

TU-IP Series Analog Input Distribution Isolator

● The TU-IP series analog input distribution isolator is used to provide isolator power for on-site two wire and three wire transmitters, and to output the 0/4-20mA signal (or 0/4-20mA current source signal) generated by the transmitter from the isolator. This product requires independent power supply, with power, input, and output isolated.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|--------------|
| TU-IP | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Output Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | 4 | | | 0-5V |
| | 6 | | | 1-5V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-IPXXX
Eg: TU-IP111, 1 IN 1 OUT, Input & output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: 4-20mA;0-20mA
Max input current:35mA
Distribution voltage:≥19VDC

Output

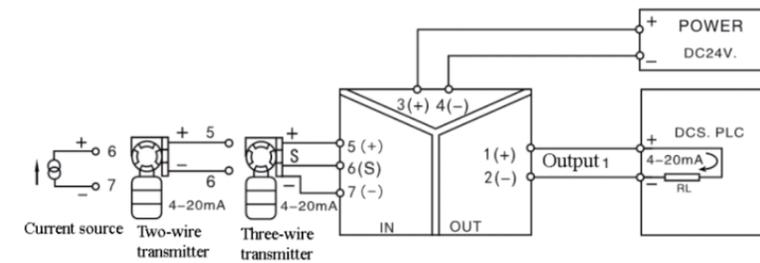
Output signal: 4-20mA;0-20mA; 0-5V; 0-10V
Max input current:35mA
Output load resistance: $RL \leq 550\Omega$ (output current signal),
 $RL \geq 330K\Omega$ (output voltage signal)

Basic Parameter

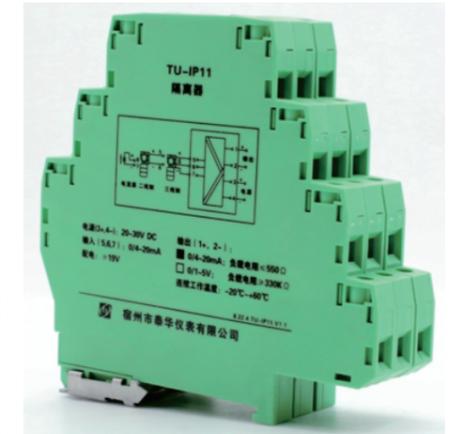
Channels: 1 IN 1 OUT(TU-IP1XX)
Power Supply: DC24V, voltage range: DC15 ~ 36V
Consumption Current: ≤60mA (1 IN 1 OUT, 24V power supply, 20mA output)
Basic Accuracy: ±0.1%F.S
Temperature Drift: ±0.05%F.S/°C (-20°C ~ +55°C)
Response Time: ≤0.5mS
Insulation Strength: 1500V AC/1min(Between input, output and power supply)
Insulation Resistance: ≥100MΩ(Between input, output, power supply and shell)

Working Temperature Range: -20 ~ +55°C (No condensation, no freezing)
Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)
Applicable Field Equipment: Two wire three wire transmitter,current source

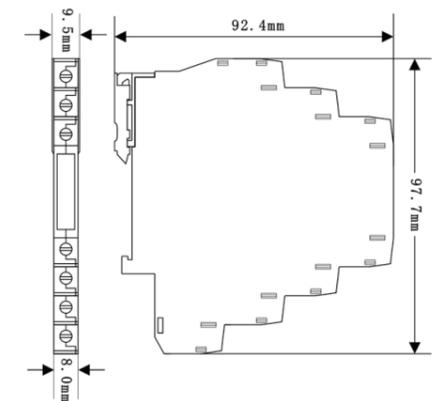
WIRING DIAGRAM



TU-IP111 1 IN, 1 OUT



OVERALL DIMENSION



TU-I/U Series Current/Voltage Input Isolator

- DC24V power supply isolates and converts various signals such as current, voltage, and mV from industrial sites into standard current and voltage signals, and transmits them to control rooms, PLCs, DCS, and display instruments.
- DIN rail independent installation method; Internally using optocoupler isolation technology, the input, output, and power supply are isolated from each other, featuring high accuracy, high linearity, and low temperature ticket.
- The input and output signal types can be configured, with multiple range options, and can be programmed through PC software.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|--------------|
| TU-I/U | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | 4 | | | 0-75mA |
| | 5 | | | 0-5V |
| | 7 | | | 0-10V |
| Output Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | 4 | | | 0-5V |
| | 6 | | | 0-10V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-IXXX
 Eg: TU-I111, 1 IN 1 OUT, Input & output: 4-20mA.
 TU-UXXX
 Eg: TU-U141, 1 IN 1 OUT, Input:0-75mV, output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: Voltage(range:0-10v)
 Millivolt(range:-100mV~+100mV)
 Current source(range:0-20mA)
 Input impedance:Voltage input $\geq 1M\Omega$;Current input $\leq 25\Omega$

Output

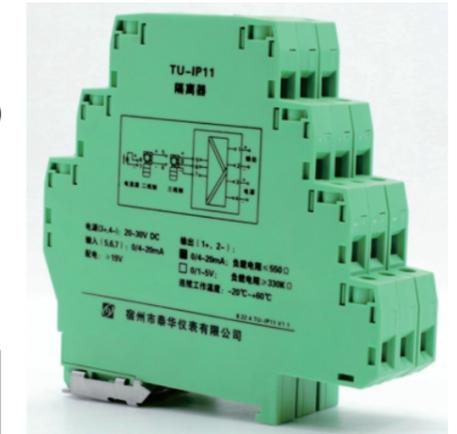
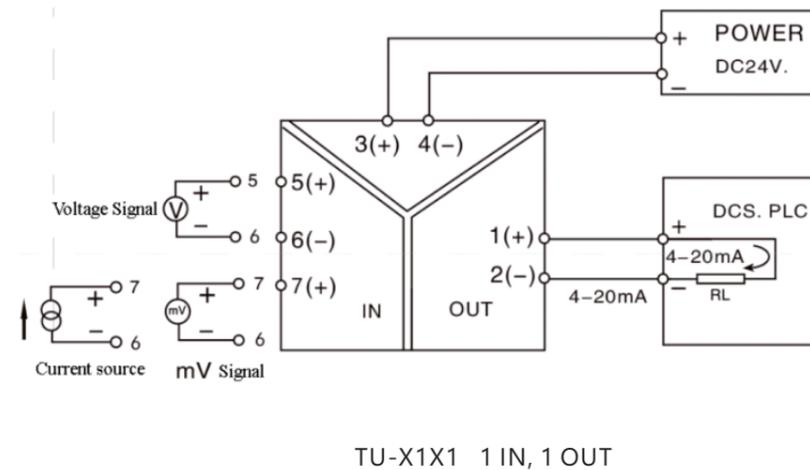
Output signal: 4-20mA;0-20mA; 0-5V; 0-10V
 Output load resistance: $RL \leq 350\Omega$ (output current signal),
 $RL \geq 10K\Omega$ (output voltage signal)

