



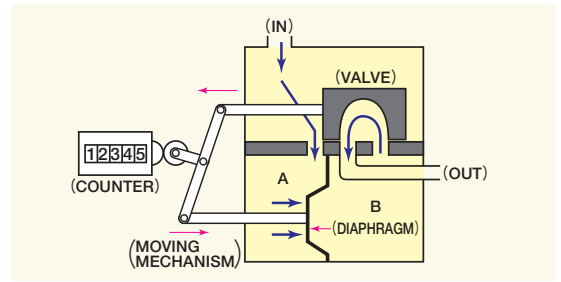
DRY GAS METER

- For experimentation, environmental measurement..... **DC(S)**
- For large flow..... **DS**
- For middle pressure..... **DSH**
- For high pressure..... **D-NM**



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 integrating counter via a rotary crank, showing the volume passing through the meter.



DC(S)..... 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-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

Materials

Casing and other parts: Stainless steel (SUS)

Jointing: Soldering

Inner parts: Polyphenylene sulfide (PPS) and stainless steel

Diaphragm: Polyester cloth with hydrin rubber (CHC+NBR)

Counter parts: Brass and polyacetal resin (POM)



DC-2C-M



DCS-2C

Pressure loss	320Pa
Operating Pressure Limit	0kPa to 10kPa
Operating Temperature Limit	-10°C to 50°C

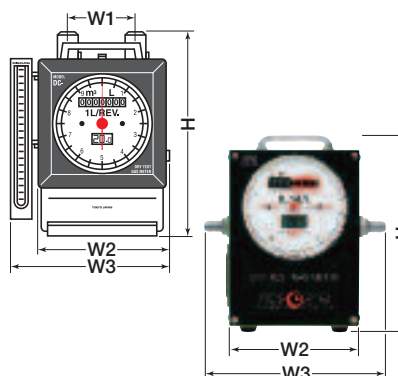
Accuracy(Repeatability): ±0.3% (Standard deviation)
 ※Changes depending on the measurement situation

Model	Measuring Range	Diaphragm Capacity (L)	One Revolution (L)	Minimum Scale (mL)	Connector	Weight (kg)
DC-1C/DCS-1C	0.16~18.3L/min(10~1100L/h)	0.7	1	5	φ 9	DC2.5/DCS3.9
DC-2C/DCS-2C	0.16~33.3L/min(10~2000L/h)	0.7	1	5	φ 13	DC2.5/DCS3.9
DC-5C/DCS-5C	0.83~83.3L/min(50~5000L/h)	1.2	10	50	φ 19	DC3.9/DCS6.0

●Pulse output can be installed. ●Manometer can be installed.

Dimensions (mm)

Model	W1	W2	W3	D	H
DC-1/2	90	174	235	150	258
DC-5	130	199	264	176	309
DCS-1C/2C	167	267	160	268	
DCS-5	220	377	192	300	



Symbols

DC(S) ① - ② C ③ - ④

- ① Pulse output
 M : Explosion-proof pulse output
 Da : Regular pulse output
 Blank : Without
- ② Maximum flow rate
 1/2/5 (A-type is only 5)
- ③ Options
 o : Degreased
- ④ Options
 M : 1.8kPa manometer
 D : Without digital thermometer
 Z : Resettable Counter

DS..... For large flow

DSH..... For middle pressure



DS-6A

Materials

DS-1.6~ -16: Casing : Aluminium alloy die casting (ADC12) and zinc-coated steel plate

DS-25~ -160: Casing : Zinc-coated steel plate

All models: Inner parts : Aluminium alloy die casting, zinc-coated steel plate and polyacetal resin

Diaphragm : Polyester cloth with hydrin rubber (CHC+NBR)

Other parts : Nickel-coated brass, stainless steel and polycarbonate (PC)

