



# METAL TUBE INDICATING ROTAMETERS

For measuring fluid flow at elevated pressures



Type 20-9300 Metal Tube Indicating Rotameter with threaded connections; Type 20-9430 has flanged connections.

## FEATURES

- Rugged, weathertight metal construction
- Easily mounted directly in pipelines
- Low cost
- Standard scales supplied for GPH or GPM water
- Highly responsive magnetic coupling minimizes hysteresis

## DESCRIPTION

Series 9300 Metal Tube Indicating Rotameters are designed for measuring the rate of flow of water-like fluids at elevated pressures and temperatures.\* Two types are available. Type 9330 has threaded connections. The Type 9430 has flanged connections. Both are available in 1/2", 1", 1 1/2" and 2" pipe connection sizes, designed for easy mounting directly in pipelines, cabinets or on panels.

Fluid rate of flow is measured accurately and with excellent repeatability by the vertical motion of a float which responds to increases or decreases in fluid flow rate inside the metal metering tube. A pointer, in the indicator case, is magnetically coupled to the float. It "follows" the movement of the float and indicates rate of flow by its position in relation to the scales in the case.

\*See Bulletin 20-7000 for Glass-Tube Purge Rotameters, and Bulletin 20-9500 for High-Pressure Purge Rotameters.

## SPECIFICATIONS

**CONNECTIONS:** 1/2" NPT inlet and outlet on 1/2" sizes

1" NPT inlet and outlet on 1" sizes

1 1/2" NPT inlet and outlet on 1 1/2" sizes

2" NPT inlet and outlet on 2" sizes

NOTE: Without bushings, connections are one NPT size larger.

**DIMENSIONS AND CAPACITIES:** See dimension drawings and capacity table on reverse side of page

**ACCURACY:** ±5% of full scale reading

1% repeatability, instantaneous reading

**MATERIALS:** Tube & Float - 316 stainless steel  
Indicator Case - Stainless steel

**SCALES:** 90°, 3" length, direct reading, graduated in GPM or GPH water flow, percent of maximum flow

**MAXIMUM OPERATING PRESSURE AND TEMPERATURE:**

Type 9330 - 1500 psig at 400°F

Type 9430 - Determined by ANSI flanges used  
(150 lbs., 300 lbs., 600 lbs.)

**RANGE:** 10 to 1

**MOUNTING:** Vertical in pipelines

**MODIFICATIONS:** Type 9330 - Threaded connections  
Type 9430 - Flanged connections

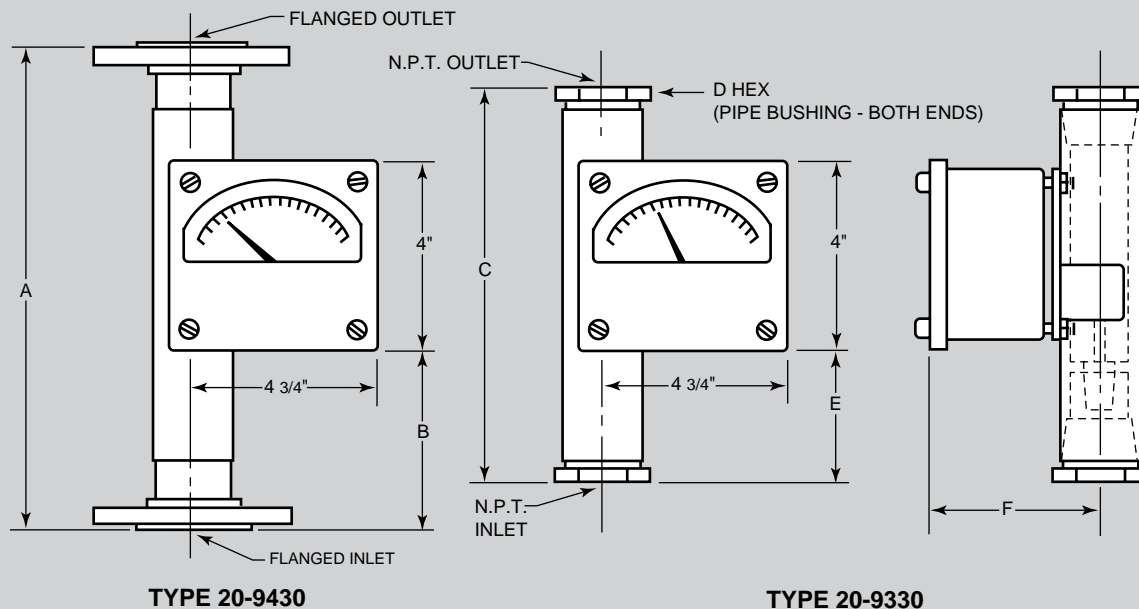


# SERIES 9300 METAL TUBE INDICATING ROTAMETERS

FLOW CAPACITIES (water @ 70°F)

METER SIZE	FLOAT SIZE								
	1			2			3		
	MIN.	MAX.	PRESS. DROP (PSI)	MIN.	MAX.	PRESS. DROP (PSI)	MIN.	MAX.	PRESS. DROP (PSI)
1/2"	10 GPH	100 GPH	.79	5 GPH	55 GPH	.88	2 GPH	20 GPH	1.1
1"	2 GPM	20 GPM	4.5	.8 GPM	8 GPM	1.7	.5 GPM	5 GPM	1.3
1 1/2"	5 GPM	55 GPM	4.1	3 GPM	30 GPM	1.8	—	—	—
2"	10 GPM	100 GPM	3.0	—	—	—	—	—	—

## DIMENSIONS



CONN. SIZE	TYPE 20-9430						TYPE 20-9330				APPROX. WGT. (LBS.) 20-9330	
	A			B			CONN. SIZE	C	D	E		F
	150# FLG.	300# FLG.	600# FLG.	150# FLG.	300# FLG.	600# FLG.						
1/2"	10 7/8"	10 7/8"	11 3/8"	4 1/2"	4 1/2"	4 3/4"	1/2"	8 1/8"	1 1/16"	3 3/16"	3 5/16"	4
1"	11 3/4"	11 3/4"	12 1/4"	5 1/8"	5 1/8"	5 3/8"	1"	9"	1 3/4"	3 3/4"	3 11/16"	8
1 1/2"	13 1/2"	13 1/2"	14"	6 1/4"	6 1/4"	6 1/2"	1 1/2"	10 1/4"	2 7/16"	4 5/8"	4"	10
2"	16"	16 1/4"	16 3/4"	8 3/8"	8 1/2"	8 3/4"	2"	12"	3 1/8"	6 3/8"	4 3/16"	16

NOTE: All dimensions  $\pm 1/4"$

Specifications contained herein are subject to change without notice. Since it is impossible to anticipate or control the many different conditions under which this information and our products may be used, we cannot guarantee the applicability and accuracy of this information, or the suitability of our products in any given situation.



3255 West Stetson Avenue, Hemet, CA 92545-7799 USA  
 Phone: 909 652-6811 Fax: 909 652-3078 e-mail: info@mccrometer.com  
 Web Site: <http://www.mccrometer.com>