

# “A” Series

## Gas Meters

### Functionality profile

The Itron “A” Series commercial diaphragm meters comprise a range of positive displacement gas measurement devices with capacities of 400 to 1000 ft<sup>3</sup> hr. Ideally suited for light and higher capacity commercial metering requirements such as dry cleaners, restaurants, schools, hospitals and hotels. The 400A, 800A, & 1000A meters retrofit to any meter set within its capacity range.

These meters use proven, time-tested diaphragm meter technology in a 3-chamber design to provide accurate measurement across their respective flow ranges. Long-life and low maintenance are assured by the combination of a self-lapping orbital valve, single convolution diaphragms, and lubrication-free bearings. Careful attention to design makes them compact and lightweight for their capacity ratings.

### Setting the standard

When you combine all of the “A” Series customer-driven features with our tradition for highly accurate meters and good value, it is easy to see why these outstanding meters should have a place in your measurement operation.

### Instrumentation Compatible

The “A” Series meters are designed to be fully compatible with all volume and temperature-integrating instruments available today.

### Key features

- > 3-chamber design
- > Wearless orbital valve
- > One piece, seamless, convoluted diaphragm
- > Lubrication-free bearings
- > EZ-VU Adjustment Port
- > Parts commonality
- > Instrumentation compatible
- > Easy Turn (ET) top option for simple installation
- > Lightest 400, 800, & 1000 class meters
- > Retrofits into any 400, 800 & 1000 installation
- > Easy handling
- > Long life
- > AMR/AMI Compatible

### Installation

The Easy Turn (ET) design allows 2 to 3 times more wrench swing than the competition - as much as a full 120 degrees for meters mounted directly against a wall - making the Itron 675A, 800A and 1000A ‘ET’ gas meters the easiest and safest to install in North America.

### Meets applicable standards

- > ANSI B109.1, ANSI B109.2

### Product approvals

- > Industry Canada AG-0298, AG-0385
- > State of New York Department of Public Service 91-G-0507, 96-G-0885

## 400A



400A shown with 8-1/4" center-to-center hubs

## 400A Gas Meter

*The compact performer for light commercial metering*

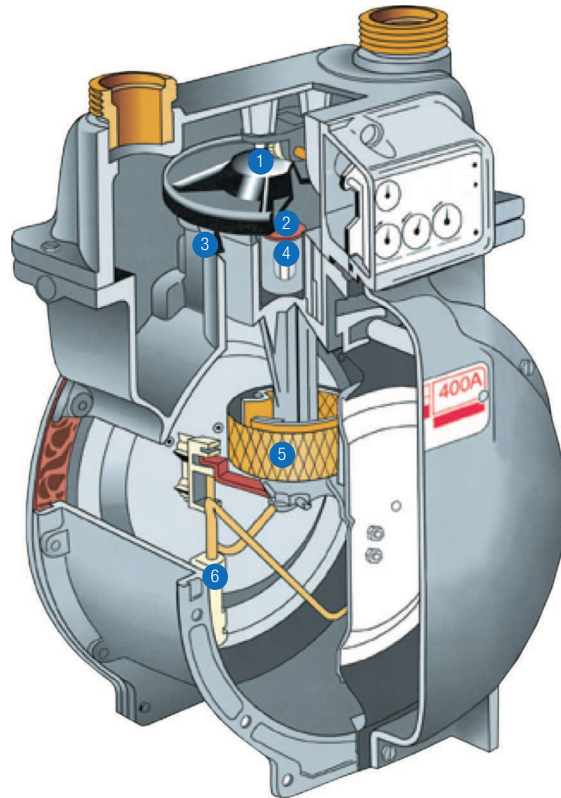
Itron's 400A meter is the most compact and lightweight 400-class meter on the market today. Maintaining the use of a wearless orbital valve, single convolution diaphragms and lubrication free bearings, the 400A delivers maximum initial and sustained accuracy.

*Designed to fit*

Available with either 6-25/32", 7" or 8-1/4" center-to-center hubs, and with a reduced height of 14.7" the 400A can replace any existing 400-class meter with no need for expensive, time-consuming piping rework.

