



T210A

T210B

T210P

Senflow MultiController

- Measurement
- Algorithm
- Monitoring
- Controlling
- Communication



TAIK ELECTRIC
Metering Solutions

General Data

	T210A	T210B	T210P
Flow input	DC 4-20mA	Transistor NPN/PNP, open collector	Transistor NPN/PNP, open collector
Frequency		5 Hz – 10 KHz (Default value at 10 Hz) Configurable as square wave 0-30V pulse with 2.5V threshold	5 Hz – 10 KHz (Default value at 10 Hz) Configurable as square wave 0-30V pulse with 2.5V threshold
Accuracy	±0.05% F.S. ±2 digit	±0.05% reading, at frequency range > 10 Hz	±0.05% reading, at frequency range > 10 Hz
Temp. sensor type		RTD 3-wire, PT100, PT500, PT1000	
Measuring range		-200 ~ 600 °C	
Tolerance loss		Class A according to EN 60751	
LCD graphical display	3" large graphical backlit LCD	3" large graphical backlit LCD	3" large graphical backlit LCD
Flow rate	6 digit	6 digit	6 digit
Active power		6 digit	
Inlet temp.		4 digit	
Outlet temp.		4 digit	
Temp. difference		4 digit	
Energy accumulation		10 digit	
Flow accumulation	10 digit	10 digit	10 digit
Icons and symbols	Relay status, RS 485 transmission, output signal, flow signal, analog output status, engineering units, time, abnormal messages	Relay status, RS 485 transmission, output signal, flow signal, analog output status, engineering units, time, abnormal messages	Relay status, RS 485 transmission, output signal, flow signal, analog output status, engineering units, time, abnormal messages
Operating temperature	0 - 60 °C		
Storage temperature	-10 - 70 °C		
Max humidity	95%		
Auxiliary power supply	AC/DC 85 ~ 265V, 45 ~ 70 Hz		
Pluggable output modules (Option)	Relay/Pulse, RS 485, analog output		
Relay/Pulse	Max installation x 1 module Adjustable from 1~999999 pulses for energy and flow (open collector) Form A relay (N.O.), AC 240V 5A, DC 24V 5A. It can be configured for the parameters of flow rat at diverse units.		
RS 485	Max installation x 1 module Modbus RTU, baud rate set from 2400 ~ 19200, address ranges set from 1~199, data format set for N.8.1, O.8.1, E.8.1, N.8.2		
Analog output	Max installation x 2 modules. (Exclude T210P, only 1 module) It can be configured for the parameters of inlet temp, outlet temp, difference temp, flow rate, active power. Output resistance at ≤350Ω, accuracy ±0.1% R.O.		
Excitation outputs	Configuration for DC 5V, 12V, 24V via a pluggable jumper Excitation supply current at max 30mA		
Dielectric strength	AC 2KV 1 min. between input/output/power AC 3KV 1 min. between all terminals/case		
Power consumption	5-15VA, it varies accordingly with the needed output modules		
Sampling time	0.3 sec.		
IP enclosure	IP54 front, IP20 rear		
Certification	CE		
Electromagnetic compatibility (EMC)			
Conducted emission	EN 55011	Electrical fast transient/burst immunity	IEC 61000-4-4
Radiated emission	EN 55011	Surge immunity	IEC 61000-4-5
Harmonic current emissions	EN 61000-3-2	Immunity to conducted disturbances	IEC 61000-4-6
Voltage changes, voltage fluctuations, and flicker	EN 61000-3-3	Power frequency magnetic field immunity	IEC 61000-4-8
Electrostatic discharge	IEC 61000-4-2	Short interruptions and voltage	IEC 61000-4-11
Electromagnetic field immunity	IEC 61000-4-3		

