• For economical measurement and linear indication, over a 10 to 1 range, of large flows of liquids or gases, in pipe sizes from 2 to 12 inches.

The meter is mounted in a by-pass line around a primary orifice plate in the main pipe. An integral ranging orifice in the by-pass meter proportions the by-pass flow to the main pipe flow so that the meter can indicate in direct flow units **on a linear scale.** All main line pipe sizes use ½" meters. A factor tag is permanently attached to each meter for converting scale reading to flow rate.

The meter is available with non-adjustable differential ranges of 0-25, 0-50, 0-100, 0-150, 0-200, 0-300 and 0-400 inches of water column. Primary orifice plates and flange unions are available, sized for use with the by-pass meter.

SPECIFICATIONS

Accuracy: ±4% of full scale when main line orifice plate is sized and installed as recommended.

Repeatability: ±1% of full scale.

Rangeability: 10 to 100% of full scale (10 to 1 turndown)

Scales: 10" long, linear, marked 10 to 100% on tubes standard.
Direct Reading on metal scale plate, optional.

Materials of construction

End fittings: brass, 316 stainless steel.
Float: 316 stainless steel
Body: 300 Series stainless steel
O-rings: Buna N or Viton
Packing: Neoprene or Teflon
Shield: Polycarbonate

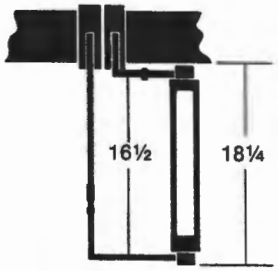
Temperature limits: 32 to 250°F (0 to 121°C)

Pressure limit: 300 psig (2070 kPa)

Mounting: In-line

Piping connections: ½" NPT

Dimensions (inches)



Options

Direct Reading Metal Scale
Packing Gland Version (series 10B4650)

How to Order

1. Determine water equivalent from table on page 37.
2. Select pipe size and differential from Table.
3. Specify complete model number.
4. Specify maximum flow rate and fluid density, viscosity, operating temperature and pressure.

For complete technical data please see Fischer & Porter SPECIFICATION 10B4500.

Other capacities and options are available. Please consult factory for details.

Model Number

10B4 ___ 55 ___ XA H ___ ___ BX

Seal Option
O-Ring ____ 5
Packing Gland ____ 6

Scale
Percent on Metal Scale Plate ____ P
Direct Reading
Metal Scale ____ S

Fitting Material
Brass/Bronze ____ B
Type 316 Stainless Steel ____ C
Carbon Steel ____ D

Seal Material
Buna-N O-Rings ____ F
Viton O-Rings ____ H
Neoprene Packing Rings ____ E
Teflon Packing Assembly ____ D

Maximum Differential
(See Capacity Table)
25" Water Column ____ B
50" Water Column ____ C
100" Water Column ____ D
150" Water Column ____ E
200" Water Column ____ F
300" Water Column ____ G
400" Water Column ____ H

Nominal Main Line Pipe Size Inches (mm)	Capacity Guide — Maximum gpm Water						
	Maximum Differential Pressure Inches water (kPa)						
	25 (6.25)	50 (12.5)	100 (25)	150 (37.5)	200 (50)	300 (75)	400 (100)
2 (50)	18 - 42	25 - 60	25 - 85	25 - 100	30 - 120	30 - 150	30 - 170
3 (76)	20 - 92	25 - 130	30 - 180	35 - 220	40 - 260	50 - 320	60 - 370
4 (102)	25 - 157	35 - 200	50 - 310	62 - 380	70 - 450	85 - 550	100 - 620
6 (152)	56 - 320	80 - 500	115 - 720	140 - 860	160 - 1000	200 - 1200	260 - 1400
8 (203)	100 - 615	140 - 870	200 - 1500	240 - 1500	280 - 1750	340 - 2100	400 - 2500
10 (254)	168 - 1000	230 - 1400	300 - 1950	380 - 2400	420 -2800	510 - 3400	600 - 4000
12 (305)	225 - 1400	310 - 2000	390 - 2800	550 - 3400	630 - 4000	770 - 4960	800 - 5500

To obtain flow in scfm of air at 14.7 psia, & 70°F multiply values in table by 4.12.
To obtain flow in m^3/hr of air at 101.4 kPa abs and 21°C multiply values in table by 7.0.
To obtain flow liters/min of water multiply values in table by 3.785.

The capacities shown are offered as a guide only. The values shown are the maximum flow obtainable through a square edge concentric orifice. Span of maximum values shown are those obtainable by varying the main line orifice diameter ratio between 0.3 and 0.7. Range is 12-½:1 in all cases except for 25-inch (6.25 kPa) Differential which is 7:1.