*	Brass	None
B7920V*	Brass	Standard
B7920HA*	Brass	High Accuracy
S7920	316 Stainless Steel	None
S7920V*	316 Stainless Steel	Standard
S7920HA*	316 Stainless Steel	High Accuracy

Each model includes one tube from the table below; specify your choice when ordering.

Options:

- 1/4" hose barbs inlet and outlet - add suffix "4HB"
- 1/4" compression tube fittings inlet and outlet
- 1/8" compression tube fittings inlet and outlet

P/N Suffix:

4HB
T4FF
T2FF

Bench stand - Model 7920B

HOW TO ORDER

Model -X-Y

X = tube required 1, 2, 3, 4, 5, 6, 7, 8, 10
Y = optional fittings 4HB = hose barbs
T4FF = 1/4" compression
T2FF = 1/8" compression

Example: B7920V-2-T4FF is a brass unit with a 7920-2 flow tube and 1/4" compression fittings on inlet and outlet.

FLOWMETER TUBES

Model	Typical Flow Range*	
	Float	Air scc/min.
7920-1	Glass	8 - 47
	St. Steel	14 - 138
7920-2	Glass	9- 92
	St. Steel	25- 264
7920-3	Glass	37- 370
	St. Steel	80- 816
7920-4	Glass	82- 817
	St. Steel	170- 1665
7920-5	Glass	550- 2214
	St. Steel	1070- 4494
7920-6	Glass	610- 3780
	St. Steel	1330- 7467
7920-7	Glass	820- 8555
	St. Steel	2090- 16493
7920-8	Glass	2220- 23105
	St. Steel	4190- 42860
7920-10	St. Steel	1.0- 100

Selected Correction Factors flow = air flow x correction factor

Gas	Correction Factors
air	1.00
acetylene	1.054
ammonia	1.304
argon	0.851
n-butane	0.706
carbon dioxide	0.811
carbon monoxide	1.017
ethane	0.981
ethylene	1.016
helium	2.689
hydrogen	3.810
methane	1.343
nitrogen	1.017
nitrous oxide	0.811
oxygen	0.951
propane	0.810

*Actual flow rates will vary from one manufacturing lot to another. Calibration data is supplied for each tube shipped. All calibrations are for air @ 0 psig outlet and 70°F.