*Ideally suited to light commercial and high-capacity domestic metering requirements, the Itron 400A offers:*

- > Lightest, narrowest 400-class meter on the market
- > Fewer moving parts than any other 400-class meter

*1 - Hex bushing*

In the valve cover to provide self alignment and ensure consistent orbiting of the valve cover

*2 - Web free valve seat*

Enables mainshaft and tangent crank to be replaced without removing the valve seat

*3 - Mainshaft and tangent crank*

One-piece construction minimizing assembly variations

*4 - Lubrication-Free bearings*

Ensure long maintenance free operation

*5 - Carrier bracket*

Engineered with tongue and groove design allowing for consistent and precise positioning of wires and reducing wire bending adjustment

*6 - Temperature compensation (optional)*

Located in the main measurement chamber for more prompt response to changes in temperature

## 675A, 800A, 1000A Gas Meters

### *Diaphragm accuracy for higher capacity metering applications*

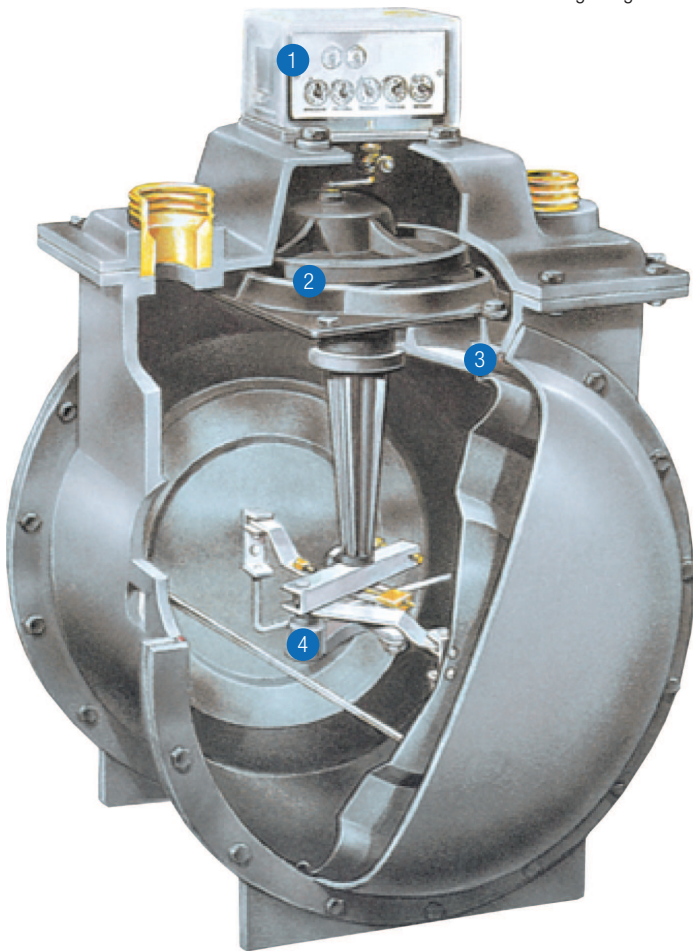
Thanks to modern engineering and production techniques, the larger members of the "A" Series combine accuracy and long life in a smaller package. This smaller size adds up to big advantages in easier shipping, handling and installation - at just 18.5" from base to hub, these meters can be applied wherever capacities of 675-1000 ft<sup>3</sup>/h are needed.

### *Easier to install, easier to use*

These high performance meters offer advantage after installation, too. They all feature a top-mounted index drive for full instrumentation compatibility. In addition, the index can be rotated to 180° for installation where it is more convenient to install the meter backwards.

### *Itron 675A, 800A and 1000A meters offer these advantages for commercial metering applications:*

- > Reduced size and weight compared to the Sprague 675 and 1000 meters
- > Fully compatible with volume and temperature-integrating instruments



#### *1 - Reversible top-mount index*

Ensures easy installation where the meter inlet and outlet need reversing

#### *2 - Self-dressing orbital valve and seat*

Contribute to superior valve wear, lending to improved accuracy and repeatability over the life of the meter

#### *3 - "O"-Ring diaphragm seal*

Ensures consistent sealing throughout wide environmental temperature variations. Neoprene gasket material makes repairs simple - eliminates the need for costly cork gasket removal

