

MICROPROCESS LENGTH (FLOW) CONTROLLER METER



FEATURES

- Readout range from -9999 to 99999
- Accepts input rates 50 or 5000 CPS can be modified
- Four counting modes up, down, up/down, quadrature can be modified
- Input scaling multiplier 00.001 to 99.999 can be modified
- Decimal point can be modified
- Auto zero function
- Dual alarm, compare hysteresis alarm delay function
- 15 bit DAC analog voltage or current mode can be modified

1. MODEL: PF - CA - X → See output switching table (S2)

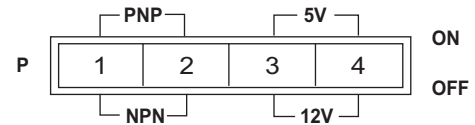
- 0 (non-alarm)
- 1 (one-alarm)
- 2 (two-alarm)

2. Specification

- Aux. power supply : AC110 & 220V ±20% (50 or 60Hz)
(Optional DC 12, 24, 48, 110, 220V
AC/DC 90~260V ±10%)
- Count input type : Switch selectable current sourcing or
current sinking
- Count input trigger levels : Switch selectable
Hi bias (V_{IH}=7.5V, V_{IL}=5.5V) or
Lo bias (V_{IH}=3.7V, V_{IL}=2.0V)
- Max. count rates : ≤10KHz (up, down, up/down mode)
≤5KHz (quadrature mode)
- Over input indication : "ovEr" and "-ovEr"
- Readout (compare) range : "9999" to "99999" adjustable
- Parameter setting : Touch switches
- Alarm action : "Hi" or "Lo" adjustable
- Compare hysteresis : 0~9999 digit adjustable
- Alarm delay time : 0~99.9 second adjustable
- Relay contact output : AC 250V~3A, DC 30V~5A
- Analog output resolution : 15 bit DAC
- Output drive capability : ≤10mA for voltage mode
≤10V for current mode
- Output ripple (p-p) : <0.1% F.S
- Response time : ≤1/f + 10ms (0~90%)
- Display : Red high efficiency LEDs 14.22mm
(0.56")
- Sensor power supply : 12VDC ±10% (≤50mA)
- Memory mode : Non-volatile EEPROM memory
- Dielectric strength : 2KVac/1 min. (power/input/output)
- Operating condition : 0~50°C (20~90% RH non-condensed)
- Storage condition : 0~70°C (20~90% RH non-condensed)

3. Function switches (S1, S2)

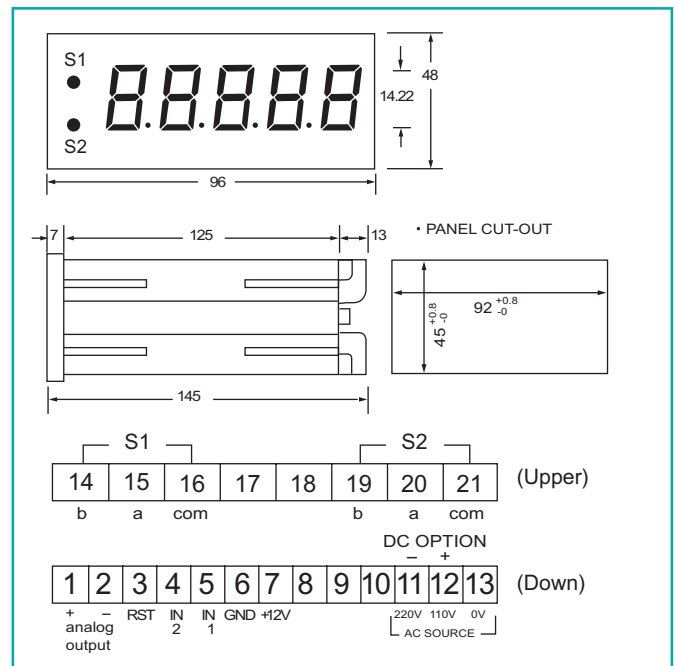
- S1 → P₁, P₂, input type selection
P₃, P₄, input trigger level selection



- S2 → P₁-P₂-P₃-P₄-P₅-P₆ output range selection
P₇-P₈ output mode: voltage/current selection

X	Output Range	O/P Range	O/P Mode
		1-2-3-4-5-6	7-8
0	non-output	switching status	ON=1 OFF=0
1	0~1V	1-0-1-1-1-0	1-1
2	0~5V	1-0-1-0-1-0	1-1
3	1~5V	1-1-1-0-1-1	1-1
4	0~10V	1-1-0-1-0-0	1-1
5	2~10V	1-1-1-1-0-1	1-1
6	0~1mA	0-1-1-1-1-0	0-0
7	0~10mA	1-0-1-0-1-0	0-0
8	0~20mA	1-1-0-1-0-0	0-0
9	4~20mA	1-1-1-1-0-1	0-0
S	SPECIFIED (NON-PROGRAMMABLE)		

