

# Orifice flowmeters



## SUMMARY

DA series is designed by structure for measuring all Gas and Liquid easily also, this flow meter is able to design from large pipe to small pipe and from to large flow with no limited the direction of flow.

**DAT**



**DAT-A**



## MODEL CODE

DAT	-	<input type="checkbox"/>	TYPE
		V	By pass valve (COCK Piece)
		C	Connector
		A	Alarm switch

## STANDARD SPECIFICATION

Size	10mm(3/8'') - 125mm(5'')
Connection	PT
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2%F.S.
Range ability	5 : 1



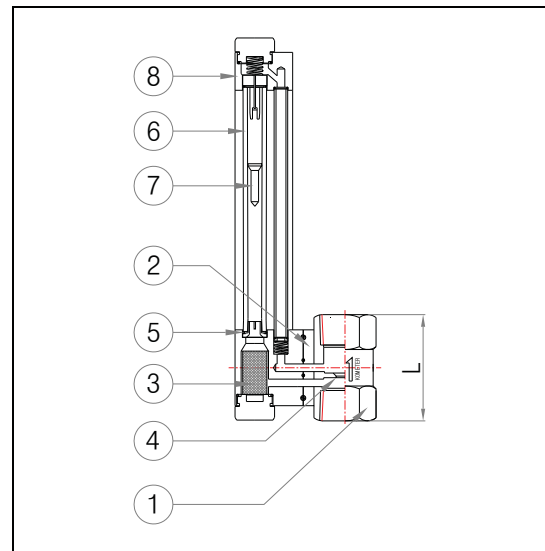
## FLOW RANGES & DIMENSION

Connection size		Liquid m <sup>3</sup> /h		Air Nm <sup>3</sup> /h		L (mm)
		Range	Scale	Range	Scale	
10A	3/8 B	0.08 – 0.42	0.02	0.8 – 4	0.1	70
15A	1/2 B	0.18 – 0.96	0.02	2 – 9.2	0.2	70
20A	3/4 B	0.45 – 2.4	0.05	5 – 23	0.5	70
25A	1 B	0.8 – 4.2	0.1	8 – 40	1	70
32A	1-1/4 B	1.2 – 6.4	0.2	12 – 60	2	70
40A	1-1/2 B	1.8 – 9.4	0.2	18 – 90	2	74
50A	2 B	3.5 – 18.5	0.5	35 – 175	5	85
65A	2-1/2 B	6 – 32	1	60 – 300	10	100
80A	3 B	8 – 42	1	80 – 400	10	100
100A	4 B	16 – 80	2	160 – 800	20	120
125A	5 B	25 – 125	5	250 – 1250	50	120

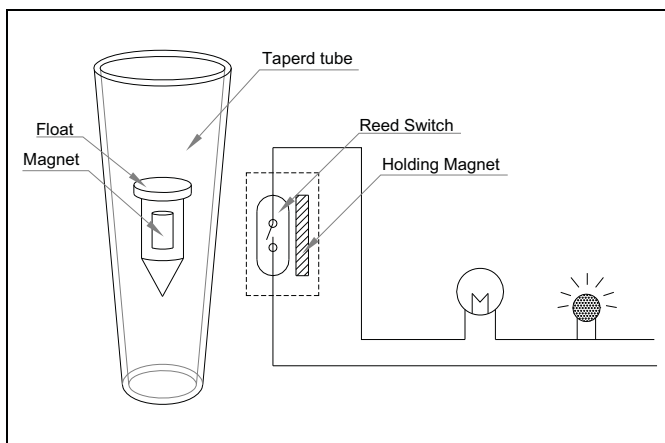
- ✓ The pressure and the temperature of the gas are 1atm and 20oC.
- ✓ If pressure P is kgf.cm2G, multiply  $\sqrt{P+1}$  by the above rate.

## STANDARD MATERIAL

No.	Description	Material		
		A	B	C
1	Body	SS41	SUS304	SUS316
2	Base socket	Brass	SUS304	SUS316
3	Strainer	SUS304		SUS316
4	Orifice	SUS304		SUS316
5	Packing	N.B.R Teflon		
6	Taper tube	Pyrex Glass		
7	Float	SUS304		SUS316
8	Indicator	SS41	SUS304	



## ALARM OUTPUT UNIT ( REED SWITCH TYPE )



Contact Reed switch	Self holding type
Max. Contact capacity	AC 10VA DC 10W
Max. Voltage	AC 125V DC 100V
Max. Current	0.5A
Temp. range	-10°C ~ 60°C



## ■ SUMMARY

DA series is designed by structure for measuring all Gas and Liquid easily also, this flow meter is able to design from large pipe to small pipe and from to large flow with no limited the direction of flow.



**DAF**

## ■ MODEL CODE

DAF	-	<input type="checkbox"/>	TYPE
		V	By pass valve (COCK Piece)
		C	Connector
		A	Alarm switch

## ■ STANDARD SPECIFICATION

Size	10mm(3/8'') – 500mm(20'')
Connection	JIS10K & ANSI150# Flange
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2%F.S.
Range ability	5 : 1



