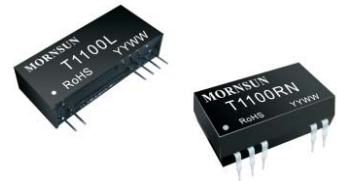


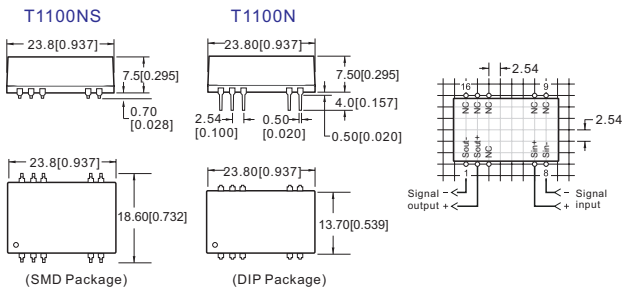


Passive Signal Amplifier

T1100 series, a standard analog amplifier, with 4-20mA current signal input and 4-20mA current signal output, is a passive signal isolation module. Adopting unique electromagnetism isolation design and high efficiency loop electric-larceny technology, independent power supply isn't required for the module, realizing 4-20mA standard signal isolation with high accuracy and linearity. Besides, the modules have extremely low temperature drift (no more than 35ppm/°C at -25°C to +71°C). These modules have a two-port isolation(input and output) and the isolation voltage between them is up to 3KVDC.

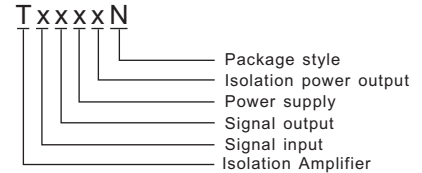


T1100N/NS PACKAGE INFORMATION AND PIN ASSIGNMENT

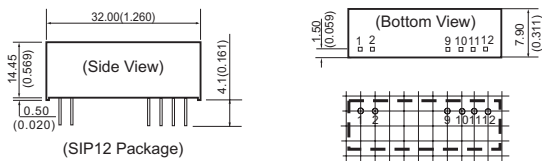


PIN	FUNCTION
1(Sout-)	Output-
2(Sout+)	Output+
7(Sin+)	Input+
8(Sin-)	Input-
Others	NC

NC: No Connection, otherwise the module will be damaged.
Unit: mm
Tolerance: 0.0±0.25, 0.00±0.25



T1100L PACKAGE INFORMATION AND PIN ASSIGNMENT



PIN	FUNCTION
1(lin+)	Input+
2(lin-)	Input-
9,10(lout-)	Output-
11,12(lout+)	Output+

Unit: mm
Tolerance: 0.0±0.25, 0.00±0.25

- ### FEATURES
- High precision(0.1% F.S.)
 - High linearity(0.1% F.S.)
 - Isolation voltage 3KVDC/60S
 - Low voltage drop-out (@ 20mA < 3V)
 - High frequency response
 - Extremely low temperature drift(35ppm/°C)
 - Industry standard(Operating Temperature: -25°C ~ 71°C)
 - High reliability(MTBF > 500,000 hours)

ELECTRICAL CHARACTERISTICS

- Power Supply Parameter
 - Power Supply.....None
 - Power consumption...None
 - Power Protection.....None
- Input Parameter
 - Input Signal.....4~20mA
 - Overload≤50mA
 - Voltage Drop-out...Typ: 3V(@ input = 20mA)
- Output Parameter
 - Output Signal.....4~20mA
 - Load Regulation.....<0.05% meas.val./100Ω

TRANSMISSION CHARACTERISTICS

- Zero Offset..... 0.1%F.S.
- Gain Error..... 0.1%F.S.
- Temperature Drift.....0.0035%F.S./°C(-25°C~+71°C)

ISOLATION CHARACTERISTICS

- Galvanic Isolation.....Two-port isolation (Between input and output)
- Isolation Voltage.....3KVDC (Tested for 1minute,leakage current < 1mA, humidity < 70%RH)
- Insulation Resistance.....100MΩ,500VDC (Between input and output)

OTHER CHARACTERISTICS

- Ambient temperature.....Operation temperature: -25~+71°C
Transport and Storage Temperature:-50~+105°C
- Package.....DIP16/SMD16/SIP12
- Weight.....About 8g
- Application Environment...No dust, fierce vibration, impulsion and corrosive gas.

PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Isolation Power Output	Channels	Package
T1100N/NS	None	4~20mA	4~20mA	None	1	DIP16/SMD16
T1100RN/RNS	None	4~20mA	4~20mA	None	1	DIP16/SMD16
T1100L	None	4~20mA	4~20mA	None	1	SIP12

AC-DC SERIES
DC-DC FIXED INPUT ISOLATED/UNREGULATED
DC-DC FIXED INPUT ISOLATED/REGULATED
DC-DC WIDE INPUT ISOLATED/REGULATED
DC-DC ULTRA-WIDE INPUT ISOLATED/REGULATED
DC-DC WIDE INPUT NON-ISOLATED/REGULATED
LED DRIVER
IGBT DRIVER
ISOLATION AMPLIFIER MODULE

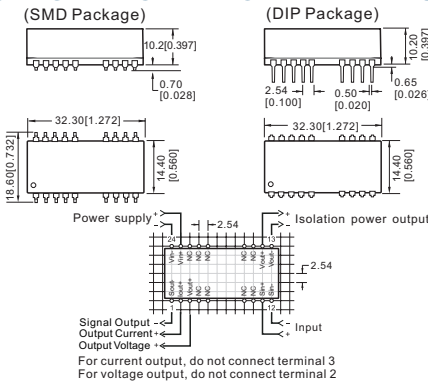


Isolation Amplifier Module

Active D series of high-precision isolation Amplifier

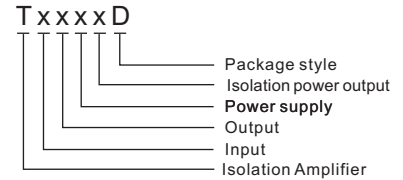
The series is a high integration, high efficiency linear active isolation amplifier module, with current/voltage signal input and current/voltage signal output. These modules, with a high efficiency micro-power source built-in, can provide energy for internal process circuit and isolation power output for front-end circuit. In the two-wire, three-wire and four-wire circuit applications, our products largely simplify customers' design and helpfully improve the using room ratio of PCB. Adopting electromagnetism isolation technology, it is available to keep higher accuracy and extremely lower temperature drift than photocouple isolation. These modules have four-port isolation(input, output, power supply and isolation power out).

PACKAGE INFORMATION AND PIN ASSIGNMENT



PIN	FUNCTION
1(Sout-)	Signal output-
2/3(Sout+)	Current/Voltage Signal output+
11(Sin+)	Input+
12(Sin-)	Input-
13(Vout-)	Isolation power output-
14(Vout+)	Isolation power output+
23(Vin+)	Power supply+
24(Vin-)	Power supply-
Others	NC

NC: No Connection, otherwise the module will be damaged.
Unit: mm
General tolerances: 0.0±0.25, 0.00±0.25



FEATURES

- High precision(0.1% F.S.)
- High linearity(0.1% F.S.)
- Isolation voltage(2.5KVDC/60S)
- High frequency response
- Extremely low temperature drift(35ppm/°C)
- Industry standard(Operating Temperature Range:-25°C ~ 71°C)
- High reliability(MTBF>500,000 hours)

ELECTRICAL CHARACTERISTICS

- Power Supply Parameter
 - Power Supply.....(24VDC/15VDC/12VDC)±5%
 - Power consumption...≤2W
 - Power Protection.....Reverse protection
- Isolation Power Output Parameter
 - Output Voltage.....(±15VDC/±12VDC/24VDC/15VDC/12VDC)±10%
 - Output Current.....≤25 mA
- Input Parameter
 - Input Signal.....0/4~20mA; 0/2~10V; 0/1~5V
 - Input Impedance.....Voltage drop-out≤250mV (current input is 20mA) ≥10MΩ(voltage input)
 - Overload.....≤50mA(@ current input) ≤15V(@ voltage input)
- Output Parameter
 - Output Signal.....0/4~20mA; 0/2~10V; 0/1~5V
 - Load capacity.....≤500Ω(current output is 20mA) >1KΩ(voltage output is max.)

