

Rotameter Product Catalogue



Liquid Flowmeter

LORRIC® paranoid about performance

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F22Series - 192mm middle size pipe size 1/2"-3/4" F22 Series





Product Features · Use -

- Designed for use with highly corrosive solutions.
- Equipped with an inductor, which confirms the pipeline's current capacity by means of detecting the floating migration. The inductor can be connected instruments or computers and is often used as part of the control or alarm system.
- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.
- Each batch of flow meters will be calibrated before delivery for our best precision guarantee.

Standard Specs

Model: F22PSU, F22 w/ Inductor PSU

Adaptor Size: 1/2", 3/4"

Applicable Fluid: Liquid (Highly corrosive)

Flow direction: From the bottom up

Engraved degree scales: Laser engraved degree

Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)

Working Pressure: 6.0kg/cm²

Full Scale Accuracy: ±5% F.S.

Product Material -

Body - PSU

Float - PP, PVDF, Telfone

Guide Rod - No

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP, PSU

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring- EPDM, VITON

Adaptor Material

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

%BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range*	Standard gravity
F22-4PM PVC float	0.3-4.0 L/min	1.0
F22-5LPM PVDF float	0.5-5.0 L/min	1.0
F22-8LPM Teflon float	0.8-8.0 L/min	1.0
F22-10LPM Teflon float	1.0-10 L/min	1.0
F22-500LPH Teflon float	50-500 L/h	1.0
F22 w/ inductor-6LPM PP float	0.5-6.0 L/min	1.0
F22 w/ inductor-11LPM PVDF float	1.0-11 L/min	1.0

* Liquid flow meters are calibrated for 20°C water.

Maximum working temperature for different adaptor materials

Adaptor Types	Maximum working temperature materials			
Adaptor Types	~ 50℃	~ 60℃	~ 100℃	
Welding Type	UPVC	-	-	
Male / Female Thread	UPVC	PP	PSU	
Butt-fusion Adaptor	PP	PP	-	
Panel Elbow Male Thread	UPVC	-	-	

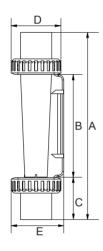
When maximum working temperature is over 50°C, the material for union nuts/ guide rod bottom and O-ring have to be PSU and VITON.



No	No. Series	Material (Main material)≋ ¹			
INU.		1	2	3	4
1	Body	PSU	PSU	PSU	PSU
2	Float	PP/ PVDF / Teflon	PP/ PVDF / Teflon	PP/ PVDF / Teflon	PP/ PVDF / Teflon
3	Guide Rod	ABS	ABS	ABS	ABS
4,8	Pointer	UPVC	UPVC	UPVC	PSU
5,9	Adaptor	UPVC	UPVC	PP* 2	PSU ^{*3}
6,10	O-ring	EPDM	VITON	VITON	VITON
7,11	Guide Rod Bottom	PP	PP	PP	PP

- * 1.Material for different parts is optional for each flowmeter.
- ※ 2.For thread and welding adaptor only.
- * 3.For thread adaptor only.

Parts Size



Adaptor Material	А	В	С	D	Е
3/4"Male Thread	191	104	43.5	51	54
3/4"Female Thread	188	104	42	51	54
3/4" JIS	194	104	45	51	54
1/2"Male Thread	182	104	39	51	54
1/2"Female Thread	191	104	43.5	51	54
1/2" JIS	183	104	39.5	51	54
PP OD20 ID15.3	184	104	40	51	54

Unit: mm

Specification inquiry (F22)

Fluid -

- Specific gravity ☐Standard-1.0 ☐Other_____
- Pressure □Standard-6.0kg/cm² □Other__kg/cm²
- Temperature □Normal temperature □Other °C
- Scale Range -____ L/min ~____L/min
- - Other____

* Contact us with below information.

- Adaptor Material
 - ■Male Thread
 - ☐Female Thread
 - ☐Butt-fusion Adaptor ☐Panel Elbow Thread ☐Other __
- Inductor □Yes □No
- Other ____

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F32BSeries - 195mm middle size pipe size 1/2"-1" F32B series





Product Features · Use -

- Designed for use with highly corrosive solutions.
- Equipped with an inductor, which confirms the pipeline's current capacity by means of detecting the floating migration. The inductor can be connected instruments or computers and is often used as part of the control or alarm system.
- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.
- Each batch of flow meters will be calibrated before delivery for our best precision guarantee.

Standard Specs

- Model: F32B PSU, F32B w/ Inductor PSU
- Adaptor Size: 1/2", 3/4", 1"
- Applicable Fluid: Liquid (Highly corrosive)
- Flow direction: From the bottom up
- Engraved degree scales: Laser engraved degree scales
- Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)
- Working Pressure: 6.0 kg/cm²
- Full Scale Accuracy: ±5% F.S.
- Product Material

Body - PSU

Float - PVC, PP, PVDF, Teflon

Guide Rod - None

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material -

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

* BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range*	Standard gravity
F32B - 18LPM	9.0-18 L/min	1.0
F32B - 32LPM	16-32 L/min	1.0
F32B - 60LPM	30-60 L/min	1.0
F32B - 90LPM	45-90 L/min	1.0

^{*} Liquid flow meters are calibrated for 20°C water.