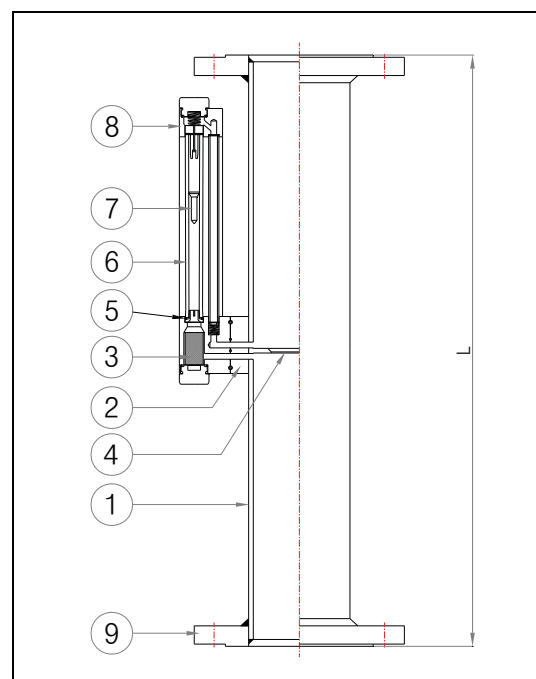
### FLOW RANGES & DIMENSION

Connection size		Liquid m <sup>3</sup> /h		Air Nm <sup>3</sup> /h		L (mm)
		Range	Scale	Range	Scale	
10A	3/8 B	0.08 - 0.42	0.02	0.8 - 4	0.1	350
15A	1/2 B	0.18 - 0.96	0.02	2 - 9.2	0.2	350
20A	3/4 B	0.45 - 2.4	0.05	5 - 23	0.5	350
25A	1 B	0.8 - 4.2	0.1	8 - 40	1	350
32A	1-1/4 B	1.2 - 6.4	0.2	12 - 60	2	350
40A	1-1/2 B	1.8 - 9.4	0.2	18 - 90	2	350
50A	2 B	3.5 - 18.5	0.5	35 - 175	5	350
65A	2-1/2 B	6 - 32	1	60 - 300	10	350
80A	3 B	8 - 42	1	80 - 400	10	350
100A	4 B	16 - 80	2	160 - 800	20	350
125A	5 B	25 - 125	5	250 - 1250	50	350
150A	6 B	35 - 180	5	350 - 1700	50	350
200A	8 B	60 - 320	10	600 - 2800	50	400
250A	10 B	90 - 480	10	900 - 5000	100	400
300A	12 B	160 - 820	20	1600 - 7800	200	400
350A	14 B	200 - 1000	20	2000 - 9500	200	400
400A	16 B	300 - 1500	50	3000 - 14500	500	400
450A	18 B	400 - 2000	50	4000 - 19000	500	400
500A	20 B	500 - 2500	50	5000 - 24000	500	400

- ✓ The pressure and the temperature of the gas are 1atm and 20oC.
- ✓ If pressure P is kgf.cm2G, multiply  $\sqrt{P+1}$  by the above rate.

### STANDARD MATERIAL

No.	Description	Material		
		A	B	C
1	Body	SS41	SUS304	SUS316
2	Base socket	Brass	SUS304	SUS316
3	Strainer	SUS304		SUS316
4	Orifice	SUS304		SUS316
5	Packing	N.B.R Teflon		
6	Taper tube	Pyrex Glass		
7	Float	SUS304		SUS316
8	Indicator	SS41	SUS304	
9	Flange	SS41	SUS304	SUS316



# Orifice flowmeters



## SUMMARY

DA series is designed by structure for measuring all Gas and Liquid easily also, this flow meter is able to design from large pipe to small pipe and from to large flow with no limited the direction of flow.



**DAC**

## MODEL CODE

DAC	-	<input type="checkbox"/>	TYPE	
			V	By pass valve (COCK Piece)
			C	Connector
			A	Alarm switch

## STANDARD SPECIFICATION

Size	10mm(3/8'') – 500mm(20'')
Connection	JIS10K & ANSI150# Flange
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2%F.S.
Range ability	5 : 1



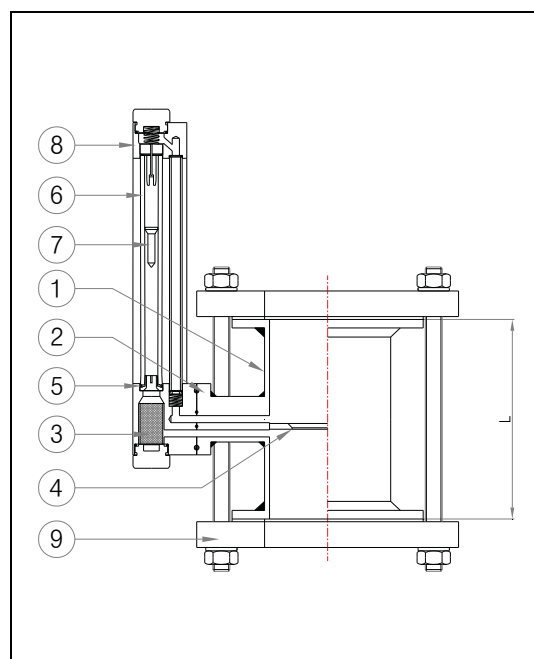
### FLOW RANGES & DIMENSION

Connection size		Liquid m <sup>3</sup> /h		Air Nm <sup>3</sup> /h		L (mm)
		Range	Scale	Range	Scale	
10A	3/8 B	0.08 – 0.42	0.02	0.8 – 4	0.1	60
15A	1/2 B	0.18 – 0.96	0.02	2 – 9.2	0.2	60
20A	3/4 B	0.45 – 2.4	0.05	5 – 23	0.5	60
25A	1 B	0.8 – 4.2	0.1	8 – 40	1	60
32A	1-1/4 B	1.2 – 6.4	0.2	12 – 60	2	60
40A	1-1/2 B	1.8 – 9.4	0.2	18 – 90	2	60
50A	2 B	3.5 – 18.5	0.5	35 – 175	5	60
65A	2-1/2 B	6 – 32	1	60 – 300	10	70
80A	3 B	8 – 42	1	80 – 400	10	70
100A	4 B	16 – 80	2	160 – 800	20	100
125A	5 B	25 – 125	5	250 – 1250	50	100
150A	6 B	35 – 180	5	350 – 1700	50	100
200A	8 B	60 – 320	10	600 – 2800	50	100
250A	10 B	90 – 480	10	900 – 5000	100	100
300A	12 B	160 – 820	20	1600 – 7800	200	100
350A	14 B	200 – 1000	20	2000 – 9500	200	100
400A	16 B	300 – 1500	50	3000 – 14500	500	100
450A	18 B	400 – 2000	50	4000 – 19000	500	100
500A	20 B	500 – 2500	50	5000 – 24000	500	100

- ✓ The pressure and the temperature of the gas are 1atm and 20oC.
- ✓ If pressure P is kgf.cm2G, multiply  $\sqrt{P+1}$  by the above rate.