TRANSMISSION CHARACTERISTICS

- Zero Offset.....0.1%F.S.
- Gain Error.....0.1%F.S.
- Temperature Drift.....0.0035%F.S./°C (-25°C ~ +71°C)

ISOLATION CHARACTERISTICS

- Galvanic Isolation.....Four-port isolation (Between input, output, power supply and isolation power output)
- Isolation Voltage.....2.5KVDC (Tested for 1minute and leakage current <1mA max, humidity <70%)(Note: The isolation voltage is 500VDC between isolation power output and input when there is isolation power output)
- Insulation Resistance.....100MΩ, 500VDC(Between signal input, signal output, power supply and isolation power output)

OTHER CHARACTERISTICS

- Ambient temperature.....Operation temperature:-25°C ~ +71°C Transport and Storage Temperature:-50°C~ +105°C
- Package.....DIP24/SMD24
- Weight.....About 10g
- Application environment....No dust, fierce vibration, impulsion and corrosive gas

PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Isolation Power Output	Channels
T1133D/S	24V	4~20mA	4~20mA	24V	1
T1433D/S	24V	4~20mA	1~5V	24V	1
T1455D/S	12V	4~20mA	1~5V	12V	1
T1530D/S	24V	4~20mA	0~10V	NONE	1
T1633D/S	24V	4~20mA	0~5V	24V	1
T1650D/S	12V	4~20mA	0~5V	NONE	1
T2230D/S	24V	0~20mA	0~20mA	NONE	1
T2630D/S	24V	0~20mA	0~5V	NONE	1
T2633D/S	24V	0~20mA	0~5V	24V	1
T2650D/S	12V	0~20mA	0~5V	NONE	1
T5130D/S	24V	0~10V	4~20mA	NONE	1
T5150D/S	12V	0~10V	4~20mA	NONE	1
T5230D/S	24V	0~10V	0~20mA	NONE	1
T5250D/S	12V	0~10V	0~20mA	NONE	1
T5530D/S	24V	0~10V	0~10V	NONE	1
T5533D/S	24V	0~10V	0~10V	24V	1
T5535D/S	24V	0~10V	0~10V	12V	1
T5540D/S	15V	0~10V	0~10V	NONE	1
T5541D/S	15V	0~10V	0~10V	±15V	1

Note: We could also offer customer design for special input and output.

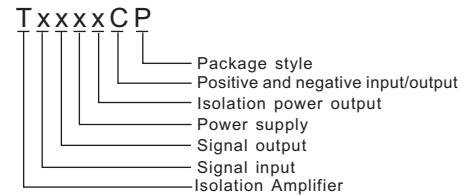
Part Number	Power Supply	Input	Output	Isolation Power Output	Channels
T5544D/S	15V	0~10V	0~10V	15V	1
T5550D/S	12V	0~10V	0~10V	NONE	1
T5630D/S	24V	0~10V	0~5V	NONE	1
T6130D/S	24V	0~5V	4~20mA	NONE	1
T6133D/S	24V	0~5V	4~20mA	24V	1
T6150D/S	12V	0~5V	4~20mA	NONE	1
T6230D/S	24V	0~5V	0~20mA	NONE	1
T6232D/S	24V	0~5V	0~20mA	±12V	1
T6233D/S	24V	0~5V	0~20mA	24V	1
T6235D/S	24V	0~5V	0~20mA	12V	1
T6236D/S	24V	0~5V	0~20mA	5V	1
T6250D/S	12V	0~5V	0~20mA	NONE	1
T6255D/S	12V	0~5V	0~20mA	12V	1
T6530D/S	24V	0~5V	0~10V	NONE	1
T6630D/S	24V	0~5V	0~5V	NONE	1
T6633D/S	24V	0~5V	0~5V	24V	1
T6635D/S	24V	0~5V	0~5V	12V	1
T6650D/S	12V	0~5V	0~5V	NONE	1
T6652D/S	12V	0~5V	0~5V	±12V	1
T6653D/S	12V	0~5V	0~5V	24V	1
T6655D/S	12V	0~5V	0~5V	12V	1