T210B

BTU Application



Chiller



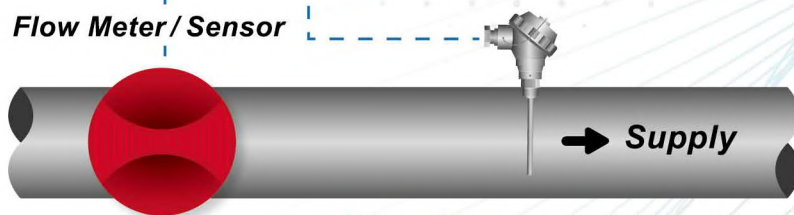
CRAC



Hydronic system



Geothermal and ground-source system



▲ Operation

Features

- 3" large graphical backlit LCD
- Energy saving mode
- Vertical bargraph indication in 100% corresponding to output at DC 4-20 mA
- Extended pluggable output modules (RS 485, DC 4-20 mA, Pulse/Relay)
- Usage for a variety of flow sensors
- Usage for diverse temperature sensors (PT100, PT500, PT1000)
- Automatic K-factor derivation algorithm
- Multiple units configurable for flow rate, energy, power, temperature
- 6 digit readings for flow rate and power consumption
- 4 digit readings for temperature
- 10 digit readings for energy
- Dual energy readings (1 x resettable energy, 1 x non-resettable energy)
- Offset correction for 2 x temperatures and analog outputs
- Auto self-diagnostics
- Abnormal messages

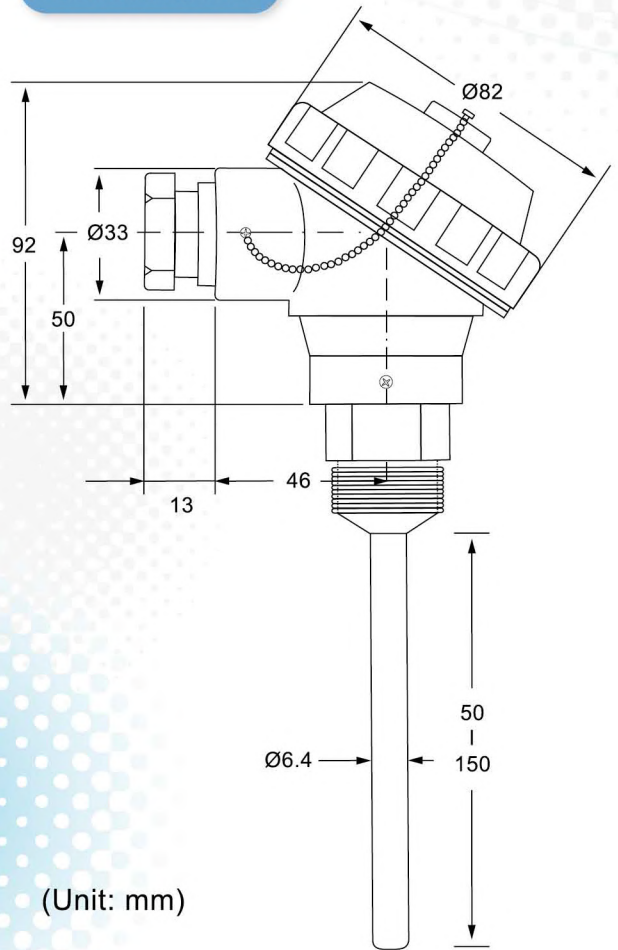
• RTD SenProbe



Features

- Class A accuracy
- 1/2" PT male thread
- Platinum 3-wire element
- Stainless steel cover chain
- Gripping ribs on cover edge
- 2", 3.95", 5.91" probe length
- PT100, PT500, PT1000 available
- 1/4" diameter, 316 SS sealed shield
- IP 66 die-cast aluminum cover head

Dimension



(Unit: mm)

Product Code

T210B

T210B -

Input signal - flow

NPN	N			
PNP	P			
Open collector	O			

Temp. probe type

PT100	1			
PT500	5			
PT1000	10			

Excitation supply

DC 5V	5			
DC 12V	12			
DC 24V	24			
None	NO			

Auxiliary power supply

AC/DC 85-265V	A			
DC 20-60V	B			

RTD SenProbe

SPT -

SenProbe

PT100	1			
PT500	5			
PT1000	10			

Length

50 mm*	5			
100 mm*	10			
150 mm*	15			

Hexagon male thread

1/2" PT		P		
1/2" NPT		N		
Option		O		

Threaded thermowell

No			N	
Yes			Y	

mm*

50 mm for the pipe diameter from 1/2" - 4"
 100 mm for the pipe diameter from 5" - 12"
 150 mm for the pipe diameter > 12"

