

5 DIGITAL MICRO-PROCESS FLOW TOTALIZER (24x48mm) with 1 ALARM

KFS-C

FEATURES

- High brightness 0.4" LED display: -19999~99999
- Flow unit selectable: Liter / Gal / C.C. / m³
- K factor programmable for pulse output per liter
- N / R / C relay output mode selectable
- 1 alarm setting (Hi or Lo) programmable
- Reset count by compound key (Shift + Up)
- High stability, non-flammable case (PC), high safety
- CE approval



ORDER INFORMATION: KFS-C- [Code 1] [Code 2] - [Code 3]

Code 1	Input Signal	Code 1	Input Signal
N5	NPN(5V)	VC	Pick-up 50mV~1.5V
N2	NPN(12V)	VD	Pick-up 500mV~15V
P5	PNP(5V)	VE	DC 24Vp
P2	PNP(12V)	CT	Contact
		0	Option

Code 2	Aux. Power
A	AC/DC 100~240V
D	AC/DC 22~60V

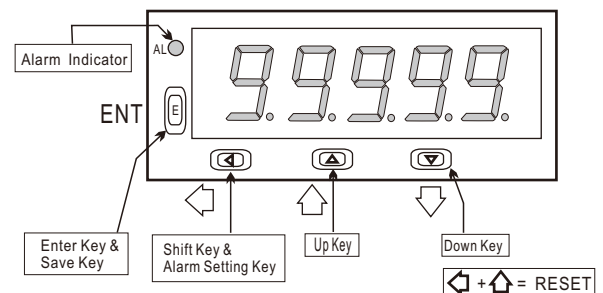
Code 3	Alarm Output
N	None
R1	1 Relay

**1: NPN(5V),PNP(5V) offers excitation power DC5V; NPN(12V),PNP(12V) offers excitation power DC12V for flow sensors using.
2: Please use PNP/NPN(5V/12V) or DC24Vp for DC pulse input.

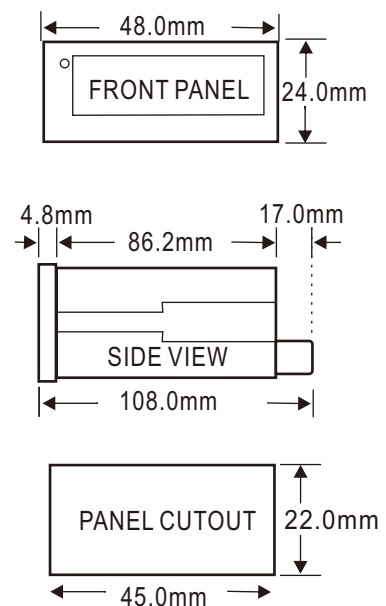
SPECIFICATION

- ◆ Display Screen: High brightness red LED; 10.16mm(0.4")
- ◆ Max. Input Frequency: 7KHz
- ◆ Display Range: 0~99999
- ◆ Parameters Setting: Push buttons
- ◆ Back Up Memory: EEPROM
- ◆ Alarm Action: "≥ (Hi) on" or "< (Lo) on"
- ◆ Relay Contact: AC 277V / 7A; DC 30V / 7A
- ◆ Relay Output Mode: N / R / C (depends on 1st alarm setpoint)
- ◆ Alarm Run Time: 1~99 sec
- ◆ Temperature Coefficient: 100ppm / °C (0~60°C)
- ◆ Operating Temperature: 0~60°C
- ◆ Operating Humidity: 20~90% RH (non-condensing)
- ◆ Storage Temperature: -10~70°C
- ◆ Storage Humidity: 20~90% RH (non-condensing)
- ◆ Power Supply: AC/DC 100~240V; AC/DC 22~60V
- ◆ Power Consumption: 8.5VA (all functions output)
- ◆ Surge Test: 1.5KVac / 1min (Input / Power)