DS

Operating Pressure Limit	0kPa to 20kPa
Operating Temperature Limit	-5°C to 40°C

DSH-6

Operating Pressure Limit	0kPa to 50kPa
Operating Temperature Limit	-5°C to 60°C

DSH-10

Operating Pressure Limit	0kPa to 100kPa
Operating Temperature Limit	-5°C to 60°C

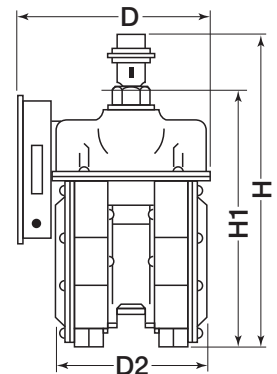
Model	Measuring Range	Diaphragm Capacity (L)	Minimum Scale (L)	Pulse Rate (L/P)	Pressure loss (Pa)	Gas Tube
DS-1.6A	0.16~ 26.6L/min(0.01~ 1.6m³/h)	0.6	0.2	0.1	220	20A 3/4B
DS-2.5A	0.37~ 41.6L/min(0.02~ 2.5m³/h)	0.9	0.2	0.1	220	20A 3/4B
DS-4A	0.5 ~ 66.6L/min(0.03~ 4 m³/h)	1.7	0.2	0.1	220	20A 3/4B
DS-6A	0.66~ 100 L/min(0.04~ 6 m³/h)	1.7	0.2	0.1	300	20A 3/4B
DS-10A	1.16~ 166 L/min(0.07~ 10 m³/h)	4	2	1	300	32A 1 1/4B
DS-16A	1.66~ 266 L/min(0.1 ~ 16 m³/h)	4	2	1	300	32A 1 1/4B
DS-25A	2.5 ~ 416 L/min(0.15~ 25 m³/h)	9	2	1	300	50A 2B
DS-40A	5 ~ 666 L/min(0.3 ~ 40 m³/h)	20	20	10	300	50A 2B
DS-65A	6.66~1083 L/min(0.4 ~ 65 m³/h)	20	20	10	300	50A 2B
DS-100A	10 ~1666 L/min(0.6 ~100 m³/h)	40	20	10	300	80A 3B
DS-160A	16.6 ~2666 L/min(1.0 ~160 m³/h)	40	20	10	400	80A 3B
DSH-6	0.66~ 100 L/min(0.04~ 6 m³/h)	1.7	0.2	0.1	300	20A 3/4B
DSH-10	1.16~ 166 L/min(0.07~ 10 m³/h)	4	2	1	300	32A 1 1/4B

- Rubber tube connection is available as an option
- Please contact us regarding pulse rate options

Dimensions (mm)

Model	Distance between inlet/outlet center	W	H1	H	D	D2	Weight (kg)
DS-1.6A	130	174	219	279	173	94	4
DS-2.5A	130	174	240	299	178	102	5
DS-4A,-6A	130	195	269	330	196	120	5.3
DS-10A,-16A	220	300	341	421	253	167	11
DS-25A	220	417	452	534	421	367	25
DS-40A,-65A	320	513	573	655	474	423	39
DS-100A,-160A	380	639	728	841	559	519	73.5
DSH-6	130	195	262	323	200	130	4.9
DSH-10	200	300	341	421	252	184	12.7

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



DS-6A-TM

With pointer, manometer, thermometer



DS-6A-TS

With pointer, mounting brackets for temperature/pressure sensor
 (Sensors are sold separately)

Symbols

DS(H) ① - ② A ③ - ④

※Corrosion resistant uses Ce

- ① Pulse output
 - A: Explosion-proof
 - Da: Regular (magnified)
 - Blank: Regular
- ② Maximum flow rate
 - 1.6/2.5/4/6/10/16/25/40/65/100/160
- ③ Options
 - o: Degreased
- ④ Options
 - T: Analogue pointer
 - M: With 3.6kPa manometer and rod thermometer
 - S: With mounting brackets for temperature and pressure sensors
 - R: Rubber tube joint
 - Z: Resettable Counter
 - Blank: Gas pipe joint (standard)



D-NM..... For high pressure

Materials

- D-NM-2~15: Internal casing: Aluminium alloy die casting (ADC12) and zinc-coated steel plate
- D-NM-30~120: Internal casing: Zinc-coated steel plate
- All models: Outer casing: Carbon steel
- Diaphragm: Polyester cloth with hydrin rubber (ECO+NBR)
- Transmission unit: Sealed system with magnetic coupling

Pressure loss	200Pa
Operating Pressure Limit	-0.097MPa to 0.97MPa
Maximum Pressure Tolerance	1.45MPa
Operating Temperature Limit	-5°C to 40°C

Model	Measuring Range	Diaphragm Capacity (L)	Minimum Scale (L)	JIS10K	Dimensions (mm)	Weight (kg)
D-NM-2A	0.16 ~ 33.3L/min(10 ~ 2000 L/h)	0.6	0.2	20A	W320 D322 H 354	28
D-NM-7A	0.33 ~ 116.6L/min(20 ~ 7000 L/h)	1.7	0.2	25A	W380 D379 H 421	49
D-NM-15A	3.33 ~ 250 L/min(200 ~ 15000 L/h)	4	2	32A	W400 D474 H 544	95
D-NM-30A	10 ~ 500 L/min(600 ~ 30000 L/h)	9	2	50A	W530 D476 H 599	110
D-NM-50A	16.6 ~ 833 L/min(1000 ~ 50000 L/h)	20	20	65A	W750 D641 H 690	160
D-NM-120A	33.3 ~ 2000 L/min(2000 ~ 120000 L/h)	40	20	80A	W880 D810 H1030	350

●Pulse output can be installed.

Accuracy(Repeatability): ±0.3% (Standard deviation)
 ※Changes according to the measurement situation.

Optional functions and Accessories

 STF Digital Counter	 SUS Intelligent Counter	 Temp. Sensor Indicator	 Carrying Case
 Pressure Gauge	 Pressure Sensor	 1.8kPa Manometer	 Explosion-proof pulse system

Notice and Request

- Gases consisting of e.g. O₂ or H₂ will require special configuration.
- Please contact us about specification, repair or calibration.
- Specifications are subject to change without prior notice.



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