Basic Parameter

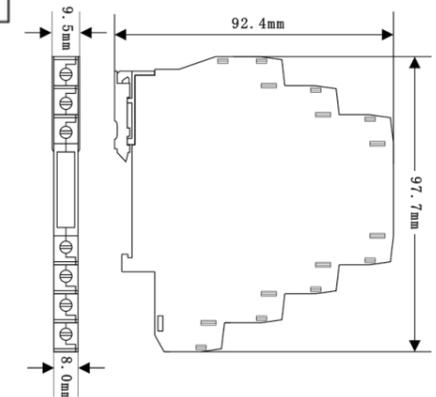
Power Supply: DC24V, voltage range: DC18 ~ 36V

Consumption Current: $\leq 35mA$ (1 IN 1 OUT, 24V power supply, 20mA output)
 Basic Accuracy: $\pm 0.1\%F.S$
 Temperature Drift: $\pm 0.05\%F.S/^{\circ}C$ (-20 $^{\circ}C$ ~ +55 $^{\circ}C$)
 Response Time: $\leq 1S$ (0-90%)(TYP)
 Insulation Strength: 1500V AC/1min(Between input, output and power supply)
 Insulation Resistance: $\geq 100M\Omega$ (Between input, output, power supply and shell)
 Working Temperature Range: -20 ~ +55 $^{\circ}C$
 Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)
 Applicable Field Equipment: Current source,voltage source

WIRING DIAGRAM



OVERALL DIMENSION



TU-TC Series Thermocouple Temperature Isolation Transmitter

- Receive thermocouple signals from the site, isolate and transmit standard current/voltage signals to the control room, PLC/DCS, and display instruments.
- The signal type, measurement range, alarm parameters, etc. can be programmed through PC software.
- High reliable isolation of input, output, and power ports; DIN rail independent installation method.

| SELECTION TABLE | | | | |
|--|---|---|---|--------------|
| TU-TC | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal (Type Of Thermal Resistor) | B | | | 0~+1820°C |
| | E | | | -270~+1000°C |
| | J | | | -210~+1200°C |
| | K | | | -270~+1372°C |
| | N | | | -270~+1300°C |
| | R | | | -50~+1768°C |
| | S | | | -50~+1768°C |
| | T | | | -270~+400°C |
| Output Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | 4 | | | 0-5V |
| | 6 | | | 0-10V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-TCXX
Eg: TU-TC1K1/0-500, Input:K model thermocouple(0-500°C), output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Cold end compensation: compensation range: -20 °C~+60 °C
Compensation method: Internal compensation;
Cold end compensation accuracy:±1°C

Output

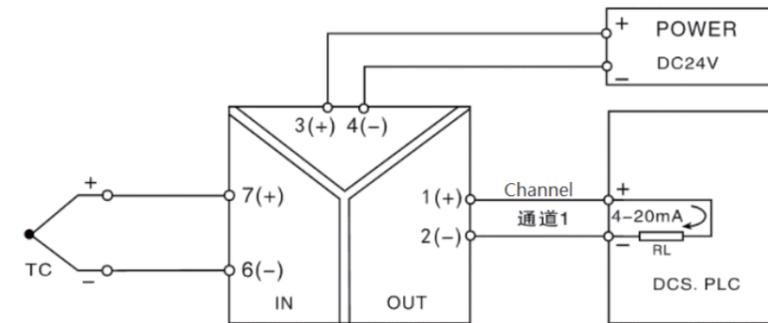
Output signal: 4-20mA;0-20mA; 0-5V; 0-10V
Output load resistance: $RL \leq 350\Omega$ (output current signal),
 $RL \geq 10K\Omega$ (output voltage signal)

Basic Parameter

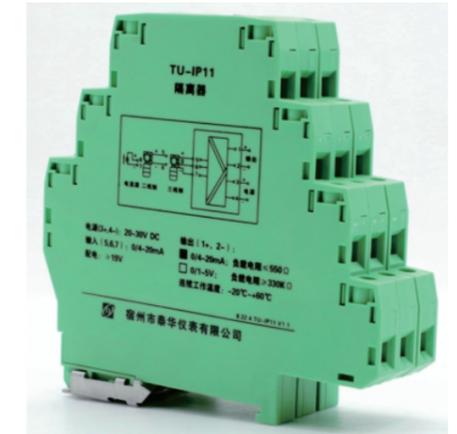
Consumption Current: $\leq 35mA$ (1 IN 1 OUT, 24V power supply, 20mA output)
Power Supply: DC24V, voltage range: DC18 ~ 36V
Over limit alarm: Below the lower temperature limit, output 3.8mA (at 4-20m output)
Above the upper temperature limit, output 20.5mA
Break alarm: Output 22mA

Basic Accuracy: $\pm 0.2\%F.S$
Temperature Drift: $\pm 0.005\%F.S/^{\circ}C$ (-20°C ~ +55°C)
Insulation Strength: 1500V AC/1min(Between input, output and power supply)
Insulation Resistance: $\geq 100M\Omega$ (Between input, output and power supply)
Working Temperature Range: -20 ~ +55°C
Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)
Applicable Field Equipment: Current source,voltage source

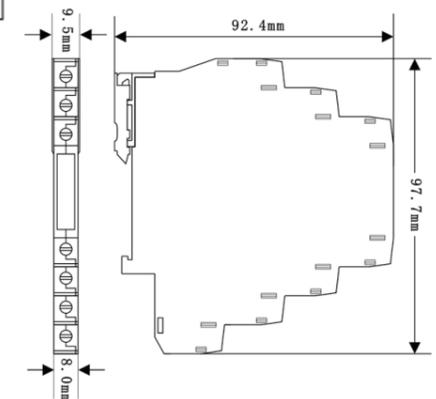
WIRING DIAGRAM



TU-TC1XX1 1 IN, 1 OUT



OVERALL DIMENSION



TU-TR Series Thermal Resistance Temperature Isolation Transmitter

- Receive thermocouple signals from the site, isolate and transmit standard current/voltage signals to the control room, PLC/DCS, and display instruments.
- The signal type, measurement range, alarm parameters, etc. can be programmed through PC software.
- High reliable isolation of input, output, and power ports; DIN rail independent installation method.

| SELECTION TABLE | | | | |
|-----------------|----|---|---|---------------------|
| TU-TC | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal | C5 | | | Cu50(-50~+150°C) |
| | C1 | | | CU100(-50~+150°C) |
| | P1 | | | Pt100(-200~+850°C) |
| | P2 | | | Pt1000(-200~+250°C) |
| | N1 | | | Ni100(-60~+180°C) |
| | N2 | | | Ni1000(-60~+150°C) |
| Output Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | 4 | | | 0-5V |
| | 6 | | | 0-10V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-TRXX
Eg: TU-TR1P11/0-100, Input:Pt100(0-100°C), output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: Pt100,Cu50,Ni1000 etc. thermal resistance signal
Permissible line resistance: $\leq 22\Omega$