### STANDARD MATERIAL

No.	Description	Material		
		A	B	C
1	Body	SS41	SUS304	SUS316
2	Base soket	Brass	SUS304	SUS316
3	Strainer	SUS304		SUS316
4	Orifice	SUS304		SUS316
5	Packing	N.B.R Teflon		
6	Taper tube	Pyrex Glass		
7	Float	SUS304		SUS316
8	Indicator	SS41	SUS304	
9	Flange	SS41	SUS304	SUS316

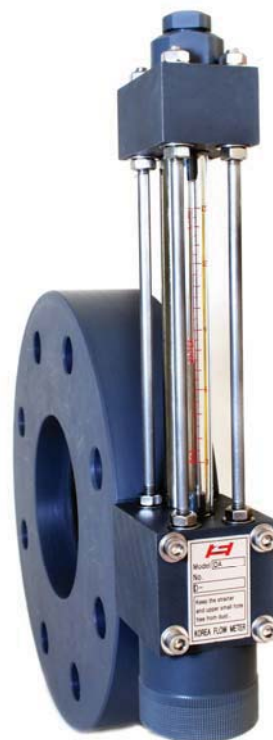


## Orifice flowmeters



### SUMMARY

DA series is designed by structure for measuring all Gas and Liquid easily also, this flow meter is able to design from large pipe to small pipe and from to large flow with no limited the direction of flow.



**DAW**

### MODEL CODE

DAW	-	<input type="checkbox"/>	TYPE	
		V		By pass valve (COCK Piece)
		A		Alarm switch

### STANDARD SPECIFICATION

Size	10mm(3/8'') – 500mm(20'')
Connection	JIS10K & ANSI150# Flange
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2%F.S.
Range ability	5 : 1



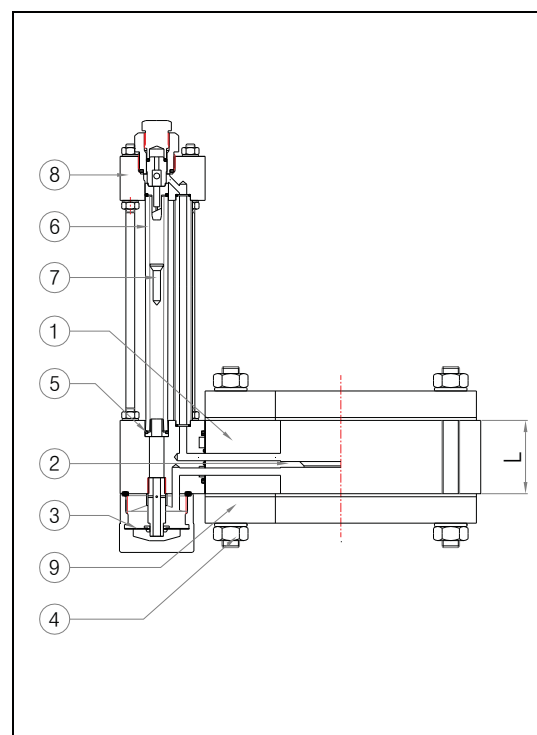
## FLOW RANGES & DIMENSION

Connection size		Liquid m <sup>3</sup> /h		Air Nm <sup>3</sup> /h		L (mm)
		Range	Scale	Range	Scale	
10A	3/8 B	0.08 – 0.42	0.02	0.8 – 4	0.1	50
15A	1/2 B	0.18 – 0.96	0.02	2 – 9.2	0.2	50
20A	3/4 B	0.45 – 2.4	0.05	5 – 23	0.5	50
25A	1 B	0.8 – 4.2	0.1	8 – 40	1	50
32A	1-1/4 B	1.2 – 6.4	0.2	12 – 60	2	50
40A	1-1/2 B	1.8 – 9.4	0.2	18 – 90	2	50
50A	2 B	3.5 – 18.5	0.5	35 – 175	5	50
65A	2-1/2 B	6 – 32	1	60 – 300	10	50
80A	3 B	8 – 42	1	80 – 400	10	50
100A	4 B	16 – 80	2	160 – 800	20	50
125A	5 B	25 – 125	5	250 – 1250	50	50
150A	6 B	35 – 180	5	350 – 1700	50	50
200A	8 B	60 – 320	10	600 – 2800	50	50
250A	10 B	90 – 480	10	900 – 5000	100	50
300A	12 B	160 – 820	20	1600 – 7800	200	50
350A	14 B	200 – 1000	20	2000 – 9500	200	50
400A	16 B	300 – 1500	50	3000 – 14500	500	50
450A	18 B	400 – 2000	50	4000 – 19000	500	50
500A	20 B	500 – 2500	50	5000 – 24000	500	50

- ✓ The pressure and the temperature of the gas are 1atm and 20oC.
- ✓ If pressure P is kgf.cm2G, multiply  $\sqrt{P+1}$  by the above rate.

## STANDARD MATERIAL

No.	Description	Material	
		A	B
1	Body	PVC	CPVC
2	Orifice	PVC	CPVC
3	Strainer	PVC	CPVC
4	Bolt, Nut	SUS304	
5	Packing	N.B.R, EPDM, Viton	
6	Taper tube	Pyrex Glass	
7	Float	PVC	CPVC
8	Indicator	PVC	CPVC
9	Flange	PVC	CPVC







## ■ SUMMARY

DARF is fire fighting pump flow meter.



**DARF**

## ■ MODEL CODE

DAR	-	<input type="checkbox"/>	TYPE	
		T		Screw type
		F		Flange type

## ■ STANDARD SPECIFICATION

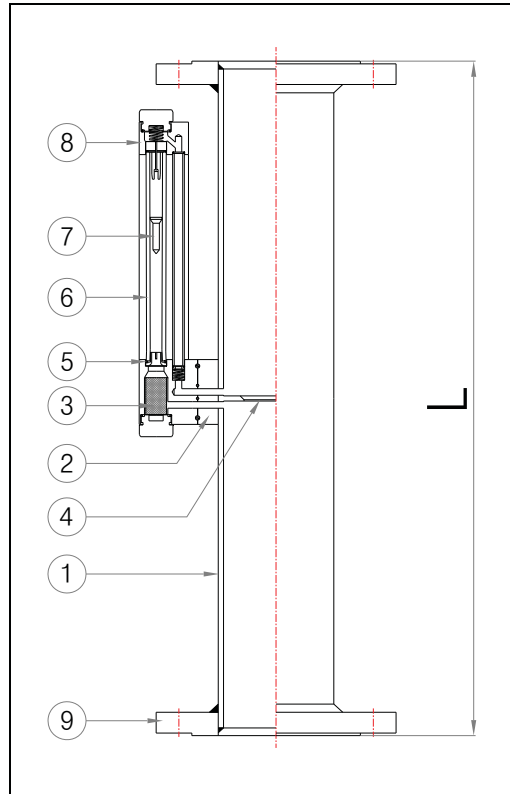
Size	25mm(1'') - 150mm(6'')
Connection	JIS10K & ANSI150# Flange, PT
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2.5%F.S.
Range ability	5 : 1