T210A

FLOW Application

Features

- 3" large graphical backlit LCD
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- Vertical bargraph indication in 100% corresponding to output at DC 4-20 mA
- Extended pluggable output modules (RS 485, DC 4-20mA, Pulse/Relay)
- Usage for a variety of flow transmitters
- Converting square root extraction
- Multiple units configurable for flow rate and total
- Dual flow total readings (resetable and non-resetable)
- 6 digit readings for flow rate
- 10 digit readings for flow total
- Analog signal simulation DC 4-20mA
- Offset correction for analog output
- Auto self-diagnostics
- Abnormal messages

Product Code

T210A		
T210A -	<input type="checkbox"/>	<input type="checkbox"/>
Input signal		
4-20mA / 2 wire	A2	
4-20mA / 3 wire	A3	
Excitation supply		
DC 5V	5	
DC 12V	12	
DC 24V	24	
None	NO	
Auxiliary power supply		
AC/DC 85-265V	A	
DC 20-60V	B	



- HVAC air flow
- Reverse osmosis
- Open channel flow
- Chemical production
- Water supply network
- Chiller cooling process
- Water irrigation system
- UF / RO process equipments
- Exhaust / Ventilation air flow
- Dairy / Beverage CIP process
- A variety of flow transmitters



T210P












FLOW Application



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-  HVAC air flow
-  Reverse osmosis
-  Hydronic system
-  Chemical production
-  Water supply network
-  Chiller cooling process
-  Water irrigation system
-  UF / RO process equipments
-  Exhaust / Ventilation air flow
-  Dairy / Beverage CIP process
-  Geothermal and ground-source system

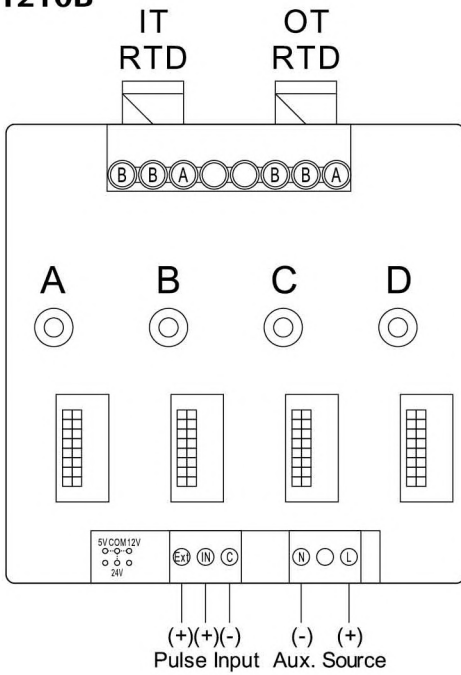
Product Code

T210P		
T210P -	□	□
Input signal - flow	NPN	N
	PNP	P
	Open collector	O
Excitation supply	DC 5V	5
	DC 12V	12
	DC 24V	24
	None	NO
Auxiliary power supply	AC/DC 85-265V	A
	DC 20-60V	B