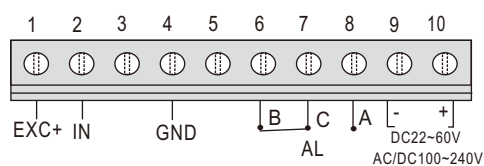
FRONT PANEL & KEY FUNCTIONS



DIMENSION

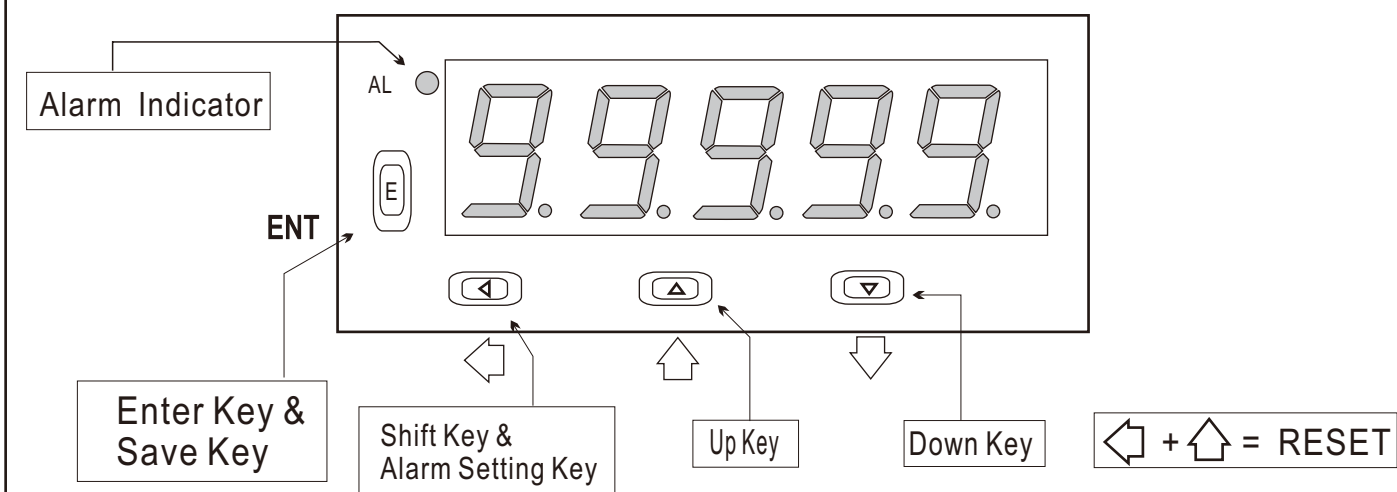


WIRING CONNECTION



* Please understand key indicators & functions at the first operation.

FRONT PANEL & KEY FUNCTIONS



Key Name	Symbol	Descriptions
Enter Key & Save Key	ENT	1. In the measuring status, press this key can enter to parameter pages. 2. In the parameter setting, press this key can save the value & go to next parameter.
Shift Key & Alarm Setting Key	←	1. In the measuring status, press this key for 3 sec can enter to alarm setting page. (The selecting digit will be flashed) 2. In the parameter setting, press this key can move the cursor left.
Up Key & Display Scaling Adjusting Key	↑	1. In the measuring status, press this key for 3 sec can enter to display scaling adjustment. 2. In the parameter setting, press this key can increase the digits.
Down Key	↓	1. In the parameter setting, press this key can decrease the digits.

- **1. The following block charts are parameters codes, parameter codes & parameters will alternate flashing if the parameters can be modified.
- To modify the parameters, please press ← ↑ ↓, and press ENT to save the parameters after the modification.
 - Please don't forget the new pass code after modification.
 - In any pages, press ↑ & ↓, or don't press any keys for 2 minutes that will back to measuring status.
 - In the measuring status, press ← & ↑ can reset the digits.

GENERAL MODE OPERATING PROCEDURES

Block Charts	Display	Descriptions	Default
Power On		Alarm Setpoint	
	Measuring Status	Present value for measurement.	
	Alarm Setpoint (AL)	Press ← ↑ ↓ to modify alarm setpoint.	00000