Output

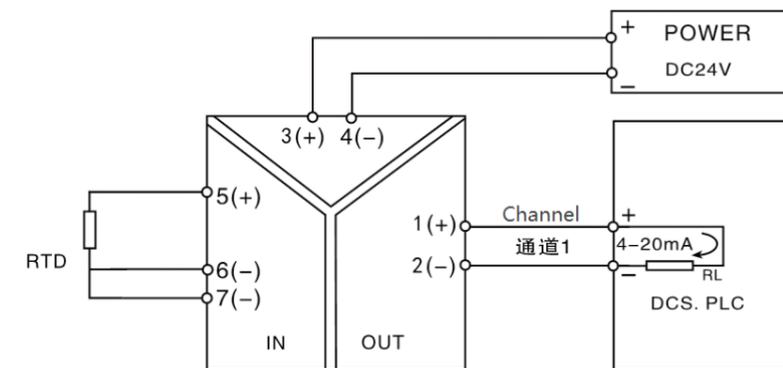
Output signal: 4-20mA;0-20mA; 0-5V; 0-10V
Output load resistance: $RL \leq 350\Omega$ (output current signal),
 $RL \geq 10K\Omega$ (output voltage signal)

Basic Parameter

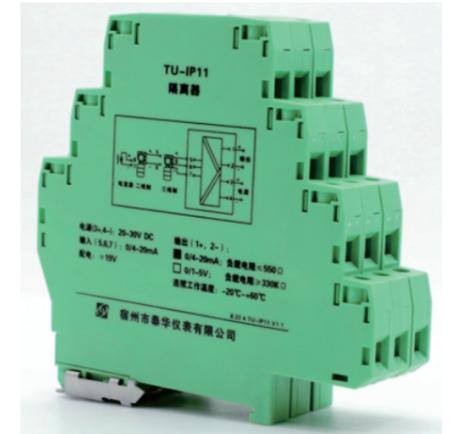
Power Supply: DC24V, voltage range: DC18 ~ 36V
Consumption Current: $\leq 35mA$ (1 IN 1 OUT, 24V power supply, 20mA output)
Over limit alarm: Below the lower temperature limit, output 3.8mA (at 4-20m output)
Above the upper temperature limit, output 20.5mA
Break alarm: Output 22mA

Basic Accuracy: 0.2%F.S
Temperature Drift: $\pm 0.005\%F.S/^{\circ}C$ (-20°C ~ +55°C)
Insulation Strength: 1500V AC/1min(Between input, output and power supply)
Insulation Resistance: $\geq 100M\Omega$ (Between input, output and power supply)
Working Temperature Range: -20 ~ +55°C
Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)
Applicable Field Equipment: Two wire, three wire thermal resistance

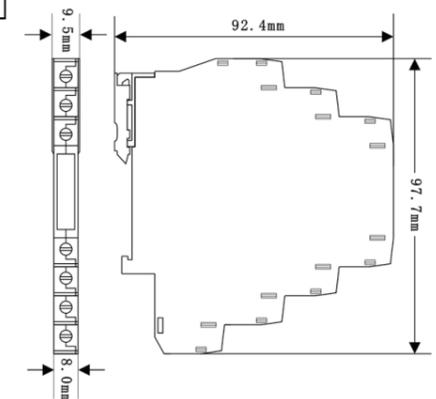
WIRING DIAGRAM



TU-TR1XX1 1 IN, 1 OUT



OVERALL DIMENSION



TU-RP Series Potentiometer Signal Isolator

- Receive on-site potentiometer signals, transform them into standard signals with linear resistance values such as 4-20mA, 0-5V, and output them to DCS or other secondary instruments.
- DIN rail independent installation method.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|--------------|
| TU-RP | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal | A | | | 0-500Ω |
| | B | | | 0-1KΩ |
| | C | | | 0-5KΩ |
| | | | | |
| Output Signal | | 1 | | 4-20mA |
| | | 2 | | 0-20mA |
| | | 4 | | 0-5V |
| | | 6 | | 0-10V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-RP1XX
Eg: TU-RP1C1, 1 IN 1 OUT, Input:0-5KΩ ,output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: Potentiometer signal, Resistance range:0-5KΩ

Output

Output signal: 4-20mA;0-20mA; 0-5V; 0-10V

Output load resistance: $RL \leq 350\Omega$ (output current signal),
 $RL \geq 10K\Omega$ (output voltage signal)

Basic Parameter

Power Supply: DC24V, voltage range: DC18 ~ 36V

Consumption Current: $\leq 35mA$ (1 IN 1 OUT, 24V power supply, 20mA output)

Over limit alarm: Below the lower temperature limit, output 3.8mA (at 4-20m output)
Above the upper temperature limit, output 20.5mA

Break alarm: Output 22mA

Basic Accuracy: 0.2%F.S

Response time: $\leq 1S$ (0-90%) (TYP)

Temperature Drift: $\pm 0.005\%F.S/^{\circ}C$ (-20 $^{\circ}C$ ~ +55 $^{\circ}C$)

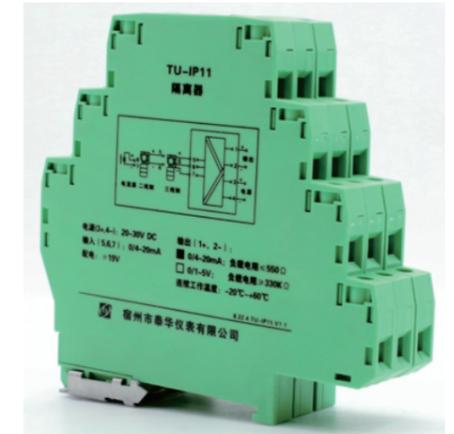
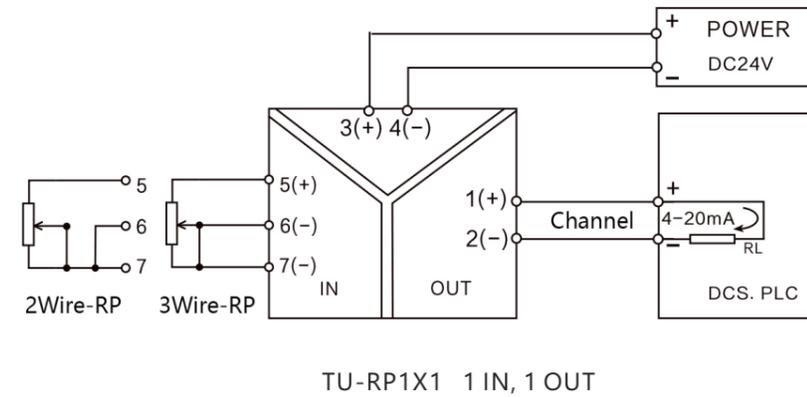
Insulation Strength: 1500V AC/1min(Between input, output and power supply)

Insulation Resistance: $\geq 100M\Omega$ (Between input, output and power supply)