Maximum working temperature for different adaptor materials

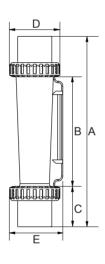
Adapter Types	Maximum working temperature materials		
Adaptor Types	~ 50°C	~ 60°C	
Welding Type	UPVC	-	
Male / Female Thread	UPVC	PP	
Butt-fusion Adaptor	PP	PP	
Panel Elbow Male Thread	UPVC	-	



No.	Series	Material (Main material)* 1			
INU.	Selles	1	2	3	4
1	Body	PSU	PSU	PSU	PSU
2	Float	PP	PP	PP	PP
3	Guide Rod	ABS	ABS	ABS	ABS
4,8	Pointer	UPVC	UPVC	UPVC	UPVC
5,9	Adaptor	UPVC	UPVC	PP* 2	PSU ^{* 3}
6,10	O-ring	EPDM	VITON	VITON	VITON
7,11	Guide Rod Bottom	PP	PP	PP	PP

- * 1.Material for different parts is optional for each flowmeter.
- * 2. For thread and welding adaptor only.
- * 3. For thread adaptor only.

Parts Size



Adaptor Material	А	В	С	D	Е
1" Male Thread	210	111	49.5	60	64
1" Female Thread	210	111	49.5	60	64
1" JIS	195	111	42	60	64
3/4" Male Thread	196	111	42.5	60	64
3/4" Female Thread	211	111	50	60	64
3/4" JIS	200	111	44.5	60	64
1/2" JIS	190	111	39.5	60	64
PP OD40.4 ID35	197	111	43	60	64
PP OD33 ID25.3	193	111	41	60	64

Unit: mm

Specification inquiry (F32B)

 $\ensuremath{\,\%\,}$ Contact us with below information.

- Fluid _____
 Specific gravity □Standard-1.0 □Other ____
 Pressure □Standard-6.0kg/cm² □Other __kg/cm²
 Temperature □Normal temperature □Other __°C
 Scale Range ____ L/min ~ ____L/min
- Adaptor Material
 - ☐Welding Type ☐Male Thread
 - ☐ Female Thread ☐ Butt-fusion Adaptor ☐ Other
- Inductor □Yes □No
- Other _____

Adaptor	Siza -	1"	IJς
Auguloi	0120 -		σ

Other ____

F34Series - 270mm large size pipe size 1/2"-1"

F34 series





Product Features · Use -

- Designed for use with highly corrosive solutions.
- Equipped with an inductor, which confirms the pipeline's current capacity by means of detecting the floating migration. The inductor can be connected instruments or computers and is often used as part of the control or alarm system.
- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.
- Each batch of flow meters will be calibrated before delivery for our best precision guarantee.

Standard Specs

Model: F34 PSU, F34 w/ Inductor PSU

Adaptor Size: 1/2", 3/4", 1"

Applicable Fluid: Liquid (Highly corrosive)

Flow direction: From the bottom up

Engraved degree scales: Laser engraved degree scales

Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)

Working Pressure: 6.0 kg/cm²

Full Scale Accuracy: ±5% F.S.

Product Material -

Body - PSU

Float - PP, PVDF Guide Rod - No

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP, PSU

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material -

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

* BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range*	Standard gravity
F34 - 30LPM	3.0-30 L/min	1.0
F34 - 50LPM	5.0-50 L/min	1.0
F34 - 60LPM	6.0-60 L/min	1.0
F34 - 80LPM	8.0-80 L/min	1.0
F34 - 100LPM	10-100 L/min	1.0
F34 - 120LPM	12-120 L/min	1.0

[※] Liquid flow meters are calibrated for 20°C water.

Maximum working temperature for different adaptor materials

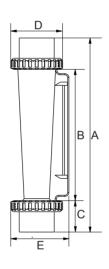
Adaptor Types	Maximum working temperature materials			
	~ 50℃	~ 60℃		
Welding Type	UPVC	-		
Male / Female Thread	UPVC	PP		
Butt-fusion Adaptor	PP	PP		
Panel Elbow Male Thread	UPVC	-		



No.	Sorios	Material (Main material) * 1				
INU.	Selles	1	2	3	4	
1	Body	PSU	PSU	PSU	PSU	
2	Float	PP	PP	PP	PP	
3	Guide Rod	ABS	ABS	ABS	ABS	
4,8	Pointer	UPVC	UPVC	UPVC	UPVC	
5,9	Adaptor	UPVC	UPVC	PP* 2	PSU ^{® 3}	
6,10	O-ring	EPDM	VITON	VITON	VITON	
7,11	Guide Rod Bottom	PP	PP	PP	PP	

- * 1.Material for different parts is optional for each flowmeter.
- * 2. For thread and welding adaptor only.
- * 3. For thread adaptor only.

Parts Size



Adaptor Material	А	В	С	D	Е
1" Male Thread	270	171	49.5	60	68
1" Female Thread	270	171	49.5	60	68
1" JIS	255	171	42	60	68
3/4" Male Thread	256	171	42.5	60	68
3/4" Female Thread	271	171	50	60	68
3/4" JIS	260	171	44.5	60	68
1/2" JIS	249	171	39	60	68
PP OD40.4 ID35	257	171	43	60	68
PP OD33 ID25.3	253	171	41	60	68

Unit: mm

Specification inquiry (F34)

■ Adaptor Size - □1" JIS

 $\ensuremath{\,\%\,}$ Contact us with below information.

- Fluid Specific gravity □Standard-1.0 □Other □
 Pressure □Standard-6.0kg/cm² □Other __kg/cm²
 Temperature □Normal temperature □Other __°C
 Scale Range ____L/min ~ ____L/min
- Adaptor Material
 - ☐Welding Type ☐Male Thread
 - ☐ Female Thread ☐ Butt-fusion Adaptor
 - ☐Panel Elbow Thread ☐Other___
- Inductor □Yes □No
- madotor = roo = rt
- Other _____

Other		

F45Series - 346mm large size pipe size 1-1/2"-2" F45 series





Product Features · Use -

- The flange flow meter is equipped with four stainless steel poles on four sides and uses flange adaptor. This flow meter is robust, highly secure and ideal for high pressure conditions. This flow meter's lifetime is usually longer than ordinary flow meters.
- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.
- Each batch of flow meters will be calibrated before delivery for our best precision guarantee.
- Hastelloy float is available for corrosive environment.