# Orifice flowmeters



## FLOW RANGES & DIMENSION

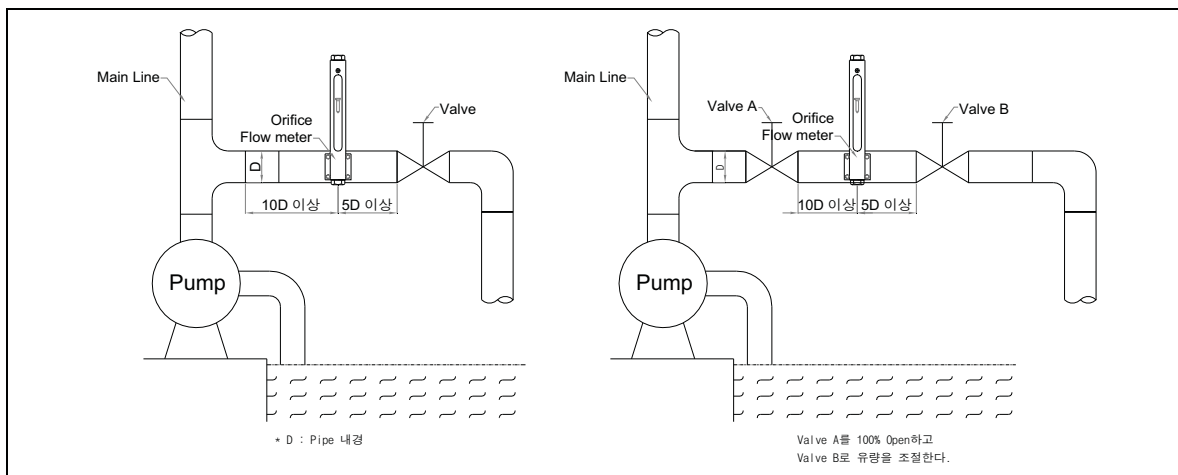
Size	Range (L/min)	1Scale (L/min)	Orifice size	L (mm)	
				Screw	Flange
25A	35 - 180	5	27.6	70	350
32A	70 - 360	10	35.7	74	350
40A	110 - 550	10	41.6	85	350
50A	220 - 1100	20	52.9	90	350
65A	450 - 2200	50	67.9	100	350
80A	700 - 3300	100	80.7	110	350
100A	900 - 4500	100	105.3	120	350
125A	1200 - 6000	200	130.8	130	350
150A	2000 - 10000	200	155.2	130	350



## STANDARD MATERIAL

No.	Description	Material		
		A	B	C
1	Body	SS41	SUS304	SUS316
2	Base socket	Brass	SUS304	SUS316
3	Strainer	SUS304		SUS316
4	Orifice	SUS304		SUS316
5	Packing	N.B.R Teflon		
6	Taper tube			
7	Float	SUS304		SUS316
8	Indicator	SS41	SUS304	
9	Flange	SS41	SUS304	SUS316

## CAUTION





## ■ SUMMARY

DPI type is able to apply all flow (gas and liquid) and especially is designed by suitable structure for opacity flow, high temperature and high pressure.



**DPIF**

## ■ MODEL CODE

DPI	<input type="checkbox"/>	-	<input type="checkbox"/>	TYPE
				Screw type
				Flange type
				Welding flange type
				3-Way valve
			Connector	

## ■ STANDARD SPECIFICATION

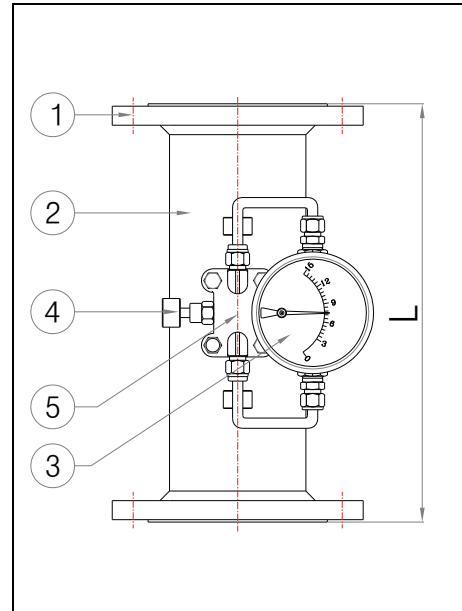
Size	10mm(3/8'') – 500mm(20'')
Connection	JIS10K & ANSI150# Flange, PT
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2%F.S.
Range ability	5 : 1

# Orifice flowmeters



## FLOW RANGES

Connection size		Liquid m <sup>3</sup> /h		Air Nm <sup>3</sup> /h	
		Range	Scale	Range	Scale
10A	3/8 B	0.08 – 0.42	0.02	0.8 – 4	0.1
15A	1/2 B	0.18 – 0.96	0.02	2 – 9.2	0.2
20A	3/4 B	0.45 – 2.4	0.05	5 – 23	0.5
25A	1 B	0.8 – 4.2	0.1	8 – 40	1
32A	1-1/4 B	1.2 – 6.4	0.2	12 – 60	2
40A	1-1/2 B	1.8 – 9.4	0.2	18 – 90	2
50A	2 B	3.5 – 18.5	0.5	35 – 175	5
65A	2-1/2 B	6 – 32	1	60 – 300	10
80A	3 B	8 – 42	1	80 – 400	10
100A	4 B	16 – 80	2	160 – 800	20
125A	5 B	25 – 125	5	250 – 1250	50
150A	6 B	35 – 180	5	350 – 1700	50
200A	8 B	60 – 320	10	600 – 2800	50
250A	10 B	90 – 480	10	900 – 5000	100
300A	12 B	160 – 820	20	1600 – 7800	200
350A	14 B	200 – 1000	20	2000 – 9500	200
400A	16 B	300 – 1500	50	3000 – 14500	500
450A	18 B	400 – 2000	50	4000 – 19000	500
500A	20 B	500 – 2500	50	5000 – 24000	500