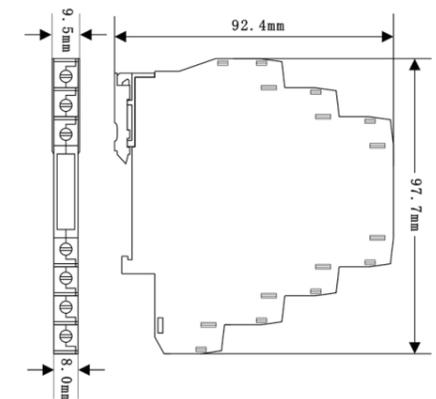
Working Temperature Range: -20 ~ +55 $^{\circ}C$

Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)
Applicable Field Equipment: Potentiometer

WIRING DIAGRAM



OVERALL DIMENSION



TU-SP Series Thermal Resistance Temperature Isolation Transmitter (Loop power supply)

- The thermal resistance input isolator (circuit powered) converts the on-site thermal resistance signal through digital linearization processing into a 4-20mA current signal that is linear with the same temperature and isolated for output. It has a sensor disconnection alarm indication function.

- DIN rail independent installation method.

| SELECTION TABLE | | | | |
|-----------------|----|---|---|----------------------------|
| TU-SP | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal | C5 | | | Cu50 (-50~+150°C) |
| | P1 | | | Pt100 (-200~+850°C) |
| | | | | |
| | | | | |
| Output Signal | | 0 | | 4-20mA (Loop power supply) |
| | | | | |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-SPXXX
 Eg: TU-SP1P11/0-100, Input:Pt100(0-100°C),output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: PT100,Cu50 etc. thermal resistance signal

Output

Output signal: 4-20mA

Output load resistance: $RL \leq (Ue-12)/0.022$

Basic Parameter

Power Supply: DC24V, voltage range: DC12 ~ 30V

Over limit alarm: Below the lower temperature limit, output 3.9mA (at 4-20m output)

Above the upper temperature limit, output 21mA

Break alarm: Output 22mA

Temperature drift:0.01%F.S/°C

Basic Accuracy: 0.2%F.S

Response time:≤1S(0-90%) (TYP)

Insulation Strength: 1500V AC/1min(Between input, output and power supply)

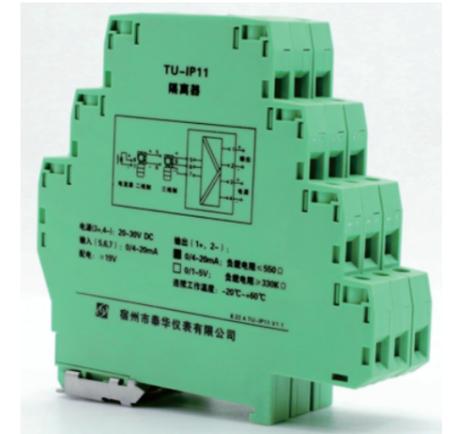
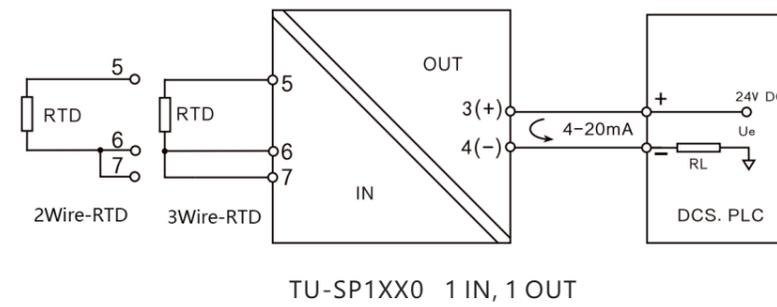
Insulation Resistance: ≥100MΩ(Between input, output and power supply)

Working Temperature Range: -20 ~ +55°C

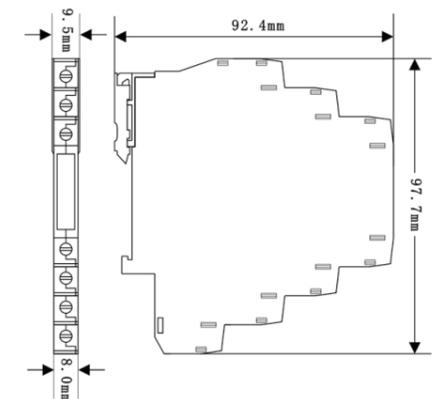
Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)

Applicable Field Equipment: Two wire, three wire thermal resistance

WIRING DIAGRAM



OVERALL DIMENSION



TU-SP Series Thermocouple Temperature Isolation Transmitter (Loop power supply)

- Thermocouple input isolator (loop powered), which digitally linearizes the on-site thermocouple signal and converts it into a 4-20mA current signal that is linear with the same temperature for isolation output. It has a sensor disconnection alarm indication function, and the thermocouple input has a cold end automatic compensation function. It is intelligent and can be configured with a computer for the thermocouple's graduation number, range range, etc.
- DIN rail independent installation method.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|---------------------------|
| TU-SP | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal | B | | | 400~+1820°C |
| | E | | | -100~+1000°C |
| | J | | | -100~+1200°C |
| | K | | | -180~+1372°C |
| | N | | | -200~+1300°C |
| | R | | | -50~+1760°C |
| | S | | | -50~+1760°C |
| | T | | | -200~+400°C |
| Output Signal | 0 | | | 4-20mA(Loop power supply) |
| | | | | |
| | | | | |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-SPXXX
Eg: TU-SP1K0/0-500, Input:K model(0-500°C),output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: B, E, J, K etc thermocouple signal

Output

Output signal: 4-20mA

Output load resistance: $RL \leq (U_e - 12) / 0.022$

Basic Parameter

Power Supply: DC12 ~ 30V

Over limit alarm: Below the lower temperature limit, output 3.9mA (at 4-20m output)

Above the upper temperature limit, output 21mA

Break alarm: Output 22mA

Temperature drift: 0.01%F.S/°C

Basic Accuracy: 0.2%F.S

Response time: $\leq 1S$ (0-90%) (TYP)

Insulation Strength: 1500V AC/1min(Between input, output and power supply)

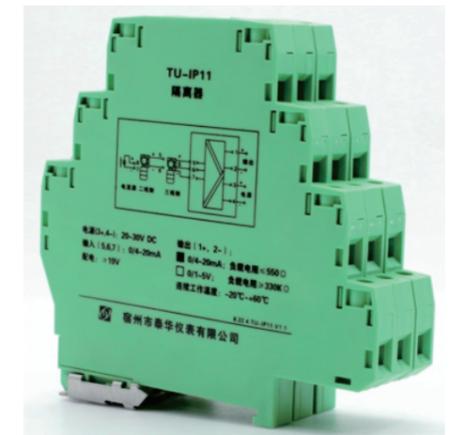
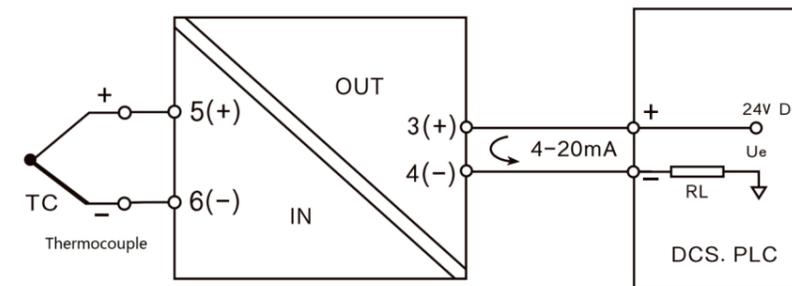
Insulation Resistance: $\geq 100M\Omega$ (Between input, output and power supply)