Standard Specs

Model: F45PSU, F45H PSU

Adaptor Size: 1"-1/2", 2"

Applicable Fluid: Liquid

Flow direction: From the bottom up

Engraved degree scales: Laser engraved degree scales

Fluid Temperature: 50°C (Standard: UPVC adaptor)

Working Pressure: 6.0 kg/cm²

Full Scale Accuracy: ±5% F.S.

Product Material

Body - PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316, Ti, Hastelloy C

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Flange: UPVC

Union Nuts - UPVC

O-ring - EPDM, VITON

Iron pillar (Flange type only) - Stainless 316, 304, 420

Adaptor Material

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor, Flange

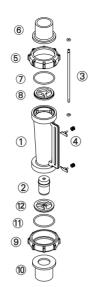
* BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range*	Standard gravity
F45 (PSU,H PSU) - 100LPM	10-100 L/min	1.0
F45 (PSU,H PSU) - 150LPM	15-150 L/min	1.0
F45 (PSU,H PSU) - 200LPM	20-200 L/min	1.0
F45 (PSU,H PSU) - 250LPM	25-250 L/min	1.0
F45 (PSU,H PSU) - 300LPM	30-300 L/min	1.0
F45 (PSU,H PSU) - 450LPM	50-450 L/min	1.0
F45 (PSU,H PSU) - 600LPM	100-600 L/min	1.0

 $[\]ensuremath{\,\%\,}$ Liquid flow meters are calibrated for 20°C water.

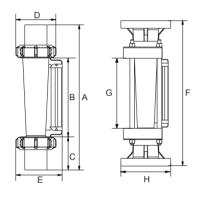
[※] F45 PC product has ceased production.



No.	Series	Material (Main material)∗ ¹				
INO.	Selles	1	2	3		
1	Body	PSU	PSU	PSU		
2	Float	S316	Hastelloy C	Hastelloy C		
3	Guide Rod	S316	Ti	Hastelloy C		
4	Pointer	ABS	ABS	ABS		
5,9	Union Nuts	UPVC	UPVC	UPVC		
6,10	Adaptor	UPVC	UPVC	PSU ^{※ 2}		
7,11	O-ring	VITON	VITON	VITON		
8,12	Guide Rod Bottom	PP	PP	PP		

- * 1.Material for different parts is optional for each flowmeter.
- ※ 2.For thread adaptor only. * 3.F45 PC product has ceased production.

Parts Size



Adaptor Material	A/F*	B / G *	C/H*	D	Е
1"-1/2" Male Thread	346	187	79.5	109	127
1"-1/2" JIS	345	187	79	109	127
2" Male Thread	345	187	79	109	127
2" Female Thread	345	187	79	109	127
2" JIS	357	187	85	109	127
PP OD72.7 ID60.2	305	187	59	109	127
PP OD60 ID48.10	345	187	79	109	127
2" Flange	390	187	155 *	-	-

* Size of flange type

Unit: mm

Specification inquiry (F45)

■ Fluid - □Water □Other _____

* Contact us with below information.

- Specific gravity Standard-1.0 Other
- Pressure □Standard-6.0kg/cm² □Other kg/cm²
- Temperature □Normal temperature □Other °C
- lacktriangle Scale Range L/min \sim L/min
- Adaptor Size □1"-1/2" □2"
 - Other

- Adaptor Material
 - ☐Welding Type
 - ☐ Male Thread ☐Female Thread ☐Butt-fusion Adaptor
 - ☐ Panel Elbow Thread ☐ Other __
- Material
- ☐ 1 Body PSU
- ☐ 2 Body PSU Hastelloy C FloaT, Ti Guide Rod
- ☐ 3 Body PSU Hastelloy C Float & Guide Rod
- 4 Other

Specs besides above listed information

F45Magnetic - Magnetic Duel-Indicator pipe size 1-1/2" F45M





Product Features · Use -

- Ideal for dark color and or solutions that easily precipitate.
- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.
- Each batch of flow meters will be calibrated before delivery for our best precision guarantee.

Standard Specs

Model: F45M PSU, F45MH PSU

Adaptor Size: 1"-1/2", 2"

Applicable Fluid: Liquid (Dark liquid)

Flow direction: From the bottom up

Engraved degree scales: Laser engraved degree scales

Fluid Temperature: 50°C (Standard)

Working Pressure: 6.0 kg/cm²

Full Scale Accuracy: ±5% F.S.

Product Material

Body - PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316, Ti, Hastelloy C

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Iron pillar (Flange type only) - Stainless 316, 304, 420

Adaptor Material -

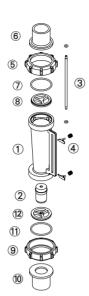
Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor, Flange

* BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range»	Standard gravity
F45M PSU - 300LPM	50-300 L/min	1.0
F45M PSU - 450LPM	50-450 L/min	1.0
F45M PSU - 600LPM	100-600 L/min	1.0

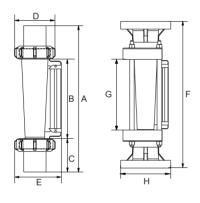
Liquid flow meters are calibrated for 20°C water.



