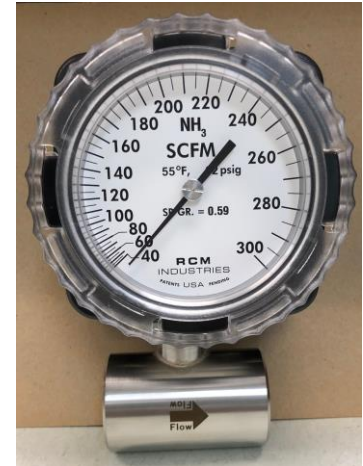


Ammonia (Gas) Flow Meters

Sturdy in-line, 316 SST construction (brass free), EPR seals and gasketed case to handle the harsh corrosive nature of ammonia.

Features and Benefits

- 3.5" (90mm) 270° analog dial for reading at a glance
- Suitable for use with opaque and clear fluids.
- Measures 6:1 range with $\pm 3\%$ F.S. accuracy
- Dial and case factory configured for quick installation – but easily field re-configured if needed
- Gas flow ranges from 40 SCFH (1Nm³/h) in 1/2" flow meter to 20000 SCFM (60000 Nm³/h) in 8" flow meter.

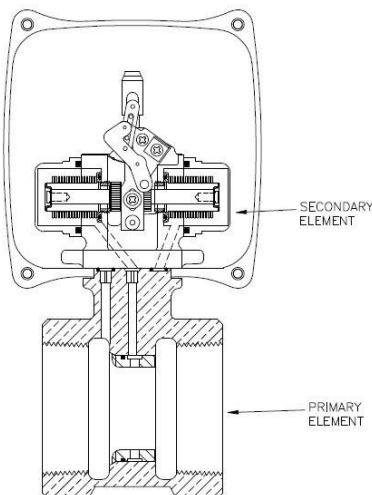


Applications

- Fertilization Process
- Manufacturing of Plastics, Textiles and Pesticides
- Refining Process (Neutralizing Crude Oil Acid)
- Industrial Refrigeration

Principle of Operation

Our differential pressure flow meters are based on the premise that the pressure drop across the meter is proportional to the square of the flow rate. The flow rate is obtained by measuring the pressure differential and extracting the square root.



Specifications

	Standard	Options
Housing	Polycarbonate	Aluminum
Body	316 SS	n/a
Bellows	316 SS	
Seals	EPR	n/a
Crystal	Polycarbonate	Glass Plastic
Gear Movement Accuracy	316 SS	
Repeatability	$\pm 1\%$ F.S.	
Pressure		
Maximum	180 psig	400 psig
Minimum	10 psig	10 psig
Temperature		
Maximum	212°F	350°F
Minimum	-30 °F	-80 °F

Model Number System

The example **1/2"-73-R-40-ESIN** describes a 1/2" pipe size, 7000 series threaded connection, 316 SST material, flow from left to right, flow rate of 40 SCFH, Options – Low flow rate (ES), Compressed Gas Service (I) and Ammonia service (N).

<u>1/2"</u>	-	<u>7</u>	<u>3</u>	-	<u>R</u>	-	<u>40</u>	-	<u>ESIN</u>
Pipe Size		Series	Material		Flow Direction		Flow Rate		Options
1/4"	(8mm)	7000 Series	1 - Bronze		L – Right to Left		See Flow Chart		See Table
1/2"	(15mm)	8000 Series	2 - Monel		R – Left to Right				
3/4"	(20mm)		3 - SST		VUR – Vertical Up Flow Dial Right				
1"	(25mm)				VUL - Vertical Up Flow Dial Left				
1 1/2"	(40mm)				VDR - Vertical Down Flow Dial Right				
2"	(50mm)				VDL - Vertical Up Flow Dial Left				
2 1/2"	(65mm)								
3"	(80mm)								
4"	(100mm)								
5"	(125mm)								
6"	(150mm)								
8"	(200mm)								