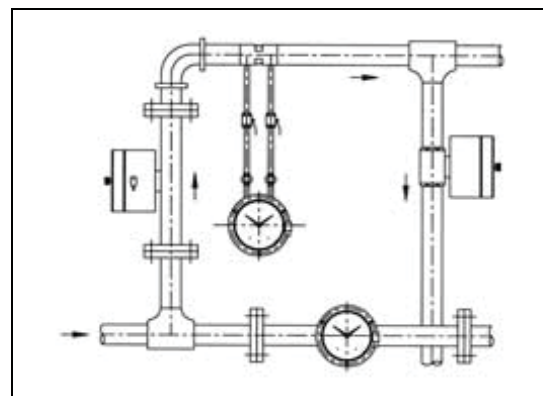
- ✓ The pressure and the temperature of the gas are 1atm and 20oC.
- ✓ If pressure P is kgf.cm2G, multiply  $\sqrt{P+1}$  by the above rate.

## DIMENSION

Connection size		Length ( mm )		
		DPIT	DPIF	DPIC
10A	3/8 B	70	350	60
15A	1/2 B	70	350	60
20A	3/4 B	70	350	60
25A	1 B	70	350	60
32A	1-1/4 B	70	350	60
40A	1-1/2 B	74	350	60
50A	2 B	85	350	60
65A	2-1/2 B	100	350	70
80A	3 B	100	350	70
100A	4 B	120	350	100
125A	5 B	120	350	100
150A	6 B	-	350	100
200A	8 B	-	400	100
250A	10 B	-	400	100
300A	12 B	-	400	100
350A	14 B	-	400	100
400A	16 B	-	400	100
450A	18 B	-	400	100
500A	20 B	-	400	100

## STANDARD MATERIAL

No.	Description	Material		
		A	B	C
1	Flange	SS41	SUS304	SUS316
2	Body			
3	Indicator	Aluminum		
4	3-Way valve	SUS304		SUS316
5	Orifice	SUS304		SUS316



## Orifice flowmeters



### ■ SUMMARY

Differential pressure flow rate transmitter has totalizer or instant flow rate meter inside the meter box. Orifice plate inside the pipe generates pressure difference and the transmitter converts it to electronic signal. The electronic signal is sent out in proportion to the flow rate.



**DPE-S-S**

### ■ MODEL CODE

DPE -	<input type="checkbox"/>	-	<input type="checkbox"/>	TYPE
	S			
			S	Rate & Total + DC 4 - 20mA + Pulse + RS-485(Optional)

### ■ STANDARD SPECIFICATION

Size	10mm(3/8'') - 500mm(20'')
Connection	Standard JIS10K Flange
Temp. range	Max 120°C
Pressure	10 kgf/cm <sup>2</sup>
Input	AC 110/220V 50~60Hz
Output	DC 4 - 20mA ( Option - Pulse )
Accuracy	±2%F.S.
Range ability	10 : 1

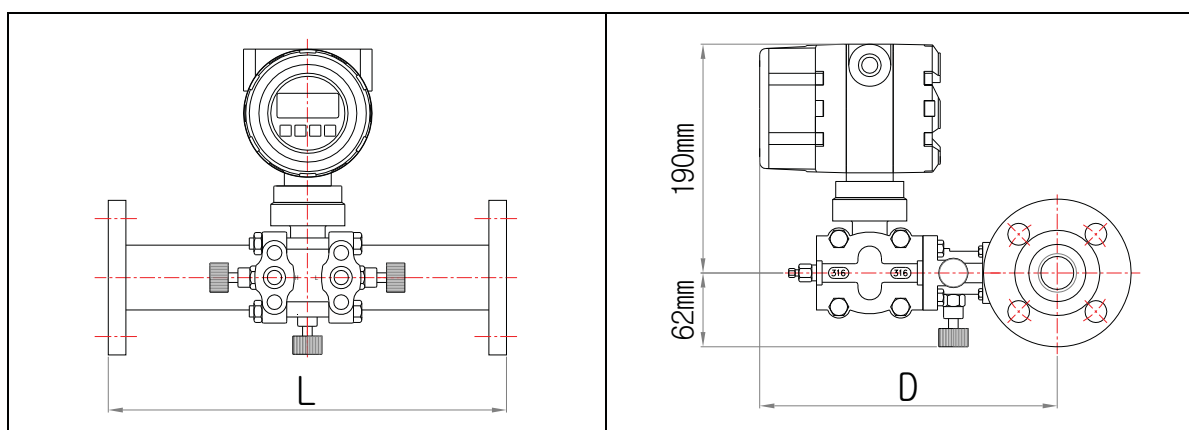


## FLOW RANGES & DIMENSION

Connection size		Liquid m <sup>3</sup> /h		Air Nm <sup>3</sup> /h		L (mm)	D (mm)
		Range	Scale	Range	Scale		
10A	3/8 B	0.1 – 0.5	0.01	0.8 – 4	0.1	350	215
15A	1/2 B	0.2 – 1	0.02	2 – 10	0.2	350	215
20A	3/4 B	0.5 – 2.5	0.05	5 – 25	0.5	350	215
25A	1 B	1 – 5	0.1	10 – 50	1	350	220
32A	1-1/4 B	1.2 – 6.4	0.2	12 – 60	2	350	232
40A	1-1/2 B	2 – 10	0.2	20 – 100	2	350	235
50A	2 B	4 – 20	0.5	40 – 200	5	350	240
65A	2-1/2 B	6 – 32	1	60 – 300	10	350	248
80A	3 B	8 – 42	1	80 – 400	10	350	255
100A	4 B	16 – 80	2	160 – 800	20	350	268
125A	5 B	25 – 125	5	250 – 1250	50	350	280
150A	6 B	35 – 180	5	350 – 1700	50	350	295
200A	8 B	60 – 320	10	600 – 2800	100	400	320
250A	10 B	90 – 480	10	900 – 5000	200	400	345
300A	12 B	160 – 820	20	1600 – 7800	200	400	370
350A	14 B	200 – 1000	20	2000 – 9500	200	400	390
400A	16 B	300 – 1500	50	3000 – 14500	500	400	415
450A	18 B	400 – 2000	50	4000 – 19000	500	400	440
500A	20 B	500 – 2500	50	5000 – 24000	500	400	465

- ✓ The pressure and the temperature of the gas are 1atm and 20oC.
- ✓ If pressure P is kgf.cm2G, multiply  $\sqrt{P+1}$  by the above rate.