No	Carrian	Material (Main material)*			
No.	Series	1	2	3	4
1	Body	PSU	PSU	PSU	PSU
2	Float	S316	S316	S316	S316
3	Guide Rod	S316	S316	S316	S316
4	Pointer	ABS	ABS	ABS	ABS
5,9	Union Nuts	UPVC	UPVC	UPVC	UPVC
6,10	Adaptor	UPVC	UPVC	Flange UPVC	Male / Female Thread PSU
7,11	O-ring	VITON	EPDM	VITON	VITON
8,12	Guide Rod Bottom	PP	PP	PP	PP

^{*} Material for different parts is optional for each flowmeter.

Parts Size



Adaptor Material	A/F*	B/G*	C/H*	D	Е
1"-1/2" Female Thread	346	187	79.5	109	127
1"-1/2" JIS	345	187	79	109	127
2" Male Thread	345	187	79	109	127
2"Female Thread	345	187	79	109	127
2" JIS	357	187	85	109	127
PP OD72.7 ID60.2	305	187	59	109	127
PP OD60 ID48.10	345	187	79	109	127
2" Flange	390	187	155	-	-

* Size of flange type

Unit: mm

Specification inquiry (F45M PSU)

* Contact us with below information.

● Fluid - □Water □Other					
■ Specific gravity - □Standard-1.0 □Other					
■ Pressure - □Standard-6.0kg/cm² □Otherkg/cm²					
■ Temperature - □Normal temperature □Other°C					
Scale Range L/min ~L/min					
■ Adaptor Size - □1"-1/2" □2"					
Other					

- Adaptor Material
 - ■Welding Type
- ■Male Thread
- ☐ Female Thread
- ☐Butt-fusion Adaptor
- ☐Panel Elbow Thread ☐Other
- Material
 - ☐ 1 UPVC ☐ 2 EPDM O-ring
 - ☐ 3 UPVC Flange

 - ☐ 4 PSU Male / Female Thread ☐ 5 Other
 - Specs besides above listed information

F46Series - 346mm large size pipe size 1-1/2"-2" F46 Series





Product Features · Use

- Designed for use with highly corrosive solutions.
- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.
- Each batch of flow meters will be calibrated before delivery for our best precision guarantee.

Standard Specs

Model: F46PSU

Adaptor Size: 1"-1/2", 2"

Applicable Fluid: Liquid (Highly corrosive)

Flow direction: From the bottom up

Engraved degree scales: Laser engraved degree scales

Fluid Temperature: 50°C (Standard)

Working Pressure: 6.0 kg/cm²

Full Scale Accuracy: ±5% F.S.

Product Material

Body - PSU

Float - PP, Teflon

Guide Rod - None

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material -

Welding Type, Male Thread, Female Thread,

Butt-fusion Adaptor

BSPT is standard thread type. NPT is available for custom order.

Scale Range

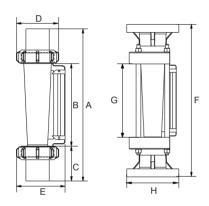
Product Code	Scale Range*	Standard gravity
F46PSU - 100LPM Telfon float	20-100 L/min	1.0
F46PSU - 150LPM PP float	30-150 L/min	1.0
F46PSU - 200LPM PP float	35-200 L/min	1.0
F46PSU - 300LPM PP float	35-250 L/min	1.0



No.	Series	Material (Main material)* 1					
INU.	Series	1	2	3	4		
1	Body	PSU	PSU	PSU	PSU		
2	Float	Teflon	PP	PP	PP		
3	Guide Rod	ABS	ABS	ABS	ABS		
4,8	Pointer	UPVC	UPVC	UPVC	UPVC		
5,9	Adaptor	UPVC	UPVC	UPVC	PSU ^{* 2}		
6,10	O-ring	VITON	EPDM	VITON	VITON		
7,11	Guide Rod Bottom	PP	PP	PP	PP		

- * 1.Material for different parts is optional for each flowmeter.
- * 2. For thread adaptor only.

Parts Size



Adaptor Material	A/F*	B / G *	C/H*	D	Е
1"-1/2" Female Thread	346	187	79.5	109	127
1"-1/2" JIS	345	187	79	109	127
2"Male Thread	345	187	79	109	127
2"Female Thread	345	187	79	109	127
2" JIS	357	187	85	109	127
PP OD72.7 ID60.2	305	187	59	109	127
PP OD60 ID48.10	345	187	79	109	127
2" Flange	390	187	155	-	-

Size of flange type

Unit: mm

Specification inquiry (F46)

* Contact us with below information.

- Fluid □Water □Other □
- Specific gravity □Standard-1.0 □Other
- Pressure □Standard-6.0kg/cm² □Other kg/cm²
- Temperature □Normal temperature □Other ___°C
- Scale Range L/min ~ L/min
- Adaptor Size □1"-1/2" □2"

- Adaptor Material
 - ■Welding Type
 ■Male Thread
 - ☐ Female Thread ☐ Butt-fusion Adaptor
 - ☐ Panel Elbow Thread ☐ Other_
- Material
- ☐ 1 Teflon float ☐ 2 PP float
- ☐ 3 PP float VITON O-ring
- ☐ 4 PP float PSU adaptor
- ☐ 5 Other

Specs besides above listed information __

F101- New 168mm middle size pipe size 1/2"

F101 series





Product Features · Use —

4 design innovations to improve usability:

New body design: Decreases the vibration when working which stabilises flow distribution./ New indicator design: Easily adjustable and positionable./ Thickened threads for caps: Caps are easy to be locked even under bad concentricity./ Models with and without guide rods are able to share the same adaptors.

- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.