Working Temperature Range: -20 ~ +55°C

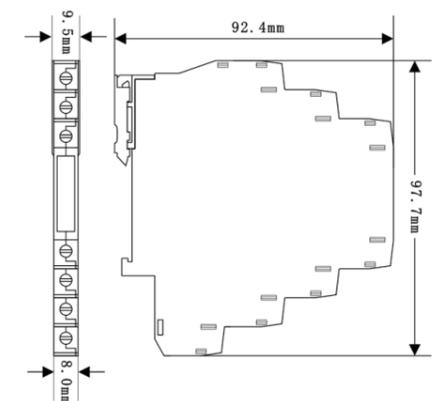
Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)

Applicable Field Equipment: Thermocouple

WIRING DIAGRAM



OVERALL DIMENSION



TU-SP Series Current, voltage Input Isolator (Loop power supply)

- The TU-SP series current and voltage input isolators receive DC current or DC voltage signals from the site, and after interference suppression, isolate and output 4-20mA current signals. Adopting a two wire loop power supply method, there is no need for external power supply.
- DIN rail independent installation method.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|---------------------------|
| TU-SP | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| Input Signal | B | | | 400~+1820°C |
| | E | | | -100~+1000°C |
| | J | | | -100~+1200°C |
| | K | | | -180~+1372°C |
| | N | | | -200~+1300°C |
| | R | | | -50~+1760°C |
| | S | | | -50~+1760°C |
| | T | | | -200~+400°C |
| Output Signal | | 0 | | 4-20mA(Loop power supply) |
| | | | | |
| | | | | |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

TU-SPXXX
Eg: TU-SP1K0/0-500, Input:K model(0-500°C),output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: B, E, J, K etc thermocouple signal

Output

Output signal: 4-20mA

Output load resistance: $RL \leq (U_e - 12) / 0.022$

Basic Parameter

Power Supply: DC12 ~ 30V

Over limit alarm: Below the lower temperature limit, output 3.9mA (at 4-20m output)

Above the upper temperature limit, output 21mA

Break alarm: Output 22mA

Temperature drift:0.01%F.S/°C

Basic Accuracy: 0.2%F.S

Response time:≤1S(0-90%) (TYP)

Insulation Strength: 1500V AC/1min(Between input, output and power supply)

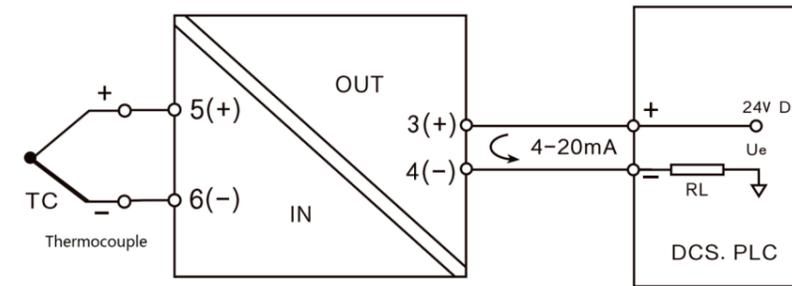
Insulation Resistance: $\geq 100M\Omega$ (Between input, output and power supply)

Working Temperature Range: -20 ~ +55°C

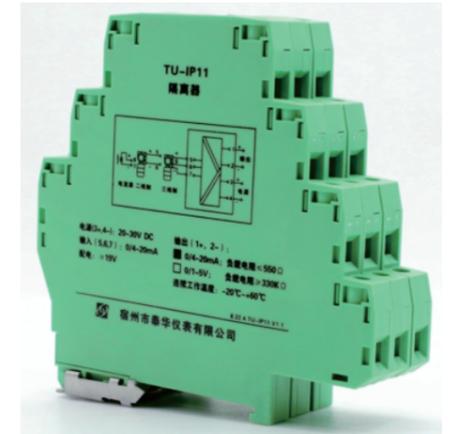
Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)

Applicable Field Equipment: Thermocouple

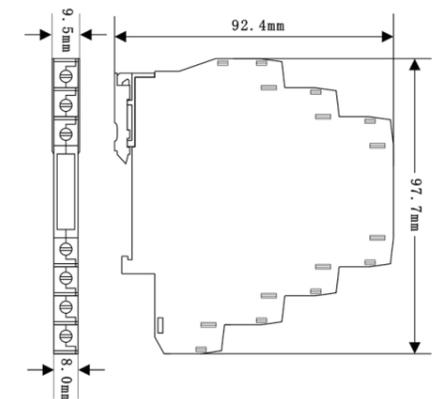
WIRING DIAGRAM



TU-SP1XX0 1 IN, 1 OUT



OVERALL DIMENSION



THP-IP Series Current/Voltage Input Distribution Isolators

- DC24V or AC220V power supply, providing isolated power distribution for on-site transmitters, and realizing conversion of various signals such as voltage, current, and mv.
- Input interface current source, two-wire system and three-wire system transmitter are universal, and efficient magneto-electric isolation technology is adopted internally. Input, output and power supply are isolated from each other, with high accuracy, high linearity, low temperature drift and other characteristics.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|--------------|
| THP-IP/U | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| | 2 | | | 1 IN 2 OUT |
| | 5 | | | 2 IN 2 OUT |
| Input Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | 4 | | | 0-75mA |
| | 5 | | | 0-5V |
| Output Signal | 1 | | | 4-20mA |
| | 2 | | | 0-20mA |
| | 4 | | | 0-5V |
| | 6 | | | 0-10V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

THP-IPXXX
 Eg: THP-IP111, Current input, 1 IN 1 OUT, both input and output are DC 4-20mA.
 THP-UXXX
 Eg: THP-U141, Voltage input, 1 IN 1 OUT, both input: 0-75mv, output: DC 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: 4-20mA; 0-20mA; 0-75mA, 0-5v, 0-10v etc.
 Distribution voltage: 24V DC (max driving current 30mA)
 Input impedance: Current input $\leq 50\Omega$; voltage input: $\geq 300K\Omega$

Output

Output signal: 4-20mA; 0-20mA; 0-5v; 0-10v
 Output load resistance: $RL \leq 500\Omega$ (Output is current signal)
 $RL \geq 10K\Omega$ (Output is voltage signal)