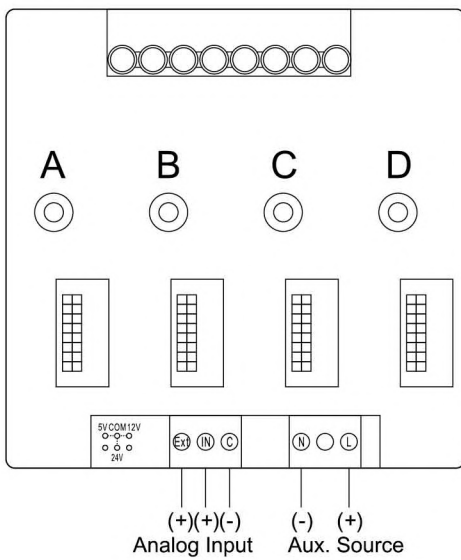
Wiring Connection

Input

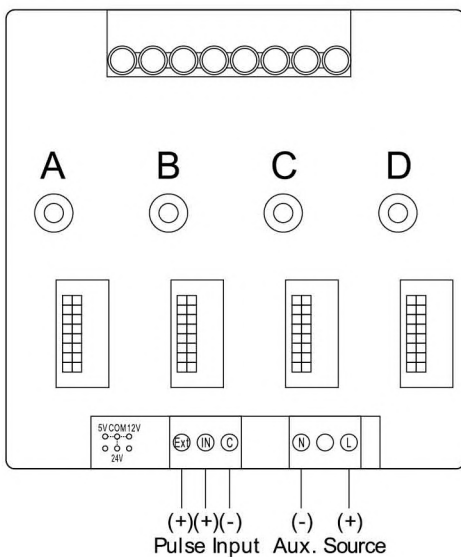
- T210B



- T210A

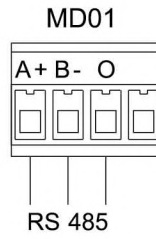


- T210P

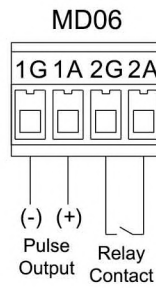


Output

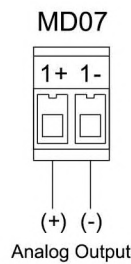
- RS 485



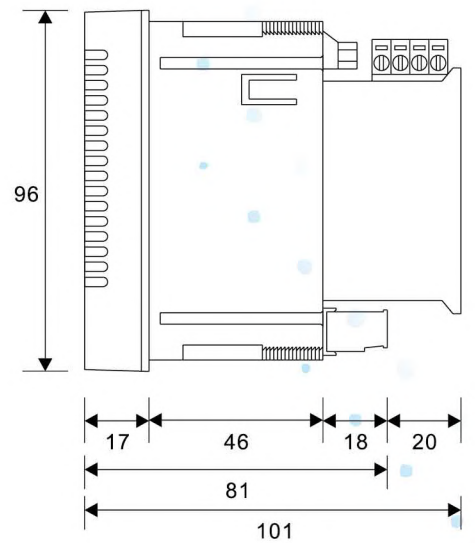
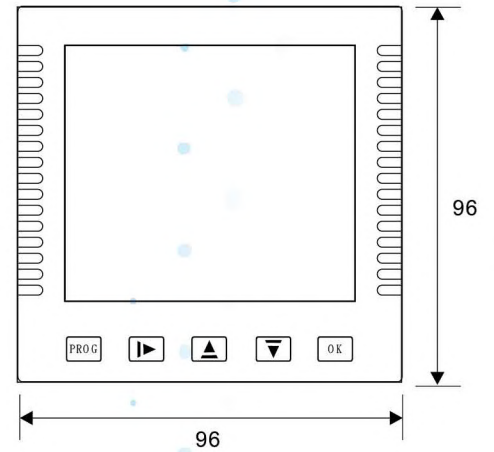
- Pulse + Relay



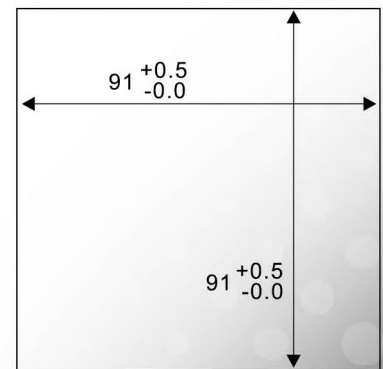
- DC 4-20mA



Dimension



Panel Cut-Out



Pluggable Module Code

Output	Code No
RS 485 interface	MD01
Pulse + Relay	MD06
DC 4-20mA	MD07

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TAIK ELECTRIC CO., LTD.

4TH FL., NO. 5, ALLEY 11, LANE 327, CHUNGSHAN RD.,
SEC. 2, CHUNGHE DISTRICT, NEW TAIPEI CITY, TAIWAN, R.O.C.

TEL : (02)2242-6825 | FAX : (02)2242-6827 | E-mail : taikco@ms15.hinet.net