## Structure



## Orifice flowmeters



### SUMMARY

Differential pressure flow rate transmitter has totalizer or instant flow rate meter inside the meter box. Orifice plate inside the pipe generates pressure difference and the transmitter converts it to electronic signal. The electronic signal is sent out in proportion to the flow rate.



**NDPE-S**

### MODEL CODE

NDPE -	<input type="checkbox"/>	-	<input type="checkbox"/>	TYPE	
	S				Flow rate + DC 4 - 20mA
			EX		Ex - proof

### STANDARD SPECIFICATION

Size	10mm(3/8'') - 500mm(20'')
Connection	Standard JIS10K Flange
Temp. range	Max 80°C
Pressure	10 kgf/cm <sup>2</sup>
Input	DC 24V ( 2-Wire )
Output	DC 4 - 20mA
Display	Flow rate ( LCD )
Accuracy	±2%F.S.
Range ability	10 : 1

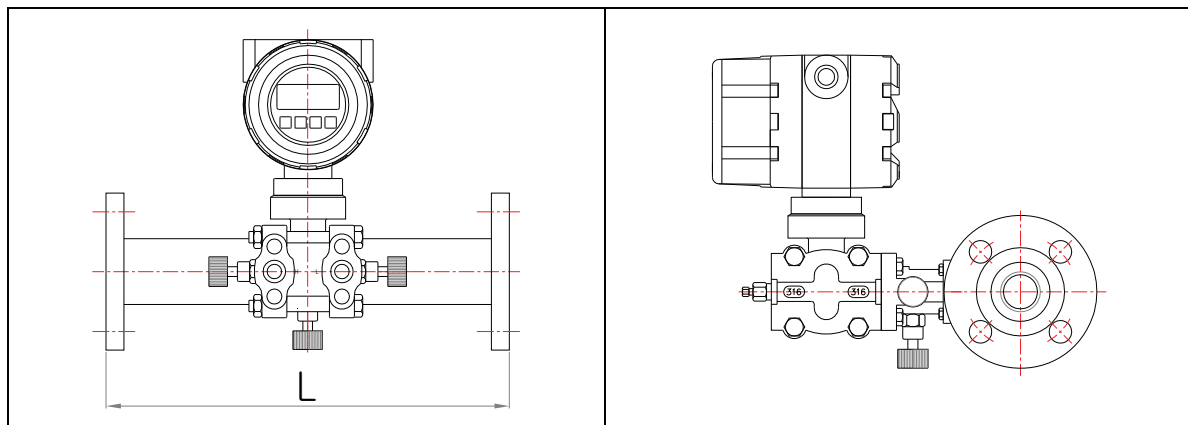


## FLOW RANGES & DIMENSION

Connection size		Liquid m <sup>3</sup> /h		Air Nm <sup>3</sup> /h		L (mm)
		Range	Scale	Range	Scale	
10A	3/8 B	0.1 – 0.5	0.01	0.8 – 4	0.1	350
15A	1/2 B	0.2 – 1	0.02	2 – 10	0.2	350
20A	3/4 B	0.5 – 2.5	0.05	5 – 25	0.5	350
25A	1 B	1 – 5	0.1	10 – 50	1	350
32A	1-1/4 B	1.2 – 6.4	0.2	12 – 60	2	350
40A	1-1/2 B	2 – 10	0.2	20 – 100	2	350
50A	2 B	4 – 20	0.5	40 – 200	5	350
65A	2-1/2 B	6 – 32	1	60 – 300	10	350
80A	3 B	8 – 42	1	80 – 400	10	350
100A	4 B	16 – 80	2	160 – 800	20	350
125A	5 B	25 – 125	5	250 – 1250	50	350
150A	6 B	35 – 180	5	350 – 1700	50	350
200A	8 B	60 – 320	10	600 – 2800	100	<b>400</b>
250A	10 B	90 – 480	10	900 – 5000	200	400
300A	12 B	160 – 820	20	1600 – 7800	200	400
350A	14 B	200 – 1000	20	2000 – 9500	200	400
400A	16 B	300 – 1500	50	3000 – 14500	500	400
450A	18 B	400 – 2000	50	4000 – 19000	500	400
500A	20 B	500 – 2500	50	5000 – 24000	500	400

- ✓ The pressure and the temperature of the gas are 1atm and 20oC.
- ✓ If pressure P is kgf.cm2G, multiply  $\sqrt{P+1}$  by the above rate.

## Structure





# Orifice flowmeters



## ■ SUMMARY

This flow meter can execute the precision level and gravity measurements, a fixed flow rate, due to the inside diaphragm, in spite of pressure change.

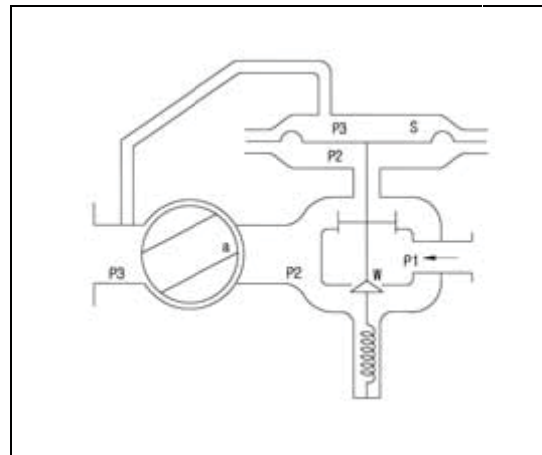
## ■ Principle & Construction

If P1 increase or P3 decrease, flow rate (Q) and it's velocity passing (a) increase, therefore differential pressure (P2-P3) increase. Because of increase in (P@-P3) the special valve rises and (Q) decrease. The equation of the above is given as follows.

$(P2-P3) \times S = W + F$   $(P2-P3) = (W + F) / S$  : Constant  
 because differential pressure of "a" selection is maintained constantly, it can acquire a union flow rate through the opened state of construction device.