Basic Parameter

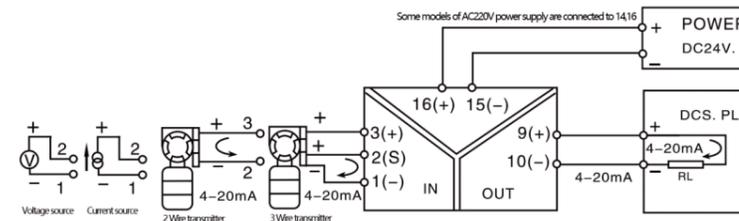
Power supply: DC24V $\pm 10\%$
 Consumption current: $\leq 50mA$ (1 IN 1 OUT, DC24V, when 20mA output)
 $\leq 70mA$ (1 IN 2 OUT, DC24V, when 20mA output)
 $\leq 100mA$ (2 IN 2 OUT, DC24V, when 20mA output)
 Basic accuracy: $\leq 0.1\%F.S$
 Temperature drift: 0.005%F.S/ $^{\circ}C$ (-20 $^{\circ}C$ ~+55 $^{\circ}C$)
 Response time: $\leq 10mS$ (0-90%) (TYP)
 Insulation strength: 1500VAC/1min (Between input, output and power)
 Insulation resistance: $\geq 100M\Omega$ (Between input, output and power)

Working temperature range: -20~+55 $^{\circ}C$

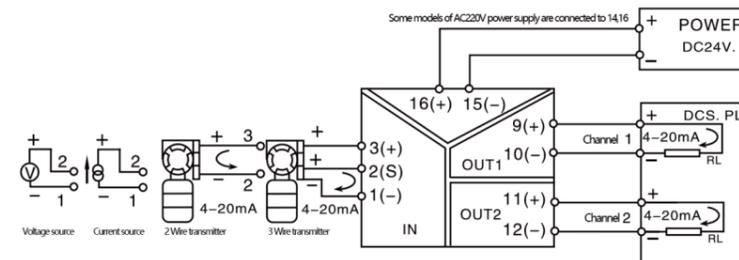
Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)

Applicable Field Equipment: 2Wire, 3wire transmitter, current source, voltage source.

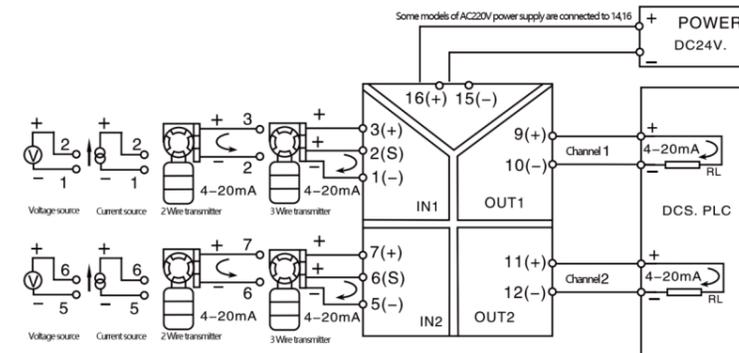
WIRING DIAGRAM



THP-IP/U1XX 1 IN 1 OUT



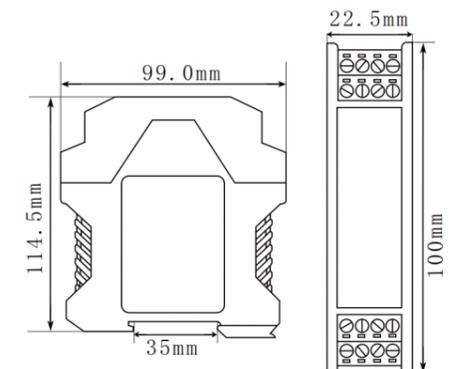
THP-IP/U2XX 1 IN 2 OUT



THP-IP/U5XX 2 IN 2 OUT



OVERALL DIMENSION



THP-IP Series Current/Voltage Input Distribution Isolators (Loop power supply)

- The THP-IP series passive isolator is used to connect to on-site two wire transmitters, provide power to them, and receive 4-20mA current signals from the two wire equipment output. After isolation, it outputs a 4-20mA current signal. Adopting a two wire loop power supply method, there is no need for external power supply.
- The THP-I/U series passive isolator receives DC current or DC voltage signals from the site, and after interference suppression, isolates and outputs a 4-20mA current signal. Adopting a two wire loop power supply method, there is no need for external power supply.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|--------------|
| THP-IP/U | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| | 2 | | | 1 IN 2 OUT |
| | 5 | | | 2 IN 2 OUT |
| Input Signal | | 1 | | 4-20mA |
| | | 2 | | 0-20mA |
| | | 4 | | 0-75mA |
| | | 5 | | 0-5V |
| | | 7 | | 0-10V |
| Output Signal | | 1 | | 4-20mA |
| | | 2 | | 0-20mA |
| | | 4 | | 0-5V |
| | | 6 | | 0-10V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

THP-IXXX
 EG: THP-I510, 1 IN/1 OUT, Loop power supply, Input: 0-5V, output 4-20mA.
 THP-IPXXX
 EG: THP-IP110, Distribution type, 1 IN/1 OUT, Loop power supply, Input&output: 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: 4-20mA; 0-20mA; 0-75mA, 0-5V, 0-10V etc.
 Input impedance: Current input: $\leq 100\Omega$; voltage input: $\geq 300K\Omega$

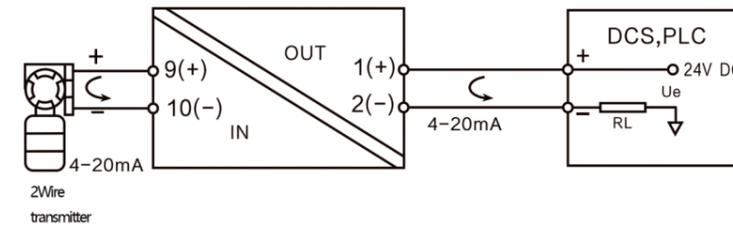
Output

Output signal: 4-20mA
 Output load resistance: $RL \leq 500\Omega$ (Output is current signal)

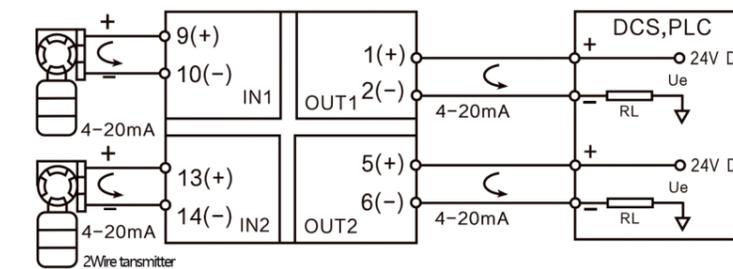
Basic Parameter

Power supply: None
 Basic accuracy: 0.2%F.S
 Temperature drift: 0.005%F.S/ $^{\circ}C$ (-20 $^{\circ}C$ ~+55 $^{\circ}C$)
 Response time: $\leq 10ms$ (0-90%) (TYP)
 Insulation strength: 1500VAC/1min (Between input, output and power)
 Insulation resistance: $\geq 100M\Omega$ (Between input, output and power)
 Working temperature range: -20~+55 $^{\circ}C$
 Electromagnetic Compatibility: According to GB/T 18268.1 (IEC61326-1)
 Applicable Field Equipment: 2Wire transmitter, current source, voltage output equipment.