Standard Specs

Model: F101PC, F101PSU, F101H PSU

Adaptor Size: 1/2"

Applicable Fluid: Liquid

Flow direction: From the bottom up

Fluid Temperature: 50°C (Standard: UPVC adaptor)

60°C (PP adaptor) 70°C(PVDF adaptor)

- Working Pressure: 5.0 kg/cm² MAX
- Full Scale Accuracy: ±5% F.S.
- Product Material

Body - PC, PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316, Ti, Hastelloy C

Guide Rod Bottom - PP, FRPP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PVDF

Butt-fusion Adaptor: PP

Union Nuts - UPVC, Aluminum

O-ring - EPDM, VITON

Adaptor Material

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

 $\ensuremath{\mathbb{X}}$ BSPT is standard thread type. NPT is available for custom order.

Scale Range

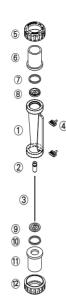
Product Code	Scale Range*1*2 (L/min)
F101-2LPM	0.2-2.0 / S, H
F101-5LPM	0.5-5.0 / S, H
F101-10LPM	1.0-10 / S, H
F101-15LPM	1.5-15 / S, H
F101-20LPM	2.0-20 / S, H

- ¾ 1.Liquid flow meters are calibrated for 20°C water.
- % 2." / "float material, S- Stainless 316, H- Hastelloy C.

Maximum working temperature for different adaptor materials

Adaptor Types	Maximum working temperature materials				
Adaptor Types	~ 50℃	~ 60°C	~ 70℃		
Welding Type	UPVC	-	-		
Male / Female Thread	UPVC	-	PVDF		
Butt-fusion Adaptor	-	PP	-		

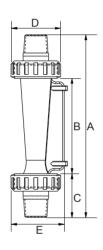
 $\mbox{\%}$ When maximum working temperature is over 50°C, the material for guide rod bottom and union nuts have to be PSU and aluminium.



No.	Series	Material (Main material)*						
INO.	Selles	1	2	3	4			
1	Body	PC	PC	PSU	PSU			
2	Float	S316	S316	Hastelloy C	Hastelloy C			
3	Guide Rod	S316	S316	Ti	Hastelloy C			
4	Pointer	PP	PP	PP	PP			
5,12	Union Nuts	UPVC	UPVC	UPVC	Aluminum			
6,11	Adaptor	UPVC	UPVC	UPVC	UPVC			
7,10	O-ring	EPDM	VITON	VITON	VITON			
8,9	Guide Rod Bottom	PP	PP	PP	PP			

^{*} Material for different parts is optional for each flowmeter.

Parts Size



Adaptor Material	А	В	С	D	Е
1/2"Male Thread	164	85	39.5	43	49.5
1/2"Female Thread	166	85	40.5	43	49.5
1/2" JIS	166	85	40.5	43	49.5

Unit: mm

Specification inquiry (F101)

* Contact us with below information.

● Fluid - □Water □Other
Specific gravity - □Standard-1.0 □Other
■ Pressure - ☐Standard-5.0kg/cm² ☐Otherkg/cm²
■ Temperature - Normal temperature Other C
■ Scale Range L/min ~ L/min
■ Adaptor Size - □3/4" JIS □Other
■ Adaptor Material - □Welding Type □Male Thread
☐Female Thread ☐Butt-fusion Adaptor
□Other

٨	/late	rial	

- ☐ 1 Body PC ☐ 2 Body PSU
- ☐ 3 Body PSU Hastelloy C FloaT, Ti Guide Rod
- ☐ 4 Body PSU Hastelloy C Float & Guide Rod

 Adaptor PSU (for high working temperature)
- 5 Other

Specs besides above listed information ____

F201- New 192mm middle size pipe size1/2"-3/4" F201 series





Product Features Use -

4 design innovations to improve usability:

New body design: Decreases the vibration when working which stabilises flow distribution./ New indicator design: Easily adjustable and positionable./ Thickened threads for caps: Caps are easy to be locked even under bad concentricity./ Models with and without guide rods are able to share the same adaptors.

- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.

Standard Specs

Model: F201PC, F201PSU, F201H PSU

Adaptor Size: 1/2", 3/4"Applicable Fluid: Liquid

Flow direction: From the bottom up

- Engraved degree scales: Laser engraved degree scales
- Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)
- Working Pressure: 5.0kg/cm²
- Full Scale Accuracy: ±5% F.S.
- Product Material

Body - PC, PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316, Ti, Hastelloy C

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range * 1* ² (L/min)
F201-10LPM	1.0-10 / S, H
F201-15LPM	1.5-15 / S, H
F201-20LPM	2.0-20 / S, H
F201-30LPM	3.0-30 / S, H
F201-40LPM	4.0-40 / S, H
F201-50LPM	5.0-50 / S, H

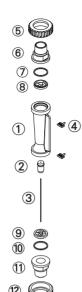
* 1.Liquid flow meters are calibrated for 20°C water.

Maximum working temperature for different adaptor materials

Adapter Types	Maximum working temperature materials				
Adaptor Types	~ 50℃	~ 60℃	~ 100°C		
Welding Type	UPVC	-	-		
Male / Female Thread	UPVC	PP	-		
Butt-fusion Adaptor	-	PP	-		

 $\mbox{\%}$ When maximum working temperature is over 50°C, the material for guide rod bottom and union nuts have to be PSU and aluminium.

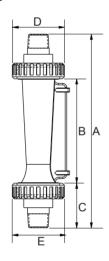
^{% 2.&}quot; / "float material, S- Stainless 316, H- Hastelloy C.



