



617 SERIES Metallic Meter Tube / Variable Area Type FLOW INDICATING TRANSMITTER

FEATURES

- SUITABLE FOR LIQUIDS · STEAM OR GASES
- RIGID AND DURABLE BODY
- HIGH SAFETY AND RELIABILITY
- EASILY READABLE LARGE INDICATING SCALE
- OPTIONAL AIR DAMPER CAN BE ADDED
- VARIOUS CONNECTIONS & FLOW DIRECTIONS OF YOUR CHOICES
- ELECTRIC OR MECHANICAL INDICATOR CAN BE SPECIFIED



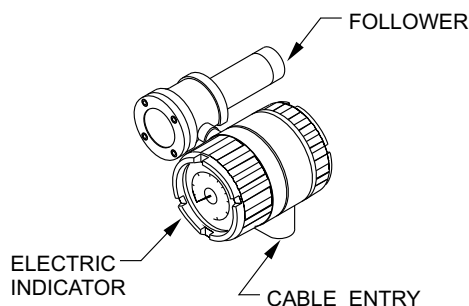
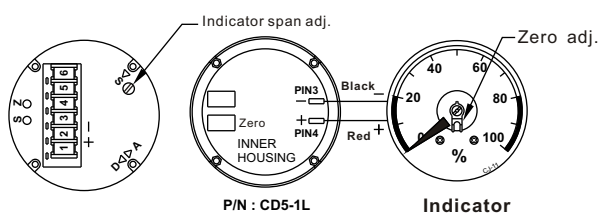
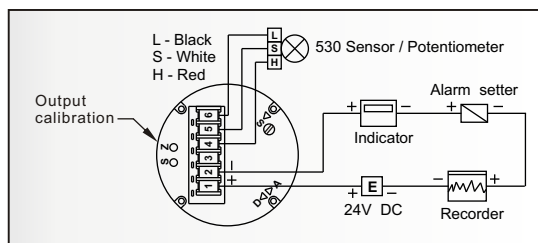
GENERAL SPECIFICATIONS

TRANSMITTER

Output signal : 4 ~ 20mA DC , 2-wire system
 Optional indicator : 0 ~ 100% or specified
 Power supply : 10 ~ 30V DC
 Resistance load : 700Ω at 24V DC
 0Ω at 10V DC

Zero adjustment : 0 ~ 25% adjustable by VR
 Span adjustment : 30 ~ 100% adjustable by VR
 Accuracy of converter : ± 0.1% F.S. at 20°C
 Linearity of converter : ± 0.1% F.S.
 Temp. Coefficient : ± 0.02% / °C

Electric protection : EEx ia II C T6
 Enclosure : Moulding enclosed
 Housing rating : EExd B T4, IP68
 Cable entry : 1/2" NPT(F) or special specified
 Housing material : Low copper aluminum alloy or specified
 Standard finish : Polyester epoxy painted
 Ambient temp. : 0 ~ 70°C / 90% RH max.
 Terminal blocks : 6 Poles , 6.3mm^w barrier with M3 screws



MECHANICAL INDICATOR (OPTIONAL)

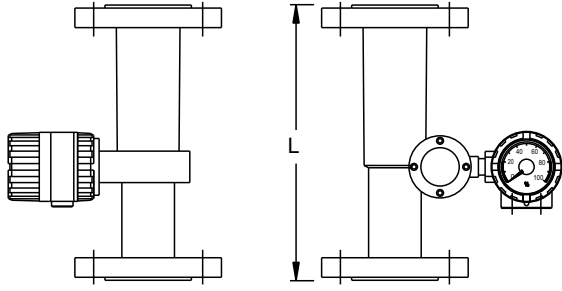
Scale length : 120 mm (arch)
 Flowrate unit : M³/H or specified
 Metering range : 1 : 10
 Accuracy : ±1.5% F.S.
 Material : Follower / 304SS
 Housing / 304SS Frame & ABS cover
 Sight window / Safety glass
 Housing gasket / Buna-N
 Damper : Discal / gas damper
 Enclosure : IP65
 Ambient temperature : -20 to +60°C

METER TUBE

Pressure rating : 10 kg/cm²G (Standard)
 100 kg/cm²G (Options)
 Operating temp. : -20 to +120°C (Standard)
 400°C (Options)
 Material : 304SS , 316SS , 316LSS or PTFE lining