**FCV-F**



## ■ MODEL CODE

FCV	-	□	TYPE		
				T	Screw type
				F	Flange type

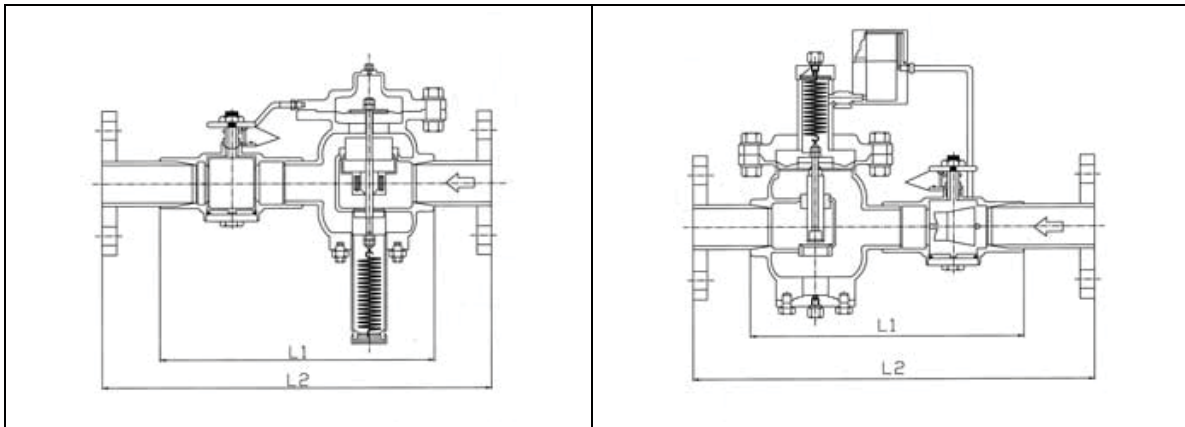
## ■ STANDARD SPECIFICATION

Size	15mm(1/2'') - 150mm(6'')
Connection	JIS10K & ANSI150# Flange, PT
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2%F.S.
Pressure	10kgf/cm <sup>2</sup> ( SS41 ) 30kgf/cm <sup>2</sup> ( SUS304 )



## FLOW RANGES & DIMENSION

Connection size		Flow range			Low press flow rate		L ( mm )	
		H <sub>2</sub> O ( m <sup>3</sup> /h )	AIR 1atm ( Nm <sup>3</sup> /h )	Diff.Press ( kgf/cm <sup>2</sup> )	H <sub>2</sub> O ( m <sup>3</sup> /h )	AIR 1atm ( Nm <sup>3</sup> /h )	L1 Screw	L2 Flange
15A	1/2 B	0.2 - 1	5 - 30	0.3 - 5	0.2 - 0.6	0.15 - 1	200	250
20A	3/4 B	0.5 - 2.5	10 - 50	0.3 - 5	0.4 - 1.5	0.15 - 1	200	270
25A	1 B	0.5 - 4.5	20 - 90	0.3 - 5	0.5 - 2.5	0.15 - 1	250	310
32A	1-1/4 B	1 - 7	30 - 150	0.3 - 5	0.5 - 4	0.15 - 1	260	340
40A	1-1/2 B	2 - 10	40 - 200	0.4 - 5	1 - 6	0.2 - 1	300	390
50A	2 B	4 - 18	50 - 300	0.4 - 5	2 - 10	0.2 - 1	310	420
65A	2-1/2 B	5 - 30	100 - 500	0.6 - 5	3 - 15	0.3 - 1	400	510
80A	3 B	8 - 40	200 - 800	0.6 - 5	4 - 20	0.3 - 1	-	580
100A	4 B	10 - 70	300 - 1200	0.6 - 5	5 - 35	0.3 - 1	-	700
125A	5 B	20 - 120	400 - 2000	0.7 - 5	10 - 60	0.3 - 1	-	900
150A	6 B	40 - 180	500 - 2800	0.7 - 5	20 - 90	0.3 - 1	-	1000



## STANDARD MATERIAL

Description		Material			
		A	B	C	D
Body	2-1/2B 이하	SS41	SCS13	P.V.C	SCS14
	3~4B	SS41	SCS13	-	SCS14
	5B 이상	SS41	SUS304	-	SUS316
Spring		SUS304	SUS304	-	SUS316
Diaphragm		Neoprene	Neoprene	Viton	Teflon
Bolt		SUS304	SUS304	P.V.C	SUS316
Valve		C3064BE	SCS13	P.V.C	SCS14
Scale plate		SUS304	SUS304	-	SUS304
Flange		SS41	SUS304	P.V.C	SUS316
Body		C3064BE	SUS304	-	SUS316

## CAUTION

1. Please install horizontally.
2. Please install in place where effective cleaning is possible.
3. When using, please let all air out from the top.

# Orifice flowmeters



## ■ SUMMARY

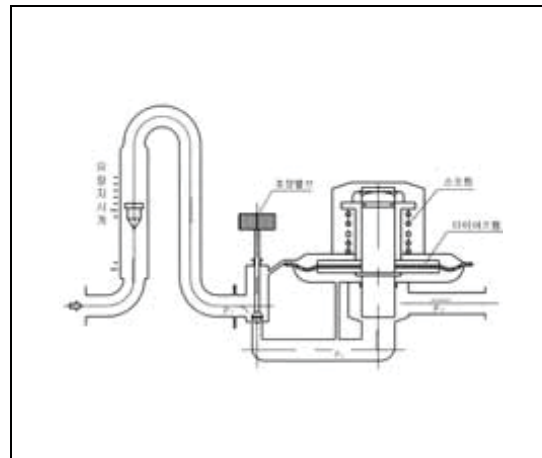
Flow rate is constantly kept by the main valve and diaphragm movement. Set flow rate can be easily changed by rotating the handle of the flow rate setting piece.

## ■ FEATURE

- . No supply energy (Pneumatic pressure, Electrical power supply, etc.) is required.
- . Operation differential pressure ranges wide.
- . No vibration during operation.
- . Response of changed flow rate is almost instantaneous.
- . Pressure loss: insignificant.
- . Applicable to gas if upstream pressure or downstream pressure is constant
- . Flow-Matic Mini Valve with flow rate indicator model FVNT minimizes setting error.
- . Flow switch can be attached.