#### *4 - Temperature compensation (optional)*

Located in the main measurement chamber for more prompt response to changes in temperature

## 675A, 800A, 1000A



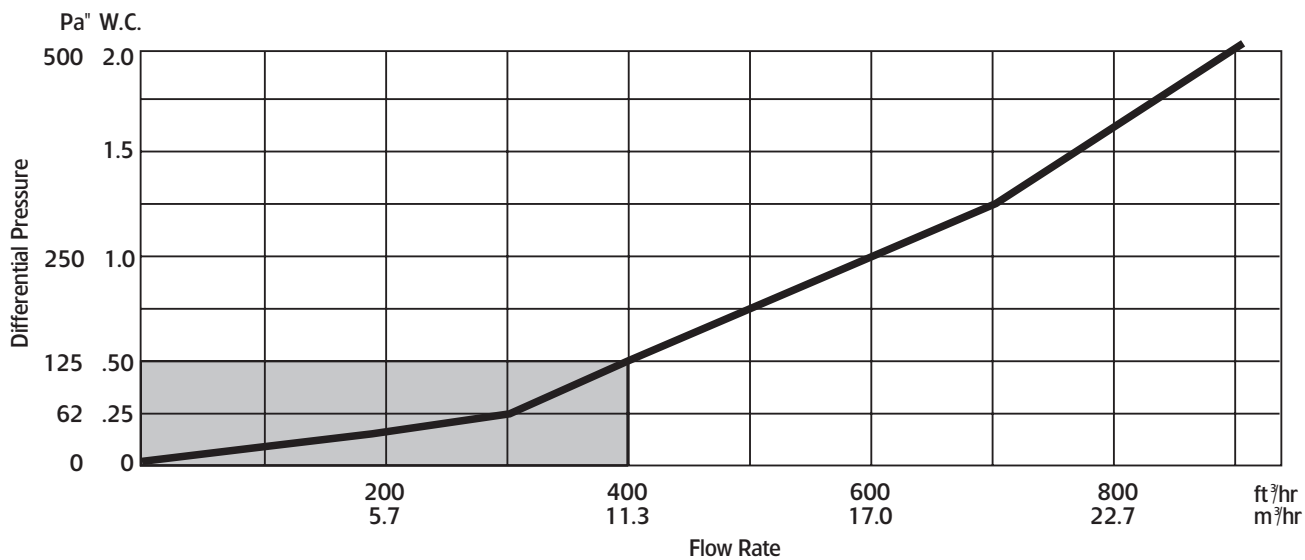
Meter shown with standard top



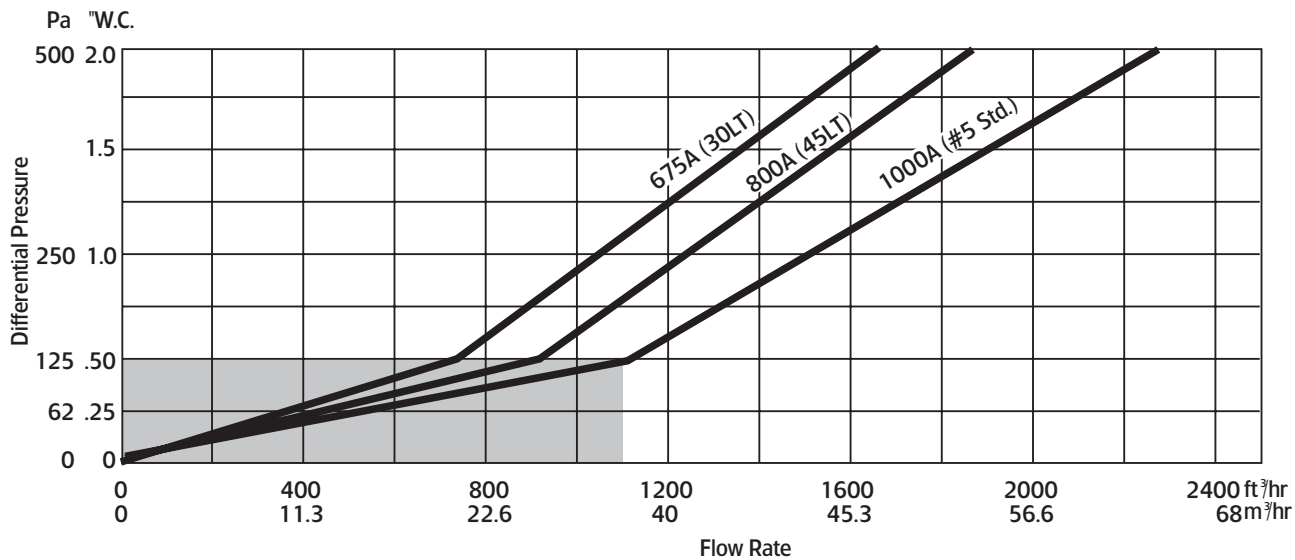
Meter shown with 'ET' top

Capacity & Pressure Loss\*

400A

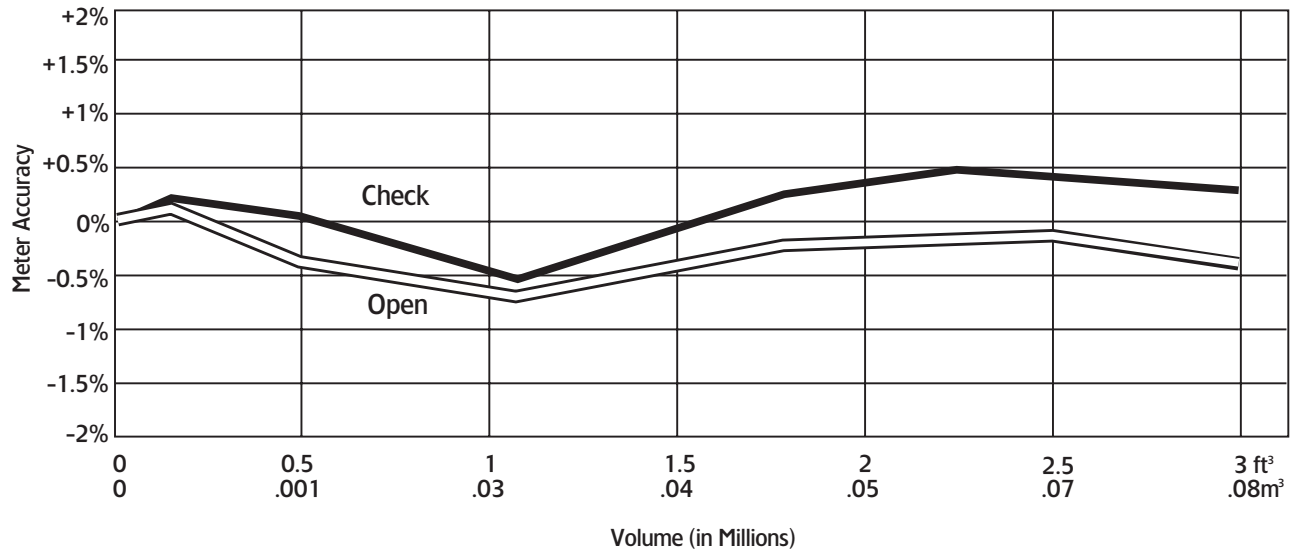


675A, 800A, 1000A

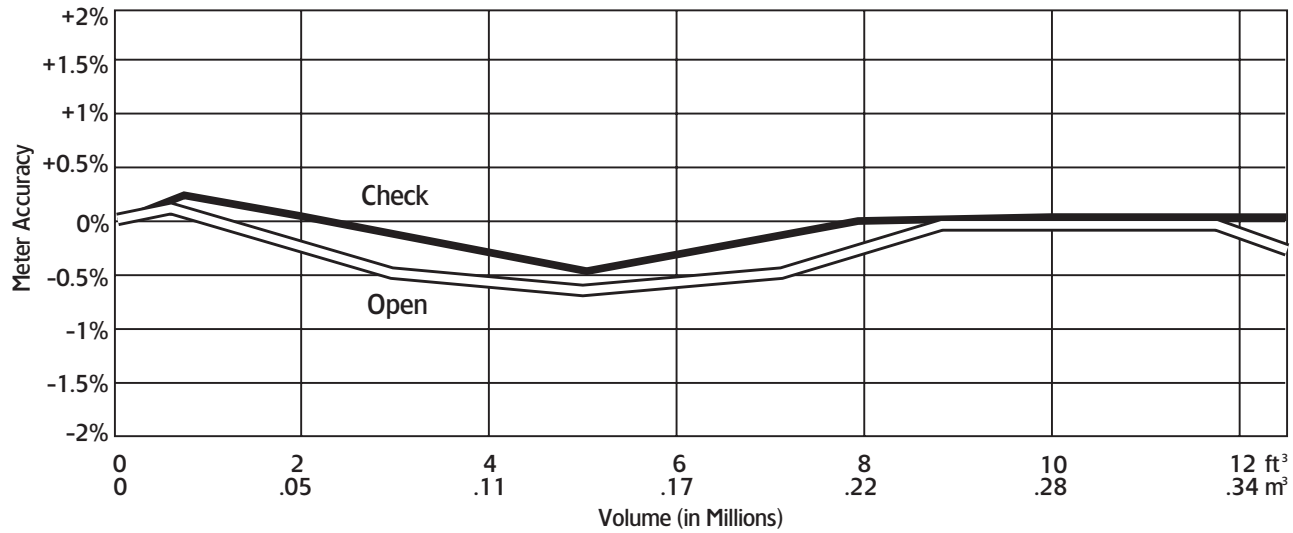