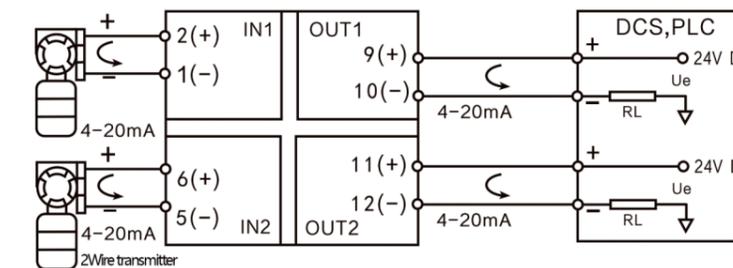
WIRING DIAGRAM



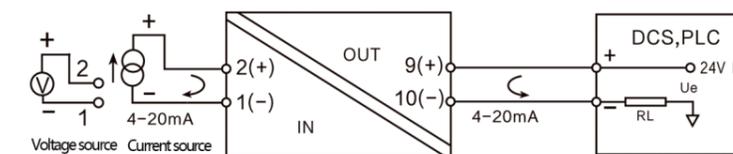
THP-IP110 1 IN 1 OUT



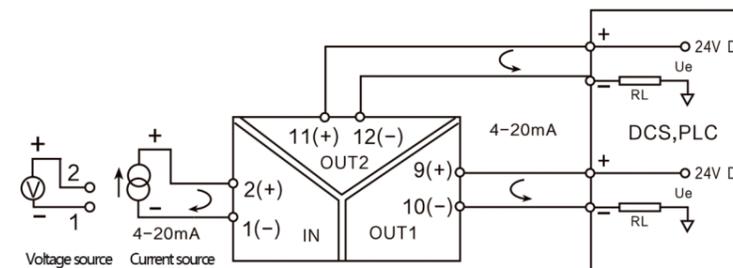
THP-IP510 2 IN 2 OUT



THP-IP510L 2 IN 2 OUT



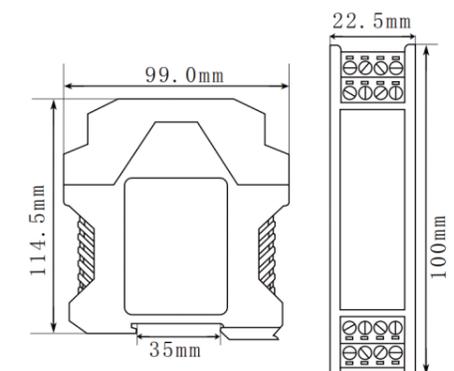
THP-I110 1 IN 1 OUT



THP-I210 1 IN 2 OUT



OVERALL DIMENSION



THP-IP/U Series Current/Voltage Input Signal Isolator Distributor

- DC24V Power supply, providing isolated power distribution for on-site transmitters, and realizing conversion of various signals such as voltage, current, and mv, and has a signal distribution function. It has various output types such as one input, three outputs, one input, four outputs, and two input, four outputs.
- Input interface current source, two-wire system and three-wire system transmitter are universal, and efficient magneto-electric isolation technology is adopted internally. Input, output and power supply are isolated from each other, with high accuracy, high linearity, low temperature drift and other characteristics.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|--------------|
| THP-IP/U | X | X | X | Instructions |
| Channel | 3 | | | 1 IN 1 OUT |
| | 4 | | | 1 IN 4 OUT |
| | 7 | | | 2 IN 4 OUT |
| Input Signal | | 1 | | 4-20mA |
| | | 2 | | 0-20mA |
| | | 4 | | 0-75mA |
| | | 5 | | 0-5V |
| | | 7 | | 0-10V |
| Output Signal | | 1 | | 4-20mA |
| | | 2 | | 0-20mA |
| | | 4 | | 0-5V |
| | | 6 | | 0-10V |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

THP-IPXXX
 EG:THP-IP311,Current input,1 IN/3 OUT,Both input and output are DC 4-20mA.
 THP-UXXX
 EG:THP-U451,Voltage input,1 IN/4 OUT,Input:0-5V,output 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: 4-20mA;0-20mA;0-75mA,0-5;0-10V etc
 Distribution voltage: 24V, (maximum driving current 30mA)
 Input impedance: current input $\leq 50 \Omega$;
 voltage input $\geq 300K \Omega$

Output

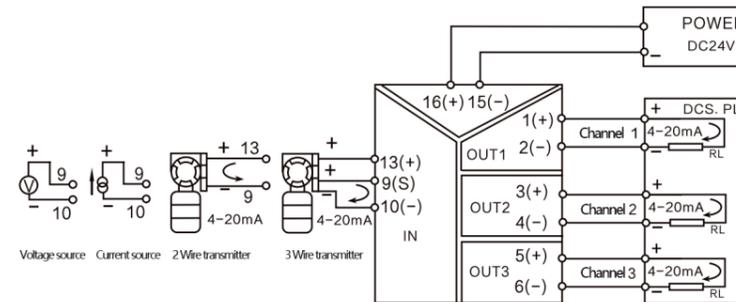
Output signal:4-20mA;0-20mA;0-5v;0-10v
 Output load resistance: $RL \leq 500 \Omega$ (Output is current signal)
 $RL \geq 10K \Omega$ (Output is voltage signal)

Basic Parameter

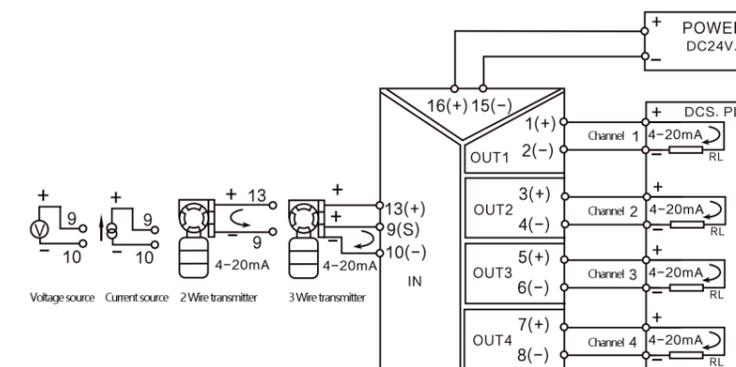
Power supply: DC24V $\pm 10\%$
 Consumption current: $\leq 120mA$ (1 IN 1 OUT,DC24V,when 20mA output)
 $\leq 140mA$ (1 IN 2 OUT,DC24V,when 20mA output)
 $\leq 160mA$ (2 IN 2 OUT,DC24V,when 20mA output)
 Basic accuracy: $\leq 0.1\%F.S$
 Temperature drift:0.005%F.S/ $^{\circ}C$ (-20 $^{\circ}C$ ~+55 $^{\circ}C$)
 Response time: $\leq 10mS(0-90\%)(TYP)$