**FCVN-T**



## ■ MODEL CODE

FCVN	-	<input type="checkbox"/>	TYPE	
		T		Screw type
		F		Flange type

## ■ STANDARD SPECIFICATION

Size	10mm(3/8'') - 15mm(1/2'')
Connection	JIS10K & ANSI150# Flange, PT
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±2%F.S.
Pressure	10kgf/cm <sup>2</sup> ( SS41 ) 30kgf/cm <sup>2</sup> ( SUS304 )

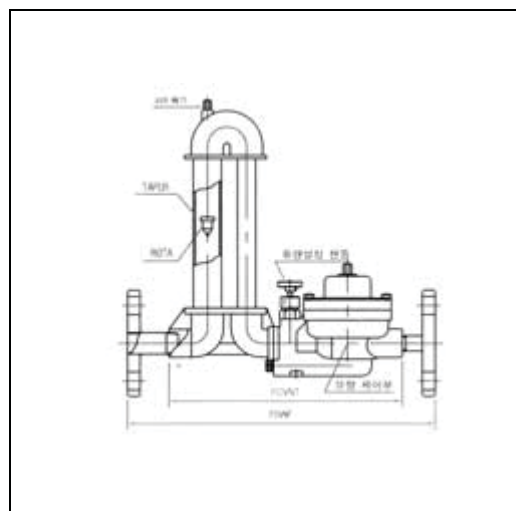
## Orifice flowmeters



### FLOW RANGES & DIMENSION

Connector size		Standard Diff.Press 0.3 – 3kgf/cm <sup>2</sup>		L (mm)	
		H <sub>2</sub> O (L/h)	AIR(NL/h)	Screw	Flange
10A	3/8 B	0.6 – 4	10 – 80	220	290
		2 – 15	40 – 300		
		4 – 30	100 – 600		
		6 – 50	150 – 1200		
15A	1/2 B	15 – 80	300 – 2000		
		20 – 120	500 – 3000		
		30 – 200	600 – 4000		
		50 – 300	700 – 5000		
		100 – 500	1000 – 7000		

- ✓ The pressure and the temperature of the gas are 1atm and 20oC.



### CAUTION

1. Please install horizontally.
2. Please install in place where effective cleaning is possible.
3. When using, please let all air out from the top.

### STANDRAD MATERIAL

Description	Material		
	A	B	C
Body	BC	SCS14	SCS14
Diaphragm	Neoprene	Neoprene	Teflon P.V.C
Spring	SUS304		
Valve	SUS304		
Taper tube	Pyrex Glass		
Float	SUS304 Ruby Aluminum Teflon P.V.C		
Flange	SS41	SUS304	SUS316
Others	BC	SUS304	SUS316

## Orifice flowmeters



### SUMMARY

- . No other energy required (self-working type)
- . Wide operating differential pressure range
- . Built-in damper available for preventing vibration
- . Built-in strainer available for protecting damper
- . Usable for either horizontal or vertical piping
- . Competitively priced



**FV-T**

### MODEL CODE

FV	-	□	TYPE		
				T	Screw type
				F	Flange type

### STANDARD SPECIFICATION

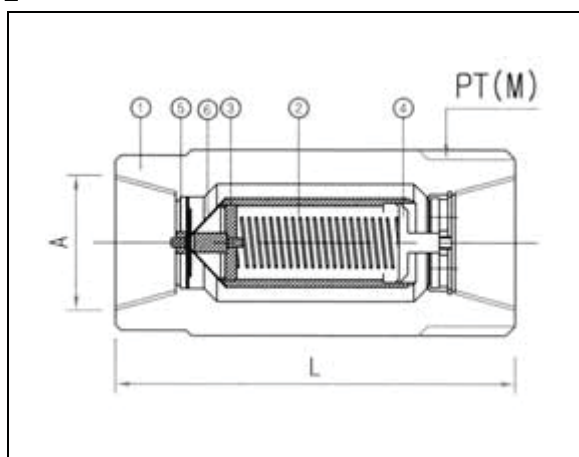
Size	15mm(1/2'') – 50mm(2'')
Connection	JIS10K Flange, PT
Temp. range	Max 120°C
Allowable Thermal Shock	Max 80°C
Accuracy	±5%F.S.
Pressure	14kgf/cm <sup>2</sup>



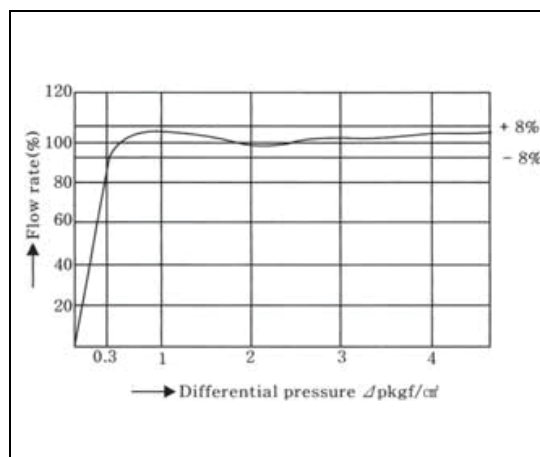
## FLOW RANGES

Connector Size		H <sub>2</sub> O (Standard D.P.)		AIR (D.P. 0.5kgf/cm <sup>2</sup> )	
		Flow rate (m <sup>3</sup> /h)	One Scale (kg/cm <sup>2</sup> )	Flow rate (Nm <sup>3</sup> /h)	One Scale (kg/cm <sup>2</sup> )
15A	1/2 B	0.5 – 1.2	0.3 – 5	4 – 12	0.05 – 5
20A	3/4 B	0.9 – 2.5	0.4 – 7	6 – 18	0.05 – 5
25A	1 B	1 – 4	0.4 – 7	8 – 30	0.05 – 5
32A	1-1/4 B	1.2 – 6.5	0.4 – 7	10 – 48	0.05 – 5
40A	1-1/2 B	2 – 10	0.4 – 7	15 – 90	0.05 – 5
50A	2 B	3 – 18	0.4 – 7	20 – 162	0.05 – 5

## STANDARD MATERIAL



## Flow characteristic curve



No.	Title	Material
1	Body	BS SUS304
2	Spring	SUS304
3	Shaft	SUS304
4	Board	SUS304
5	Nut	SUS304
6	Strainer	SUS304