## Accelerated Life Test\*

400A Running at 800 ft<sup>3</sup>/hr (22.6 m<sup>3</sup>/hr)



675A, 800A, 1000A Running at 900 ft<sup>3</sup>/hr (25.5 m<sup>3</sup>/hr)



\*Individual meter performance may vary

## Dimensions

### Imperial - Inches

Model	A1	A2	A3	B1	B2	C	D	E	Wt. (lbs)
400A	6.78	7.0	8.25	9.5	10.9	14.7	8.6	8.8	14.1

Model	A	B	B*	C	D	E	Wt. (lbs)
675A	10	23.4	26.1	18.5	15.7	13.9	41.2
800A	11	23.4	26.1	18.5	15.7	13.9	41.2
1000A	11	23.4	26.1	18.5	15.7	13.9	41.2
675A ET	10	25	27.7	18.5	15.7	13.9	41.5
800A ET	11	25	27.7	18.5	15.7	13.9	41.5
1000A ET	11	25	27.7	18.5	15.7	13.9	41.5

### Metric - Millimeters

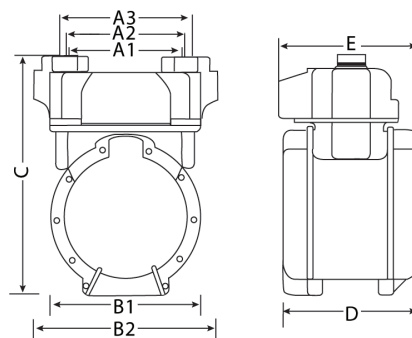
Model	A1	A2	A3	B1	B2	C	D	E	Wt. (kg)
400A	172	178	210	241	277	373	218	224	6.4

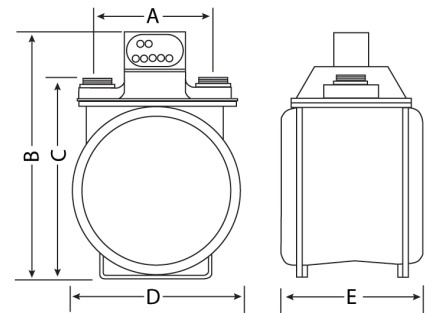
Model	A	B	B*	C	D	E	Wt. (kg)
675A	254	594	663	470	399	353	18.7
800A	279	594	663	470	399	353	18.7
1000A	279	594	663	470	399	353	18.7
675A ET	254	635	704	470	399	353	18.8
800A ET	279	635	704	470	399	353	18.8
1000A ET	279	635	704	470	399	353	18.8