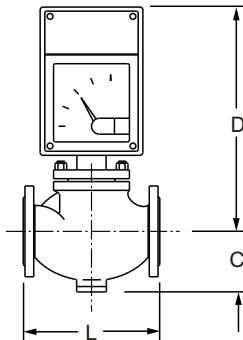
DIMENSIONS

617A-0/1



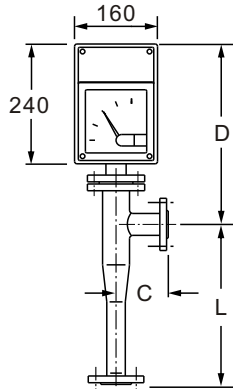
Options : Extended Follower (code item 6)

617B-2



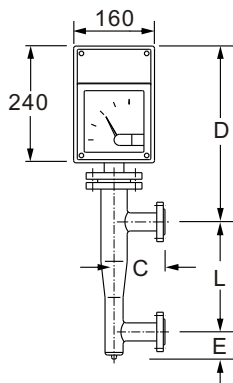
Options :
Extended follower
Cooling Fin (code item 6)

617C-2



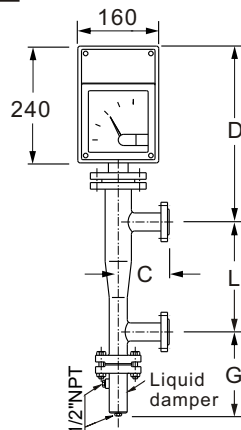
Options :
Extended Follower
Cooling Fin (code item 6)

617D-2



Options : Extended follower
Cooling Fin
(code item 6)

617E-2



Options : Extended follower
Cooling Fin
(code item 6)

617A

METER SIZE		WATER MAX.		Air @1 atm 0°C		⑤ INSTALLATION
mm	inch	M ³ /H	ΔP mmH ₂ O	NM ³ /H	ΔP mmH ₂ O	L mm
15	1/2	2.0	650	30	1000	350
20	3/4	2.5	650	50	1000	350
25	1	4.0	700	100	1000	350
40	1-1/2	8.0	900	200	1000	350
50	2	15.0	600	400	1000	375
65	2-1/2	25.0	700	500	1000	375
80	3	40.0	900	800	1500	375
100	4	60.0	1100	1200	2000	375

617B

METER SIZE		WATER MAX.		Air @1 atm 0°C		⑤ INSTALLATION		
mm	inch	M ³ /H	ΔP mmH ₂ O	NM ³ /H	ΔP mmH ₂ O	L mm	C mm	D mm
15	1/2	1.5	800	18	1000	148	55	380
20	3/4	2.0	800	50	1000	148	55	380
25	1	4.0	900	100	1100	158	62	390
40	1-1/2	7.0	900	200	1200	198	75	400
50	2	15.0	1000	400	1400	228	85	420
65	2-1/2	25.0	1000	500	1500	288	118	430
80	3	35.0	1200	800	1700	320	135	450
100	4	60.0	1400	1200	2000	360	155	470

617C

METER SIZE		WATER MAX.		Air @1 atm 0°C		⑤ INSTALLATION		
mm	inch	M ³ /H	ΔP mmH ₂ O	NM ³ /H	ΔP mmH ₂ O	L mm	C mm	D mm
15	1/2	2.0	600	30	400	250	100	350
20	3/4	2.5	600	50	400	250	100	350
25	1	4.0	700	80	400	250	100	380
40	1-1/2	8.0	700	130	400	250	130	400
50	2	15.0	800	300	400	250	130	400
65	2-1/2	25.0	800	600	500	350	150	400
80	3	40.0	1000	1000	500	350	180	420
100	4	70.0	1200	1800	600	350	180	420

