FLOW SENSOR 601

HALL-EFFECT / INSERTED ROTOR TYPE

FEATURES

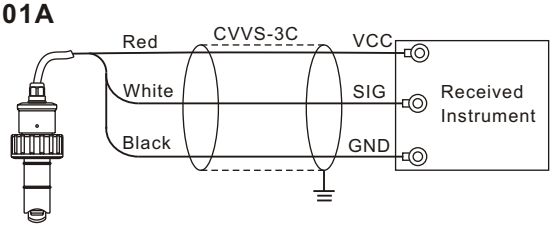
- FREE FLOW DIRECTION
- ANTICORROSIVE MATERIALS
- EASY INSTALLATION & MAINTENANCE
- LINEAR OUTPUT & NO PRESSURE DROP
- SAFE , RIGID CONSTRUCTION
- HIGH ACCURACY & RELIABILITY

GENERAL SPECIFICATIONS

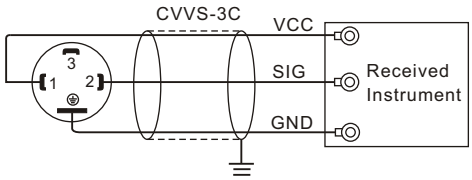
Output Frequency	20Hz / M / Sec
Output Signal	Open collector , Sinking
Measuring Range	0.3 to 6m/Sec~0.1 to 6m/Sec
Exciting Power	3.5 to 24V DC
Supply Current	1 ~ 6mA (3.5~24V)
Output Current	25mA max.
Repeatability	±0.5% FS (0.3 to 6m/Sec)
Linearity	±0.5% (0.3 to 6m/Sec)
Fluid Temperature	105°C max.
Ambient Temperature	0~60°C , 90%RH max.
Enclosure	IP67 Encapsulation
Electric Protection	Ex ia ⅡC T6
Standard Materials	Sensor Body / PVDF
	Rotor / PVDF
	Shaft / Ceramic
	Bearing / Ceramic
	O-Ring / EPDM

WIRING CONNECTIONS

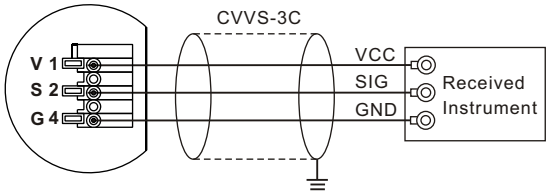
■ **601A**



■ **601B**



■ **601C / D / E / F**

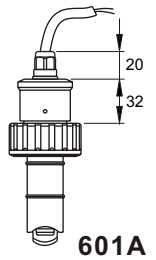
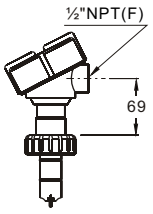
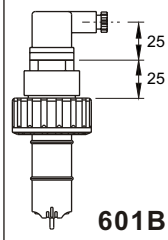
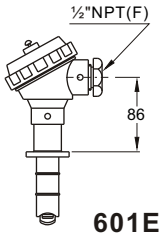
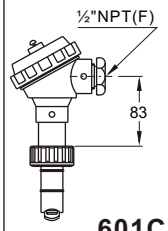
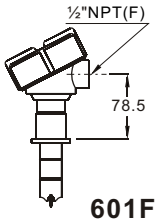


P/N:CG1-1-1809 of 601 series

MODEL SELECTIONS Table 1

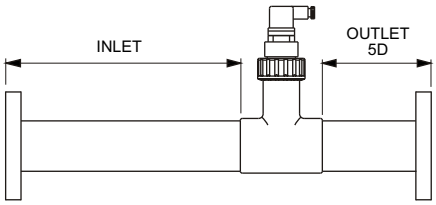
ITEMS	CODE	SPECIFICATIONS
① MODEL	601A ~ 601F	See Table 2
	601G	OEM Versions
② SUITABLE PIPELINE	– 0	Standard (15A~200A)
	– 1	To be specified
③ FLOW VELOCITY DESIGNED	0	0.3 to 6 m/Sec (St'd)
	1	0.1 to 6 m/Sec
	2	0.2 to 6 m/Sec
	3	To be specified
④ SENSOR COUPLING	0	Standard
	1	To be specified
⑤ MATERIAL OF SENSOR BODY	– A	Polypropylene
	– B	PVDF
	– C	316S S (1.4571)
	– D	To be specified
⑥ ROTOR MATERIAL	A	PVDF
	B	To be specified
⑦ MATERIAL OF SHAFT/BEARING	A	Ceramic
	B	To be specified
⑧ O-RING MATERIAL	A	EPDM (St'd)
	B	Viton
	C	To be specified