All dimensions and weights provided are approximate

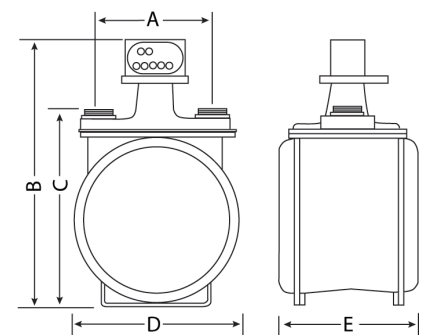
400A



675A, 800A, 1000A



675A, 800A, 1000A ET



## Specifications

	400A	675A	800A	1000A
Meter Capacity (CFH Natural Gas)	400 @ .5" w.c. Diff.	790 @ .5" w.c. Diff.	890 @ .5" w.c. Diff.	1040 @ .5" w.c. Diff.
Hub Center-to-Center	6-25/32", 7" or 8-1/4"	10"	11"	11"
Hub Sizes	20 LT, 30 LT, 45 LT, #4 Sprague	30 LT, 45 LT, #4 Sprague	30 LT, 45 LT, 60 LT, #5 Sprague, 100 LT	45 LT, 60 LT, 100 LT, #5 Sprague
Meter Type	(TC) Temperature Compensated or (NTC) Non-Temperature Compensated			
Units	Imperial (Cubic Feet - ft <sup>3</sup> ) or Metric (Cubic Meters - m <sup>3</sup> )			
Index Drive	2 ft <sup>3</sup> /revolution 50 cubic decimeters/revolution	10 ft <sup>3</sup> /revolution .30 cubic meters/revolution		
Proving / Test Dials	ft <sup>3</sup> - 1/2' and 2' Proving Dials m <sup>3</sup> - 10 dm <sup>3</sup> and 50 dm <sup>3</sup> Proving Dials	ft <sup>3</sup> - 2.5' and 10' Proving Dials m <sup>3</sup> - .3 m <sup>3</sup> and .15 m <sup>3</sup> Proving Dials		
Tangent Crank	9 revolutions/ft <sup>3</sup> or .111 ft <sup>3</sup> /revolution 3.2 revolutions/dm <sup>3</sup> or 2 liters/revolution	1.8 revolutions/ft <sup>3</sup> or .8 ft <sup>3</sup> /revolution 5.1 revolutions/dm <sup>3</sup> or .196 liters/revolution		
Indexes	4 Circle Dial (ft <sup>3</sup> ) - Standard 7", 14", 2 PSIG, 5 PSIG  4 Digit Direct Read (ft <sup>3</sup> - Standard Pressure) 5 Digit Direct Read (ft <sup>3</sup> or m <sup>3</sup> - Standard Pressure)	5 Circle Dial (ft <sup>3</sup> ) - Standard 7", 14", 2 PSIG, 5 PSIG, 10 PSIG, 15 PSIG, 20 PSIG  5 Digit Direct Read (ft <sup>3</sup> - Standard Pressure) 6 Digit Direct Read (m <sup>3</sup> - Standard Pressure) 7 Digit Direct Read (m <sup>3</sup> - Standard Pressure)		
Meter M.A.O.P.	10 PSIG (25 PSIG Optional)	25 PSIG		
Meter Operating Temperature Range	-30°F to +120°F -34°C to +49°C			
Surface Treatment	ASA 49 Gray Polyester Powder Coat			

	Meters per Layer	Layers per Pallet	Meters per Pallet	Pallet Dimensions	Pallet Weight (lbs)
400A	20	3	60	48" x 46" x 53"	906
400A with AMR/AMI	16	3	48	48" x 46" x 53"	785
675A, 800A and 1000A	9	2	18	48" x 46" x 65"	845
675A, 800A and 1000A with AMR/AMI	9	2	18	48" x 46" x 65"	905

All dimensions and weights provided are approximate

## AMR/AMI Compatible

Itron gas meters are compatible with leading AMR/AMI devices.



Meters shown with 100G Gas ERT Module

## Additional Information

- > Diaphragm Type Gas Meters Installation Instructions (TDC-0841-001)
- > Diaphragm Meter Product Line (TDC-0858-001)
- > 3-Chamber Meter Adjustment (TDC-0848-001)

### **About Itron Inc.**

*Itron Inc. is a leading technology provider to the global energy and water industries. Our company is the world's leading provider of intelligent metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Our products include electricity, gas, water and heat meters; data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services. To know more, start here: [www.itron.com](http://www.itron.com).*

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