PROGRAMMING MODE OPERATING PROCEDURES

Block Charts	Display	Descriptions	Default	
	10000	Measuring Status	Present value for measurement.	
	PCod	Pass Code (P.Cod)	Press \leftarrow \rightarrow \downarrow to enter pass code.	00000
	P.Code Correct?		Pass code is correct that will enter to parameter groups. Pass code is wrong that will back to measuring status.	
	SYS	System Setting Page (SYS)	Press \leftarrow to select system setting group (SYS) or alarm setting group (roP).	
	dPK	K Factor Decimal Point Setting (dPK)	Press \leftarrow \rightarrow \downarrow to select K factor decimal point (0, 1, 2, 3, 4). EX: if the value shows "0.00" that means the decimal point is 2 digits.	00000
	KF	K Factor Setting (KF)	Press \rightarrow \downarrow to modify K factor (0 ~ 99999).	1000
	Unit	Flow Unit Setting (Unit)	Press \rightarrow \downarrow to modify the unit (Liter, Gal, C.C., m ³).	LitEr
	dP	Decimal Point Setting (dP)	Press \leftarrow \rightarrow \downarrow to select decimal point (0, 1, 2, 3, 4). EX: if the value shows "0.00" that means the decimal point is 2 digits.	Customers specify
	CodE	Pass Code Setting (CodE)	Press \leftarrow \rightarrow \downarrow to modify pass code (0~99999). PS: Please don't forget the new pass code after modification.	00000
	LoCK	Key Lock Setting (LoCK)	Press \rightarrow \downarrow to lock the keys, using key lock function only can view the parameters, but cannot modify any values.PS: no (unlock) , YES ("ENT" unlock , others lock).	no
	Alarm Setting Group Procedures			
	roP	Alarm Setting Page (roP)	The following steps are not available for alarm output.	
	ACt	Alarm Action Setting (ACt)	Press \rightarrow \downarrow to modify alarm value that is \geq (Hi) or $<$ (Lo) for alarm action.	Hi
	oP.modE	Alarm Mode Setting (oP.ModE)	Press \rightarrow \downarrow to modify alarm output mode (N, R, C). N: manual; R: return; C: continue	00000
oP.tiME	Alarm Run Time Setting (oP.tiME)	Press \leftarrow \rightarrow \downarrow to modify alarm run time (1~99).	00000	

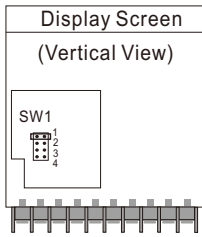
Error Code of Self-Diagnosis

Display	Descriptions	Remark
E-00	EEPROM reading/writing suffers the interference (about 1 million times)	**Please check the wiring connection is correct first, if the problem still exist, please return the meter to the factory.

**Relay Output Mode Descriptions:

- N: (Manual); the relay is on when the present value reaches the alarm setpoint, the present value is still counted and the relay don't deactivate until manual reset by "reset key" or "external control terminal". Then the present value is reset to zero.
- R: (Return); the relay is on when the present value reaches the alarm setpoint, the present value is counted until the relay output time is terminated. Then the present value is reset to zero.
- C: (Continue); the relay is on when the present value reaches the alarm setpoint, the present value is reset to zero. And the relay is still on until the relay output time is terminated.

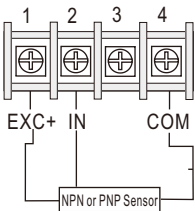
Input Signal Modification



**To Select the pin to modify the input signal for different sensors.
PS: In dual input type, excitation power must be the same.

SW1/SW2	JUMPER	DEFINITION
	1	Open: 12V; Close: 5V
	2	Open: 10KHz; Close: 400Hz
	3	Open: NPN; Close: PNP
	4	Open: PNP; Close: NPN

**Connection:



NPN (5V): 0~400 Hz

JUMPER	SW1/SW2
1	
2	
3	
4	

NPN (5V): 0~10 KHz

JUMPER	SW1/SW2
1	
2	
3	
4	

NPN (12V): 0~400 Hz

JUMPER	SW1/SW2
1	
2	
3	
4	

NPN (12V): 0~10 KHz

JUMPER	SW1/SW2
1	
2	
3	
4	

PNP (5V): 0~400 Hz

JUMPER	SW1/SW2
1	
2	
3	
4	

PNP (5V): 0~10 KHz

JUMPER	SW1/SW2
1	
2	
3	
4	

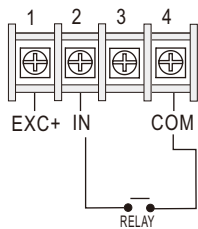
PNP (12V): 0~400 Hz

JUMPER	SW1/SW2
1	
2	
3	
4	

PNP (12V): 0~10 KHz

JUMPER	SW1/SW2
1	
2	
3	
4	

**Connection:



Relay Contact: NPN 0~400 Hz

JUMPER	SW1/SW2
1	
2	
3	
4	

**For relay input type, please select NPN 0~ 400 Hz.