			1-1	:		
No.	Series	Material (Main material)*				
110.	301133	1	2	3	4	
1	Body	PC	PSU	PSU	PSU	
2	Float	S316	S316	Hastelloy C	PVC	
3	Guide Rod	S316	S316	Ti	Hastelloy C	
4	Pointer	PP	PP	PP	PP	
5,12	Union Nuts	UPVC	UPVC	UPVC	UPVC	
6,11	Adaptor	UPVC	UPVC	UPVC	UPVC	
7,10	O-ring	EPDM	VITON	VITON	VITON	
8,9	Guide Rod Bottom	PP	PP	PP	PP	

^{*} Material for different parts is optional for each flowmeter.

Parts Size



Adaptor Material	А	В	С	D	Е
3/4"Male Thread	192	102	45	51	56
3/4" JIS	194	102	46	51	56
1/2"Male Thread	182	102	40	51	56
1/2"Female Thread	192	102	45	51	56
1/2" JIS	184	102	41	51	56

Unit: mm

Specification inquiry (F201)

$\ensuremath{\,\%\,}$ Contact us with below information.

● Fluid - □Water □Other
■ Specific gravity - □Standard-1.0 □Other
■ Pressure - Standard-5.0kg/cm² Other kg/cm²
■ Temperature - □Normal temperature □Other°C
■ Scale RangeL/min ~L/min
■ Adaptor Size - □3/4" JIS □Other
■ Adaptor Material - □Welding Type □Male Thread□ Female Thread □ Butt-fusion Adaptor□ Other

- Material
 - $\ \square$ 1 Body PC $\ \square$ 2 Body PSU
 - ☐ 3 Body PSU Hastelloy C FloaT, Ti Guide Rod
 - ☐ 4 Body PSU Hastelloy C Float & Guide Rod
- Other

Specs besides above listed information

F301- New 270mm large size pipe size 3/4"-1"

F301 series





Product Features · Use -

4 design innovations to improve usability:

New body design: Decreases the vibration when working which stabilises flow distribution./ New indicator design: Easily adjustable and positionable./ Thickened threads for caps: Caps are easy to be locked even under bad concentricity./ Models with and without guide rods are able to share the same adaptors.

- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.

Standard Specs

Model: F301PSU, F301H PSU

Adaptor Size: 1/2", 3/4", 1"

Applicable Fluid: Liquid

Flow direction: From the bottom up

- Engraved degree scales: Laser engraved degree scales
- Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)
- Working Pressure: 5.0 kg/cm²
- Full Scale Accuracy: ±5% F.S.
- Product Material

Body - PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316, Hastelloy C

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

* BSPT is standard thread type. NPT is available for custom order.

Scale Range

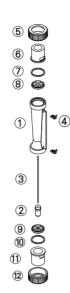
Product Code	Scale Range *1*2 (L/min)
F301 - 20LPM	2.0-20 / S, H
F301 - 30LPM	3.0-30 / S, H
F301 - 50LPM	5.0-50 / S, H
F301 - 80LPM	8.0-80 / S, H
F301 - 100LPM	10-100 / S, H

- * 1.Liquid flow meters are calibrated for 20°C water.
- * 2." / "float material, S- Stainless 316, H- Hastelloy C.

Maximum working temperature for different adaptor materials

Adapter Types	Maximum working temperature materials			
Adaptor Types	~ 50℃	~ 60°C	~ 100℃	
Welding Type	UPVC	-	-	
Male / Female Thread	UPVC	PP	-	
Butt-fusion Adaptor	-	PP	-	

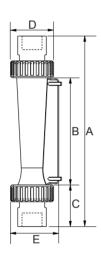
- \divideontimes When maximum working temperature is over 50°C, the material for guide rod bottom and union nuts have to be PSU and aluminium.
- $\,\%\,$ If the maximum working temperature requirement of the adapter is over 60°C, please contact LORRIC directly.



NI-	Osviss	Material (Main material)*			
No.	Series	1	2	3	4
1	Body	PSU	PSU	PSU	PSU
2	Float	S316	S316	Hastelloy C	PVC
3	Guide Rod	S316	S316	Ti	Hastelloy C
4	Pointer	PP	PP	PP	PP
5,12	Union Nuts	UPVC	UPVC	UPVC	UPVC
6,11	Adaptor	UPVC	UPVC	UPVC	UPVC
7,10	O-ring	EPDM	VITON	VITON	VITON
8,9	Guide Rod Bottom	PP	PP	PP	PP

 $[\]fine Material$ for different parts is optional for each flowmeter.

Parts Size



Adaptor Material	А	В	С	D	Е
1"Male Thread	270	153	58.5	61	69
1"Female Thread	270	153	58.5	61	69
1" JIS	255	153	51	61	69
PP OD33 ID25.2	254	153	50.5	61	69
3/4"Male Thread	256	153	51.5	61	69
3/4" JIS	260	153	53.5	61	69

Unit: mm

Specification inquiry (F301)

* Contact us with below information.

● Fluid - □Water □Other			Material
			☐ 1 Body PC☐ 2 Body PSU☐ 3 Body PSU Hastelloy C FloaT, Ti Guide Rod☐ 4 Body PSU Hastelloy C Float & Guide Rod
mperature - Norr	nal temperature □Ot	ther°C	Adaptor PSU (for high working temperature
cale Range	L/min ~	L/min	☐ 5 Other
daptor Size - □1" J	IS Other		Specs besides above listed information
daptor Material - 🔲	Welding Type ☐Ma	le Thread	
Female Thread	Butt-fusion Adaptor		
Other			
	pecific gravity - S ressure - Standar emperature - Norr cale Range - daptor Size - 1" Jl daptor Material - 1 Female Thread	pecific gravity - Standard-1.0 Other ressure - Standard-5.0kg/cm² Other remperature - Normal temperature Officale Range - L/min ~ daptor Size - 1" JIS Other daptor Material - Welding Type Ma	pecific gravity - Standard-1.0 Other

F311- New 195mm middle size pipe size 1/2"-1" F311 series





Product Features · Use -

4 design innovations to improve usability:

New body design: Decreases the vibration when working which stabilises flow distribution./ New indicator design: Easily adjustable and positionable./ Thickened threads for caps: Caps are easy to be locked even under bad concentricity./ Models with and without guide rods are able to share the same adaptors.

- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.

Standard Specs

Model: F311 PSU

Adaptor Size: 1/2", 3/4", 1"

Applicable Fluid: Liquid

Flow direction: From the bottom up

- Engraved degree scales: Laser engraved degree scales
- Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)
- Working Pressure: 5.0 kg/cm²
- Full Scale Accuracy: ±5% F.S.
- Product Material

Body - PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

* BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range*1*2 (L/min)
F311 - 80LPM	23-80 / S, H
F311 - 100LPM	20-100 / S, H

¾ 1.Liquid flow meters are calibrated for 20°C water.

* 2." / "float material, S- Stainless 316, H- Hastelloy C.

Maximum working temperature for different adaptor materials

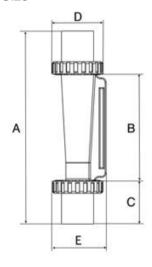
Adapter Types	Maximum working temperature materials			
Adaptor Types	~ 50°C	~ 60℃		
Welding Type	UPVC	-		
Male / Female Thread	UPVC	PP		
Butt-fusion Adaptor	PP	PP		



No	No.		Material (Main material)* 1				₹1
No.	Series	1	2	3	4		
1	Body	PSU	PSU	PSU	PSU		
2	Float	S316	S316	S316	S316		
3	Guide Rod	S316	S316	S316	S316		
4	Pointer	PP	PP	PP	PP		
5,12	Union Nuts	UPVC	UPVC	UPVC	UPVC		
6,11	Adaptor	UPVC	UPVC	PP ^{*2}	PP ^{*2}		
7,10	O-ring	EPDM	VITON	VITON	VITON		
8,9	Guide Rod Bottom	PP	PP	PP	PP		

- * 1.Material for different parts is optional for each flowmeter.
- $\fine 2$. For thread and welding adaptor only.

Parts Size



Adaptor Material	А	В	С	D	Е
1"Male Thread	211	93	59	61	67
1"Female Thread	210	93	58.5	61	67
1" JIS	196	93	51.5	61	67
3/4"Male Thread	197	93	52	61	67
3/4"Female Thread	212	93	59.5	61	67
3/4" JIS	200	93	53.5	61	67
1/2" JIS	190	93	48.5	61	67
PP OD33 ID25.3	194	93	50.5	61	67

Unit: mm

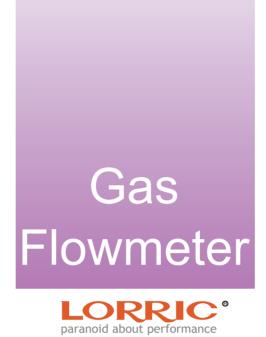
Specification inquiry (F311)

% Contact us with below information.

Fluid - □Water □Other
Specific gravity - □Standard-1.0 □Other
Pressure - □Standard-5.0kg/cm² □Other __kg/cm²
Temperature - □Normal temperature □Other __°C
Scale Range - ___ L/min ~ ___ L/min
Adaptor Size - □1" JIS

Other____

- Adaptor Material
 - □Welding Type □Male Thread
 - \square Female Thread \square Butt-fusion Adaptor
 - Other____
- Inductor □Yes □No
- inductor = 100 = 100
- Other _____



F201A	 42

F301A.....

F201A- New 192mm middle size pipe size1/2"-3/4" F201A series





Product Features · Use -

4 design innovations to improve usability:

New body design: Decreases the vibration when working which stabilises flow distribution./ New indicator design: Easily adjustable and positionable./ Thickened threads for caps: Caps are easy to be locked even under bad concentricity./ Models with and without guide rods are able to share the same adaptors.

- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.

Standard Specs

Model: F201APC, F201APSU, F201AH PSU

Adaptor Size: 1/2", 3/4"Applicable Fluid: Gas

Flow direction: From the bottom up

- Engraved degree scales: Laser engraved degree scales
- Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)
- Working Pressure: 5.0kg/cm²
- Full Scale Accuracy: ±5% F.S.
- Product Material

Body - PC, PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316, Ti, Hastelloy C

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material -

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

BSPT is standard thread type. NPT is available for custom order.

Scale Range

Product Code	Scale Range * ¹ * ² (NLPM)
F201A-30NLPM	3.0-30 / P
F201A-50NLPM	5.0-50 / P
F201A-100NLPM	10-100 / P
F201A-350NLPM	35-350 / S, H
F201A-500NLPM	50-500 / S, H
F201A-1000NLPM	100-1000 / S, H

** 1.Gas flow meters are calibrate for normal condition. (0°C, 1 atm)
 ** 2." / "float material, S- Stainless 316, P- PVC, H- Hastelloy C.

Maximum working temperature for different adaptor materials

Adoptor Types	Maximum working temperature materials				
Adaptor Types	~ 50℃	~ 60℃	~ 100°C		
Welding Type	UPVC	-	-		
Male / Female Thread	UPVC	PP	-		
Butt-fusion Adaptor	-	PP	-		

% When maximum working temperature is over 50°C, the material for guide rod bottom and union nuts have to be PSU and aluminium.