617D / E

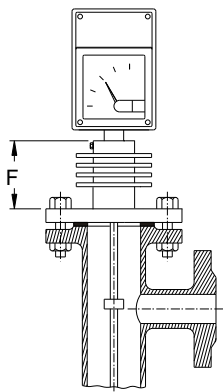
METER SIZE		STEAM @9Kg/cm ² G	Air @1 atm 0°C		⑤ INSTALLATION					
mm	inch	M ³ /H	ΔP mmH ₂ O	NM ³ /H	ΔP mmH ₂ O	L mm	C mm	D mm	E mm	G mm
15	1/2	30	800	30	600	250	100	350	45	190
20	3/4	40	900	50	600	250	100	350	45	190
25	1	60	1200	80	600	250	100	380	45	200
40	1-1/2	130	1300	130	600	250	130	400	55	210
50	2	250	1500	300	600	250	130	400	65	250
65	2-1/2	400	1700	600	700	350	150	400	75	250
80	3	600	1800	1000	700	350	180	420	90	260
100	4	1100	1800	1800	900	350	180	420	100	270

MODEL SELECTION

ITEMS	CODE	SPECIFICATIONS		
① MODEL	617A	Bottom to top flow direction		
	617B	Horizontal flow direction		
	617C	Bottom to top side flow direction		
	617D	Sideways flow direction		
	617E	Sideways flow direction with liquid damper		
	617F	OEM Versions		
② FUNCTIONS	-0	Electric indicating transmitter, scale 0~100%		
	-1	Electric indicating transmitter, ordering scale		
	-2	Mechanical indicator with transmitter		
	-3	To be specified		
③ CONNECTION	0	ANSI 150 ^{lb} Flange	1	JIS 10K Flange
	2	DIN 2632 / 2633 Flange (PN10/16)	3	To be specified
④ MATERIAL OF WETTED PARTS	0	304SS (1.4301)		
	1	316SS (1.4571)		
	2	316LSS		
	3	PTFE Lining		
	4	To be specified		
⑤ INSTALLATION LENGTH	-A	Standard design		
	-B	To be specified		
⑥ OPTIONAL COOLING PARTS	A	Not required (-20 to +120°C)		
	B	Extended follower (≤300°C)		
	C	Cooling fin (≤400°C)		
	D	To be specified		
⑦ OPTIONAL JACKET PARTS	A	Not required	B	Semi-Jacket
	C	Full Jacket	D	To be specified
⑧ METER SIZE	-015	15mm (1/2")		
	-100	100mm (4")		
	-xxx	To be specified		

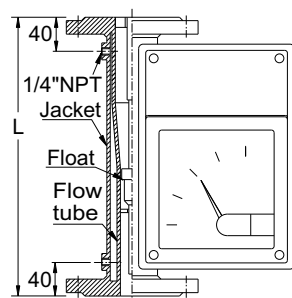
OPTIONAL

COOLING FIN

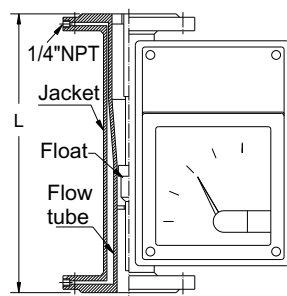


METER SIZE	F (mm)	
	≤250°C	≤400°C
15~25	50	70
40~65	80	100
80	90	110
100	100	120

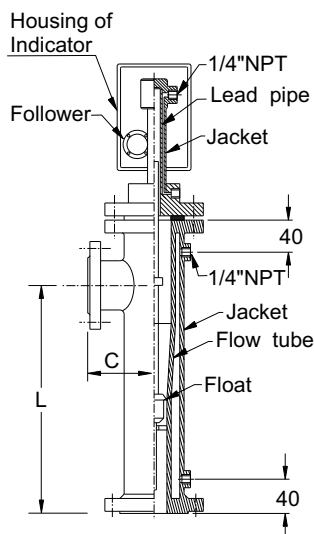
SEMI-JACKET



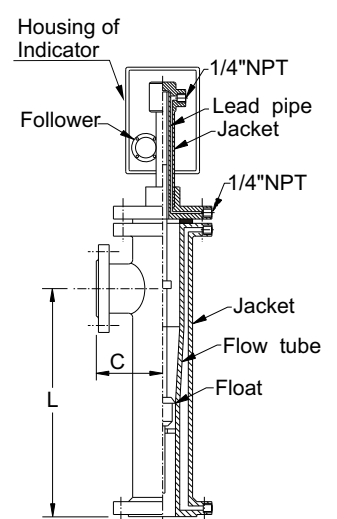
FULL JACKET



SEMI-JACKET (Back view)