4. Outside dimension and connection diagram



MICROPROCESS LENGTH (FLOW) CONTROLLER METER



FEATURES

- Readout range from -1999 to 99999
- Accepts input rates 45 or 50 or 5000 or 20000 CPS can be modified
- Four counting modes up, down, up/down, quadrature (x 1, x 2, x 4, mode) can be modified
- Sensor voltage +12V or +24V can be switched ($\leq 80\text{mA}$)
- Input scaling multiplier 00.001 to 99.999 can be modified
- Decimal point can be modified
- Auto zero function
- Four alarms with hysteresis and delay functions (optional)
- 16 bit DAC analog output can be modified (optional)
- Support RS485 or RS232 with Modbus RTU mode (optional)

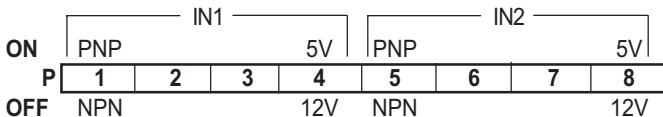
1. MODEL: PF - CAA - - - -

NO	Analog Output	NO	Alarm	NO	Communication	NO	Aux. Power
	See Output	0	None	0	None	1	AC 90~240V
Switching Table		1	1 Alarms	1	RS485	2	DC 24~70V
		2	2 Alarms	2	RS232	3	AC/DC 24V
		3	3 Alarms	9	SPECIFIED	4	DC 110V
		4	4 Alarms			9	SPECIFIED

2. Specification

- Aux. power supply : AC 90~240V $\pm 10\%$ 50/60Hz $\leq 15\text{VA}$
DC 24~70V $\pm 10\%$ $\leq 10\text{W}$
AC/DC 24V $\pm 10\%$ $\leq 10\text{VA}$
DC 110V $\pm 10\%$ $\leq 10\text{W}$
- Count input type : Switch selectable current sourcing or current sinking
- Count input trigger levels : Switch selectable Hi bias ($V_{IH}=7.5\text{V}$, $V_{IL}=5.5\text{V}$) or Lo bias ($V_{IH}=3.5\text{V}$, $V_{IL}=1.5\text{V}$)
- Sampling time : 10 cycle/sec. ($\geq 10\text{Hz}$)
f cycle/sec. ($< 10\text{Hz}$)
- Readout (compare) range : "-19999" to "99999" adjustable
- Max.count rated : $\leq 20\text{KHz}$ (up, down, up/down)
 $\leq 10\text{KHz}$ (quadrature mode)
- Parameter setting : Touch switches
- Over input indication : "ovEr" and "-ovEr"
- Alarm action : "Hi" or "Lo" adjustable
- Compare hysteresis : 0~9999 digit adjustable
- Alarm delay time : 0~99.9 or -0.1~-99.9 second adjustable
- Relay contact output : AC 250V~3A, DC 30V~5A
- Analog output resolution : 16 bit DAC
- Output drive capability : $\leq 20\text{mA}$ for voltage mode
 $\leq 14\text{V}$ for current mode
- Output ripple (p-p) : $< 0.1\%$ F.S
- Response time : $\leq 1/f + 10\text{ms}$ (0~90%)
- Communication speed : 2400, 4800, 9600, 19200 bps
- Communication format : $< 8, N, 1 >$, $< 8, N, 2 >$, $< 8, O, 1 >$, $< 8, E, 1 >$
- Communication address : "1" to "247" can be modified
- Display : Red high efficiency LEDs 14.22mm (0.56")
- Sensor power supply : 12VDC or 24VDC $\pm 10\%$ ($\leq 80\text{mA}$)
- Memory mode : Non-volatile EEPROM
- Dielectric strength : 2KVac/1 min. (power/input/output)
- Operating condition : 0~50°C (20~90% RH non-condensed)
- Storage condition : 0~70°C (20~90% RH non-condensed)

3. Function switches (S1)



P1, P5 : Input type selection (ON=PNP; OFF=NPN)

P2, P3, P6, P7 : Input signal filter selection

P2-P3 (ON=1 OFF=0)	Input Signal Filter Range
0-0	20KHz
1-0	5KHz
0-1	50Hz
1-1	45Hz

P4, P8 : Input trigger level selection (ON=5V; OFF=12V)

4. Analog output switching table

NO	Output Range	O/P Range 1-2-3-4-5-6	O/P Mode 7-8
0	Non-output	Switching status	ON=1 OFF=0
1	0~1V	1-0-1-1-1-0	1-1
2	0~5V	1-0-1-0-1-0	1-1
3	1~5V	1-1-1-0-1-1	1-1
4	0~10V	1-1-0-1-0-0	1-1
5	2~10V	1-1-1-1-0-1	1-1
6	0~1mA	0-1-1-1-1-0	0-0
7	0~10mA	1-0-1-0-1-0	0-0
8	0~20mA	1-1-0-1-0-0	0-0
9	4~20mA	1-1-1-1-0-1	0-0
S	SPECIFIED (NON-PROGRAMMABLE)		

5. Outside dimension and connection diagram (unit:mm)