MODEL & DIFFERENTIATION — Table 2

MODEL	SPECIFICATIONS	MODEL	SPECIFICATIONS
 **601A**	Fitting Connection : Union Nut Coupling Operating Pressure : 1.0MPa max. Lead Cable : 24AWG , 8 metres or specified Conduit Connection : ●M12 with Cable Gland & Strain relief ●M20 or ½" NPT(F) for optional Materials : Sensor Head / POM Union Nut / Polypropylene or options Lead Cable / CVVS Enclosure : IP67	 **601D**	Fitting Connection : Union Nut Coupling Operating Pressure : 1.0MPa max. Cable Entry : ½" NPT(F) or specified Materials : Electric Housing / ADC-12 with anticorrosive painted Sensor Head / 304SS (1.4301) Union Nut / Polypropylene or options Enclosure : Exd ⅡB T4 , IP67
 **601B**	Fitting Connection : Union Nut Coupling Operating Pressure : 1.0MPa max. Cable Entry : Connector , DIN 43650 , A / ISO 4400 PG9 or ½" NPT(F) for optional Materials : Sensor Head / POM Union Nut / Polypropylene or options Lead Cable / CVVS Enclosure : IP67	 **601E**	Fitting Connection : 50mm Square Flange, M8 Screws Operating Pressure : 1.6MPa max. Cable Entry : ½" NPT(F) or specified Materials : Electric Housing / ADC-12 with anticorrosive painted Flange And Head / 304SS (1.4301) or speeified Enclosure : IP67
 **601C**	Fitting Connection : Union Nut Coupling Operating Pressure : 1.0MPa max. Cable Entry : ½" NPT(F) or specified Materials : Electric Housing / ADC-12 with anticorrosive painted Sensor Head / 304SS (1.4301) Union Nut / Polypropylene or options Enclosure : IP67	 **601F**	Fitting Connection : 50mm Square Flange, M8 Screws Operating Pressure : 1.6MPa max. Cable Entry : ½" NPT(F) or specified Materials : Electric Housing / ADC-12 with anticorrosive painted Flange And Head / 304SS (1.4301) or speeified Enclosure : Exd ⅡB T4 , IP67

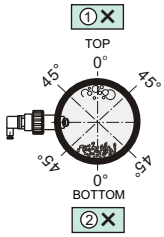
PIPING / INSTALLATION — Table 3

■ HOW TO LOCATE THE SENSOR



OBSTACLE OF INLET	INLET LENGTH OF STRAIGHT PIPE
FLANGE / SOCKET	10D
REDUCER	15D
BUTTERFLY / BALL VALVE	15D
ELBOW / TEE	20D
PUMP / GLOBE / GATE VALE	50D

■ THE COUNTERPLOT FOR HORIZONTAL PIPING

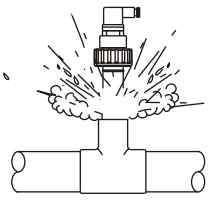


The sensor is unsuitable to install vertically (0°) When ❶bubbles occur at the top of horizontal piping , ❷ there are sediments at the bottom of the pipe, and must be installed to ±45°∠.

TROUBLESHOOTING

■ PULL OUT THE FLOW SENSOR

When the flow sensor is pulled out for cleaning or replacement the line pressure and service conditions must be carefully checked beforehand . In order to protect the operator and to ensure industrial safety , it is strongly recommended to stop the machines operation while doing cleaning and replacement .