Insulation strength:1500VAC/1min(Between input,output and power)
 Insulation resistance: $\geq 100M\Omega$ (Between input,output and power)
 Working temperature range:-20~+55 $^{\circ}C$
 Electromagnetic Compatibility: According to GB/T 18268.1(IEC61326-1)
 Applicable Field Equipment: 2Wire,3wire transmitter;Current source, voltage source

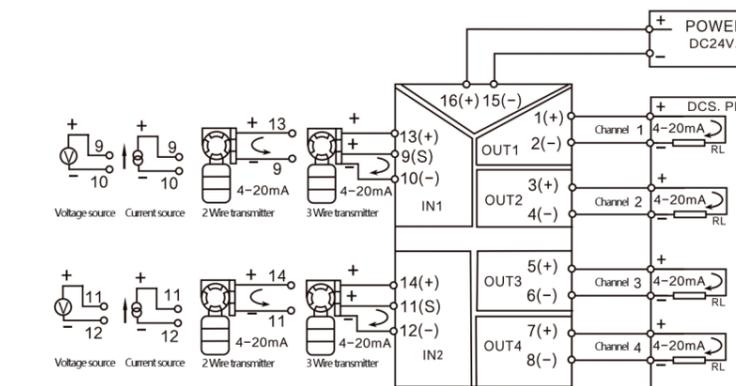
WIRING DIAGRAM



THP-IP311,1 IN 3 OUT



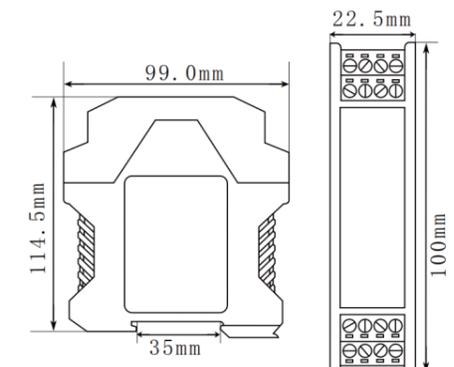
THP-IP411,1 IN 4 OUT



THP-IP711,2 IN 4 OUT



OVERALL DIMENSION



THP-I Series Passive Isolator

- THP-I series passive isolators do not require external power supply, and take power from input signals to isolate and output 4-20mA DC current signals of various equipment in the industrial field after interference suppression.
- DIN rail independent installation.

| SELECTION TABLE | | | | |
|-----------------|---|---|---|----------------------------------|
| THP-I | X | X | X | Instructions |
| Channel | 1 | | | 1 IN 1 OUT |
| | 2 | | | 1 IN 4 OUT |
| | 5 | | | 2 IN 4 OUT |
| | 9 | | | 4 IN 4 OUT |
| Input Signal | | 0 | | 4-20mA (Input side power supply) |
| | | | | |
| | | | | |
| Output Signal | | 1 | | 4-20mA |

Note: Customers need to determine the input signal form and output signal form when placing an order. If there are special needs, they can customize it

Product Selection

THP-IXXX

EG: THP-I101, 1 IN/1 OUT, Power on input side, Both input and output are DC 4-20mA.

MAIN TECHNICAL PARAMETERS

Input

Input signal: 4-20mA; 0-20mA

Pressure drop: 3V, TYP (When input is 20mA)

Input impedance: $150\Omega + \text{output load resistance}$

Output

Output signal: 4-20mA; 0-20mA

Output load resistance: $RL \leq 350\Omega$

Basic Parameter

Power supply: None

Basic accuracy: 0.2% F.S

Temperature drift: 0.005% F.S/°C (-20°C ~ +55°C)

Response time: $\leq 10\text{ms}$ (0-90%) (TYP)

Insulation strength: 1500VAC/1min (Between input, output and power)

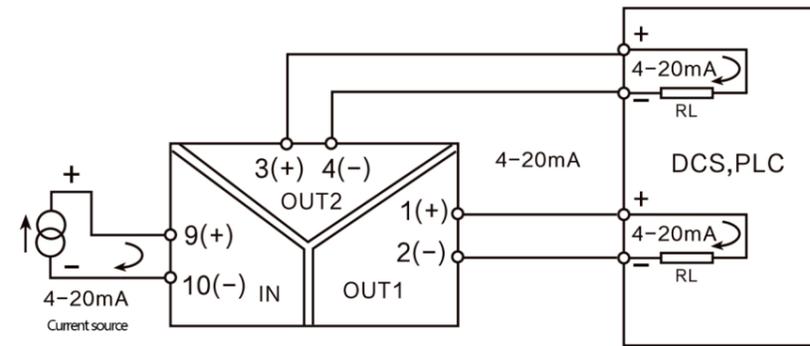
Insulation resistance: $\geq 100\text{M}\Omega$ (Between input, output and power)

Working temperature range: -20 ~ +55°C

Electromagnetic Compatibility: According to GB/T 18268.1 (IEC61326-1)

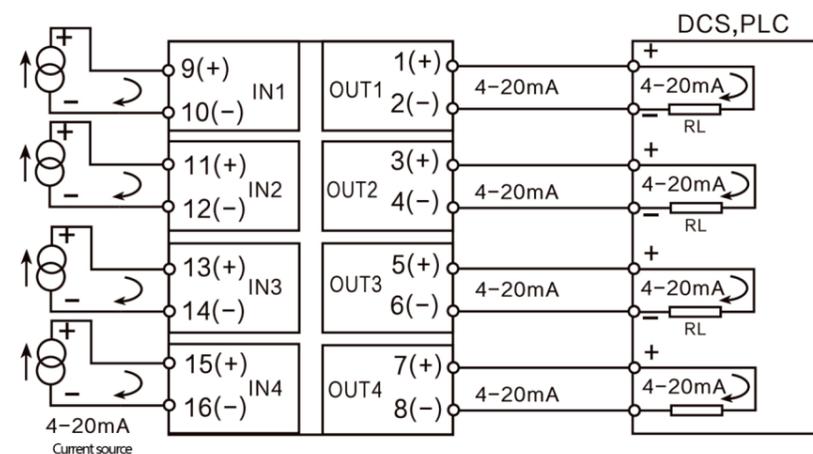
Applicable Field Equipment: 2Wire transmitter; Current source

WIRING DIAGRAM



THP-I201, 1 IN 2 OUT

Note: For the one in two out specification, if one output channel is idle and not in use, the idle output terminals must be short circuited with wires, otherwise the other channel cannot output normally.



THP-I901, 4 IN 4 OUT



OVERALL DIMENSION