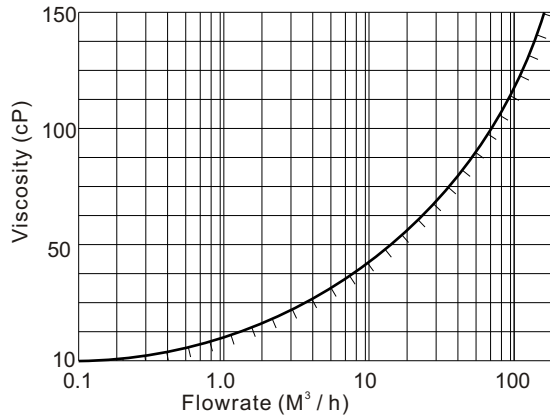


FULL JACKET (Back view)

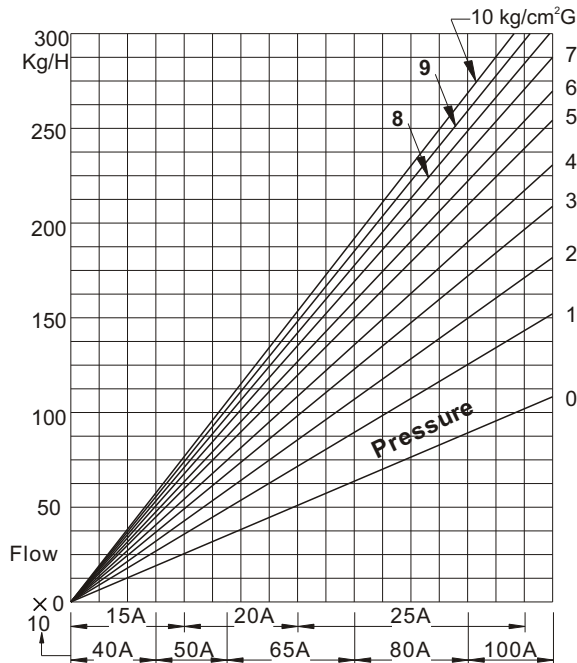


INSTRUCTIONS

SUITABLE RANGE FOR THE LIQUID VISCOSITY



PIPE SIZE OF STEAM FLOWS



GAS FLOW CALCULATION

When the gas flowmeter is different from the ordered specifications, errors in measurement may occur. In this case, further calculation is necessary. The formula is as follows:

$$Q_a = Q_g \times \sqrt{\frac{\gamma}{1.293}} \times \sqrt{\frac{1.033}{(1.033+P)}} \times \sqrt{\frac{(273+t)}{273}}$$

Q_a : Air flowrate for converted result (M^3/H)

Q_g : Flowrate of the gas to be metered (M^3/H)

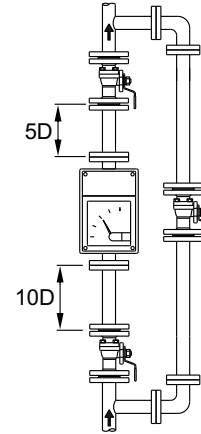
γ : Density of the gas to be metered (kg/NM^3)

P : Operating pressure (kg/cm^2G)

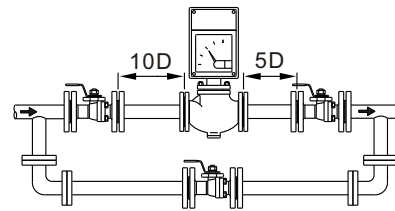
t : Operating temperature ($^{\circ}C$)

PIPELINE PLANNING

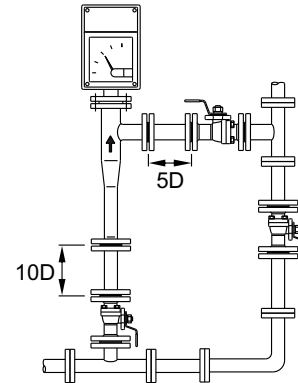
617A



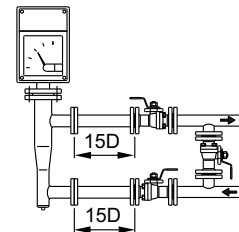
617B



617C



617D



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