Table of Options

		Size	SCFM	Nm ³ /h	Size	SCFM	Nm ³ /h
B	EPR Seals	1/4	10	15	2 1/2	600	1000
B2	Teflon Seals	1/4	20	30	2 1/2	800	1200
E	Non-Standard Flow Rate	1/4	30	50	2 1/2	1000	1500
ES	Low Flow Rate (Below 2 GPM)				2 1/2	1200	2000
F	Aluminum Housing with Plastic Dial Crystal	1/2	10	15	3	1000	1500
F2	Aluminum Housing with Glass Dial Crystal	1/2	20	30	3	2000	3000
G	Custom Scales and Dials	1/2	30	50	3	3000	5000
I	Compressed Gas Service	1/2	40	80	3	4000	6000
P	Panel Mount	1/2	60	100		SCFM	Nm³/m
R3	Remote Readout, 316 SS (Mechanical Indicator)	3/4	60	100	4	1500	50

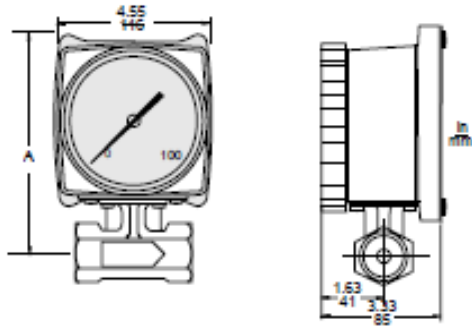
Flow Ranges – Series 7000 & 8000

Low Flow Rates – Option ES

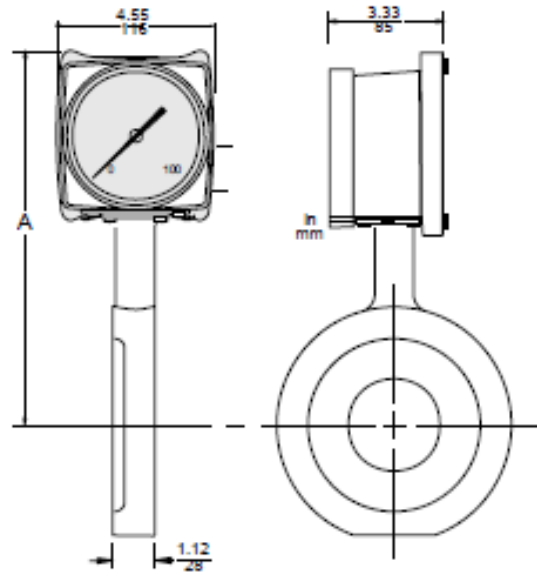
Size	SCFH	Nm ³ /h	Size	SCFM	Nm ³ /h
1/2	40	1	1	150	250
1/2	60	2	1	200	400
1/2	100	3	1	300	500
1/2	150	4	1	400	600
1/2	200	6	1 1/2	300	500
1/2	300	8	1 1/2	400	600
1/2	400	10	1 1/2	600	1000
			1 1/2	800	1200
			2	400	600
			2	600	1000
			2	800	1200
			2	1000	1500
			2	1200	2000

Note: Available with 1/2" 7000 Series Only

7000 Series – 1/4" to 3" Connections



8000 Series – 1/2" to 8" Connection

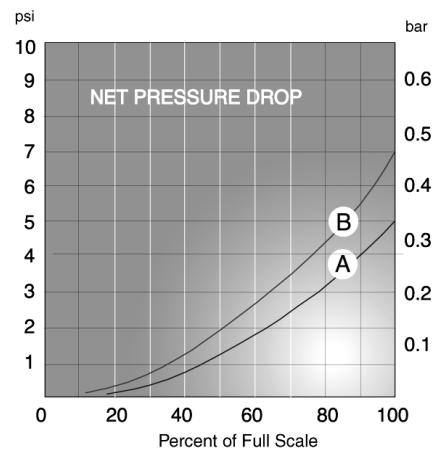


Dimensions

Nominal Sizes		Series 7000 – A		Series 8000 - A	
In	mm	In	mm	in	mm
1/4	08	5.95	151	n/a	n/a
1/2	15	5.95	151	6.62	168
3/4	20	5.95	151	7.06	179
1	25	6.07	154	7.25	184
1 1/2	40	6.39	162	7.81	198
2	50	6.80	172	8.00	203
2 1/2	65	n/a	n/a	8.54	217
3	80	7.48	190	8.87	225
4	100	n/a	n/a	9.95	252
5	125	n/a	n/a	10.36	263
6	150	n/a	n/a	11.05	280
8	200	n/a	n/a	12.30	311

Note: Dimensions are based on bronze meters.

Pressure Drop Characteristics



Curve A – Bronze Bellows

Curve B – Monel, SS, Inconel Bellows

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