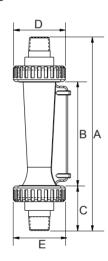
* If the maximum working temperature requirement of the adapter is over 60°C, please contact LORRIC directly.



No.	Series	Material (Main material)*				
INU.	Series	1	2	3	4	
1	Body	PC	PSU	PSU	PSU	
2	Float	S316	S316	Hastelloy C	PVC	
3	Guide Rod	S316	S316	Ti	Hastelloy C	
4	Pointer	PP	PP	PP	PP	
5,12	Union Nuts	UPVC	UPVC	UPVC	UPVC	
6,11	Adaptor	UPVC	UPVC	UPVC	UPVC	
7,10	O-ring	EPDM	VITON	VITON	VITON	
8,9	Guide Rod Bottom	PP	PP	PP	PP	

^{*} Material for different parts is optional for each flowmeter.

Parts Size



Adaptor Material	А	В	С	D	Е
3/4"Male Thread	192	102	45	51	56
3/4" JIS	194	102	46	51	56
1/2"Male Thread	182	102	40	51	56
1/2"Female Thread	192	102	45	51	56
1/2" JIS	184	102	41	51	56

Unit: mm

Specification inquiry (F201A)

Other_

* Contact us with below information.

■ Fluid - □Gas □Other
■ Specific gravity - □Standard-1.0 □Other
■ Pressure - □Standard-5.0kg/cm² □Otherkg/cm²
■ Temperature - ☐Normal temperature ☐Other°C
■ Scale RangeL/min ~L/min
■ Adaptor Size - □3/4" JIS □Other
■ Adaptor Material - □Welding Type □Male Thread
☐ Female Thread ☐ Butt-fusion Adaptor

Material		

- ☐ 1 Body PC ☐ 2 Body PSU
- ☐ 3 Body PSU Hastelloy C FloaT, Ti Guide Rod
- ☐ 4 Body PSU Hastelloy C Float & Guide Rod
- Other

Specs besides above listed information ——

F301A- New 270mm large size pipe size 3/4"-1" F301A series





Product Features · Use —

4 design innovations to improve usability:

New body design: Decreases the vibration when working which stabilises flow distribution./ New indicator design: Easily adjustable and positionable./ Thickened threads for caps: Caps are easy to be locked even under bad concentricity./ Models with and without guide rods are able to share the same adaptors.

- Patented dual-indicator design for easy and clear flow range management.
- Laser engraved degree scales provide better readability and longer life.
- Available in customizable units, temperature, and molecular weight.

Standard Specs

- Model: F301A PSU, F301AH PSU
- Adaptor Size: 1/2", 3/4", 1"
- Applicable Fluid: Gas
- Flow direction: From the bottom up
- Engraved degree scales: Laser engraved degree scales
- Fluid Temperature: 50°C (Standard: UPVC adaptor)
 60°C (PP adaptor)
- Working Pressure: 5.0 kg/cm²
- Full Scale Accuracy: ±5% F.S.
- Product Material -

Body - PSU

Float - Stainless 316, Hastelloy C

Guide Rod - Stainless 316, Hastelloy C

Guide Rod Bottom - PP

Adaptor - Welding Type: UPVC

Male, Female Thread: UPVC, PP

Butt-fusion Adaptor: PP

Union Nuts - UPVC O-ring - EPDM, VITON

Adaptor Material

Welding Type, Male Thread, Female Thread, Butt-fusion Adaptor

* BSPT is standard thread type. NPT is available for custom order.

Scale Range

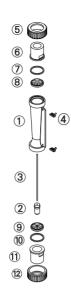
Product Code	Scale Range ^{※1 ※2} (NLPM)
F301A - 400NLPM	40-400 / P
F301A - 500NLPM	50-500 / P
F301A - 700NLPM	70-700 / P
F301A - 1000NLPM	100-1000 / S, H

** 1.Gas flow meters are calibrate for normal condition. (0°C, 1 atm)
 ** 2." / "float material, S- Stainless 316, P- PVC, H- Hastelloy C.

Maximum working temperature for different adaptor materials

Adoptor Types	Maximum working temperature materials				
Adaptor Types	~ 50°C	~ 60°C	~ 100℃		
Welding Type	UPVC	-	-		
Male / Female Thread	UPVC	PP	-		
Butt-fusion Adaptor	-	PP	-		

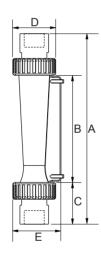
- When maximum working temperature is over 50°C, the material for guide rod bottom and union nuts have to be PSU and aluminium.



		1				
No.	Series	Material (Main material)*				
INO.	o. Selies	1	2	3	4	
1	Body	PSU	PSU	PSU	PSU	
2	Float	S316	S316	Hastelloy C	PVC	
3	Guide Rod	S316	S316	Ti	Hastelloy C	
4	Pointer	PP	PP	PP	PP	
5,12	2 Union Nuts	UPVC	UPVC	UPVC	UPVC	
6,11	Adaptor	UPVC	UPVC	UPVC	UPVC	
7,10	O-ring	EPDM	VITON	VITON	VITON	
8,9	Guide Rod Bottom	PP	PP	PP	PP	

 $[\]ensuremath{\,\times\,}$ Material for different parts is optional for each flowmeter.

Parts Size



Adaptor Material	А	В	С	D	Е
1"Male Thread	270	153	58.5	61	69
1"Female Thread	270	153	58.5	61	69
1" JIS	255	153	51	61	69
PP OD33 ID25.2	254	153	50.5	61	69
3/4"Male Thread	256	153	51.5	61	69
3/4" JIS	260	153	53.5	61	69

Unit: mm

Contact us with below information

