

# AICHI MIDDLE PRESSURE GAS METER

## AH Series



## Wide Flow Range & Compact

Recently, middle pressure piping and middle pressure gas have been frequently used. To cater to this trend, we developed middle pressure membrane gas meters with wide flow ranges.

### FEATURES

1. Suitable for measuring middle pressure gases (up to 1 kgf/cm<sup>2</sup>) such as LP-gas, nitrogen, air, etc.
2. The outer casing is made of aluminum die casting. Aluminum casting is used as the membrane. It is light-weight and pressure-resistant, and can be used safely.
3. The instrumental adjustment device offers stable instrumental error over a wide range.

## STANDARD SPECIFICATIONS

Item	Model	AH5	AH7	AH10	AH15
Max. service flow rate (m <sup>3</sup> /h)		5	7	10	15
Max. pressure (kgf/cm <sup>2</sup> )		1.0			
Measuring chamber volume (ℓ)		1.7	1.7	4.0	4.0
Connection dia.		¾B	¾B	1¼B	1½B
Min. division (ℓ)		0.2	0.2	2	2
Max. division (m <sup>3</sup> )		9999	9999	99999	99999
Material of outer casing side plate		Aluminum die casting & aluminum casting			
Connection system		Union nut system			
Weight (kg)		3.8	3.8	10.5	10.5

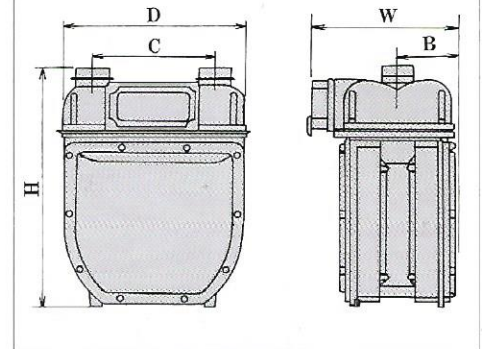
## HANDLING

1. Open the valve upstream of the gas meter gradually.
2. Do not apply sharp pressure fluctuation to the gas meter.

## OUTER DIMENSIONS

Unit: mm

Item	Model	AH5	AH7	AH10	AH15
H		262	262	341	341
D		195	195	300	300
C		130	130	220	220
W		165	165	215	215
B		68	68	93	93



## FLOW RATE CONVERSION

Gas meters measure gas volume under pressure when gas passes through them. Therefore, convert supply pressure into contract pressure using the following conversion equation, if they differ :

$$Q_v = \frac{P + 1.0332}{P_n + 1.0332} \times Q$$

Q<sub>v</sub>: Volume converted into contract pressure (P<sub>n</sub>) (m<sup>3</sup>)

Q : Accumulated volume on gas meter (m<sup>3</sup>)

P<sub>n</sub>: Contract pressure (gauge pressure) (1 khf/cm<sup>2</sup>)

P : Supply pressure (gauge pressure) (1 khf/cm<sup>2</sup>)

\* The following tables list conversion factors when P<sub>n</sub> (contract pressure) is 280mm H<sub>2</sub>O.

Supply pressure (kgf/cm <sup>2</sup> )	0.05	0.1	0.15	0.2	0.25	0.3	0.35
Conversion factors	1.021	1.068	1.115	1.162	1.209	1.256	1.303

Supply pressure (kgf/cm <sup>2</sup> )	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Conversion factors	1.351	1.445	1.539	1.633	1.727	1.822	1.916

If supply pressure is 0.5 kgf/cm<sup>2</sup>, contract pressure is 280mm H<sub>2</sub>O, and reading on the Middle Pressure Gas meter of a month is 100m<sup>3</sup>, Q<sub>v</sub> = 100 m<sup>3</sup> x 1.445, or Q<sub>v</sub> = 144.5 m<sup>3</sup>.