

The principle and structure of dry gas meters

The meter is divided into four measuring chambers, by two diaphragms. Gas flows into a chamber, moving the diaphragm due to differential pressure. The chambers are alternately connected to inlet or outlet, by a slide valve which moves with the diaphragms. The diaphragm movement is conducted to an accumulating counter via a rotary crank, showing the volume passing through the meter.



DC – For experimentation, environmental measurement

Materials All models:

- Casing : Polybutylene terephthalate (PBT) and polycarbonate (PC)
- Diaphragm : Polyester cloth with hydrin rubber (CHC+NBR)
- Counter parts : Brass and polyacetal resin (POM)

DC-5A : Inner parts : Aluminium alloy die casting, zinc-coated steel plate and brass

DC-1C/2C : Inner parts : Polyphenylene sulfide (PPS) and stainless steel

DC-5C : Inner parts : Aluminium alloy die casting, zinc-coated steel plate and stainless steel

Pressure loss	320Pa
Operating pressure limit	0kPa to 10kPa
Operating temperature limit	-10°C to 50°C

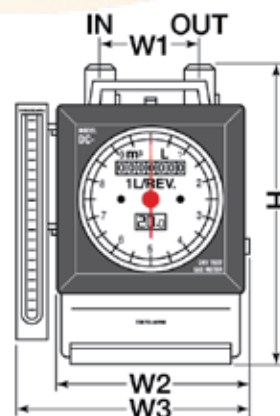
Repeatability: ±0.3% (Standard deviation)
*Changes depending on the measurement situation

Model	Measuring range	Diaphragm capacity (L)	One revolution (L)	Minimum scale (mL)	Connector	Weight (kg)
DC-1C	0.16 ~ 18.3L/min (10 ~ 1100L/h)	0.7	1	5	φ 9	2.5
DC-2C	0.16 ~ 33.3L/min (10 ~ 2000L/h)	0.7	1	5	φ 13	2.5
DC-5A/C	0.83 ~ 83.3L/min (50 ~ 5000L/h)	1.2	10	50	φ 19	3.9

*Pulse output can be installed.

*Manometer can be installed.

Model	W1	W2	W3 (-M type)	L	H
DC-1	90	174	235	150	258
DC-2	90	174	235	150	258
DC-5	130	199	264	176	309



Symbols

DC ① - ② AorC ③ - ④

- Pulse output
A : Explosion-proof pulse output
Da : Regular pulse output
- Maximum flow rate
1/2/5 (A-type is only 5)
- Options
o : Degreased
f : Teflon coating
- Options
M : 1.8kPa manometer
D : Without digital thermometer