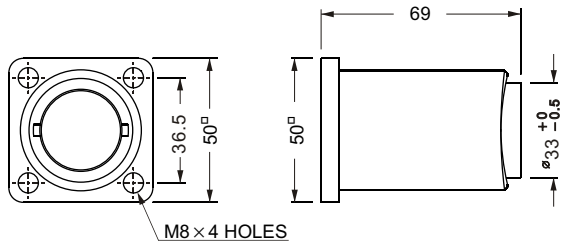


■ TO INSERT THE FLOW SENSOR

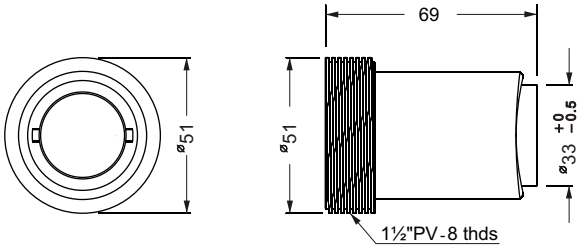
The flow sensor has a convexity which connects the concave side of fitting . The convexity has to be inserted or pulled out straight without swaying . Also the convexity must meet the fitting closely to join the sensor coupling tightly .

FITTING SELECTIONS

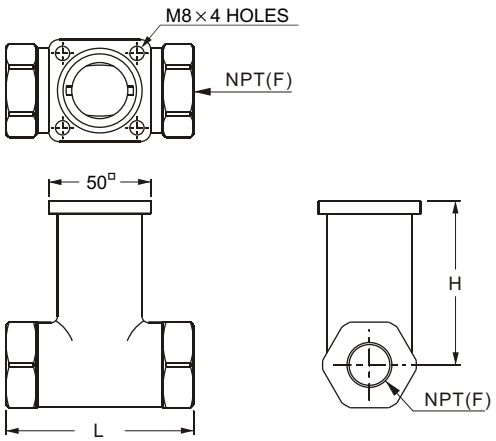
■ 090A



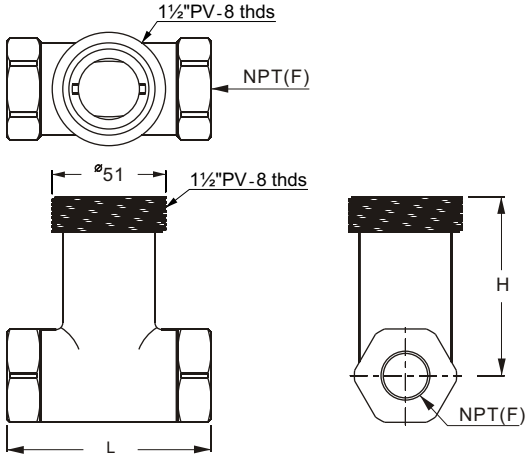
■ 090B



■ 090C



■ 090D



ITEMS	CODE	SPECIFICATIONS
① MODEL	090A	Weldolet fitting for flange coupling
	090B	Weldolet fitting for PV coupling
② PIPE SIZE	– 040 ~ – 300	040A (1-½") ~ 300A (12")
③ PIPE SCH.	– A	Sch 5
	– B	Sch 10
	– C	Sch 20
	– D	Sch 40
	– E	To be specified
④ MATERIAL	A	304SS
	B	304LSS
	C	316SS
	D	316LSS
	E	To be specified
⑤ EXTRA TREATMENT	A	Not required (St'd)
	B	High purity cleaning (HPC)
	C	Electro-polishing (EP)
	D	To be specified

■ TEE FITTING DIAMENSIONS (090C / D)

mm

CODE & SIZE / SYMBOL	015 (½")	020 (¾")	025 (1")	032 (1¼")	040 (1½")
H	74	78	80. 5	84	88
L	92	92	92	104	104

ITEMS	CODE	SPECIFICATIONS
① MODEL	090C	Tee Fitting for flange coupling
	090D	Tee Fitting for PV coupling
② PIPE SIZE	– 015	15A (½")
	– 020	20A (¾")
	– 025	25A (1")
	– 032	32A (1-¼")
	– 040	40A (1-½")
③ PROCESS CONNECTION	– A	PT (F)
	– B	NPT (F)
	– C	Soclet weld
	– D	To be specified
④ MATERIAL	A	304SS
	B	304LSS
	C	316SS
	D	316LSS
	E	To be specified
⑤ EXTRA TREATMENT	A	Not required (St'd)
	B	High purity cleaning (HPC)
	C	Electro-polishing (EP)
	D	To be specified