Isolation Amplifier Module

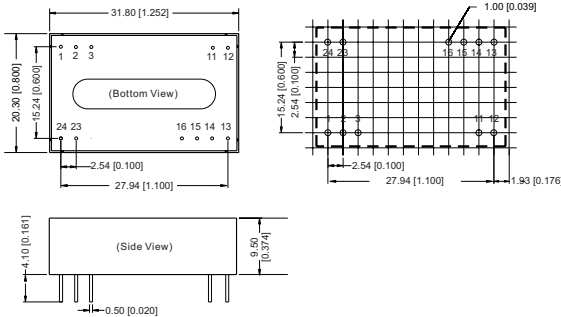


Positive and Negative Signal Amplifier

The T_CP series is a high integration and efficiency active isolation amplifier module, with positive and negative signal input and positive and negative signal output. These modules, with a high efficiency micro-power source built-in, can provide energy for internal process circuit and isolation power output for front-end circuit. The product greatly simplifies the design of the user in the applications of three-wire and four-wire, also it improves the using room ratio of PCB. Adopting electromagnetism isolation technology, it is available to keep higher accuracy and extremely lower temperature drift than photocouple isolation. These modules have four-port isolation(input, output, power supply and isolation power out).



PACKAGE INFORMATION AND PIN ASSIGNMENT



Pin	Function
1(Sout-)	Signal output(-)
3(Sout+)	Signal output(+)
11(Sin+)	Signal input(+)
12(Sin-)	Signal input(-)
13(Vout-)	Isolation power output(-)
14(Vout+)	Isolation power output(+)
23(Pin+)	Power supply(+)
24(Pin-)	Power supply(-)
2,15,16(NC)	No function pin

NC: No connection, otherwise the module will be damaged.
Unit: mm
General tolerances: ± 0.25

FEATURES

- High precision(0.1% F.S.)
- High linearity(0.1% F.S.)
- Isolation voltage(2.5KVDC/60S)
- High frequency response
- Low temperature drift(35ppm/°C)
- Industry standard(Operating Temperature Range:-25°C ~ 71°C)
- High reliability(MTBF>500,000 hours)

ELECTRICAL CHARACTERISTICS

- Power Supply Parameter
 - Power Supply.....(24VDC/15VDC/12VDC) $\pm 5\%$
 - Power Consumption... $\leq 2W$
 - Power Protection.....Reverse protection
- Isolation Power Output Parameter
 - Output Voltage.....($\pm 15VDC \pm 12VDC/24VDC$ /15VDC/12VDC) $\pm 10\%$
 - Output Current..... ≤ 25 mA
- Input Parameter
 - Input Signal..... $\pm 5V \pm 10V$
 - Input Impedance..... $\geq 10M\Omega$ (@ max input signal)
 - Overload..... $\leq 15V$
- Output Parameter
 - Output Signal..... $\pm 5V \pm 10V$
 - Load Capacity..... $\geq 2K\Omega$ (@ 10V output)

TRANSMISSION CHARACTERISTICS

- Zero Offset.....0.1%F.S.
- Gain Error.....0.1%F.S.
- Temperature Drift.....0.0035%F.S./°C(-25°C~+71°C)

ISOLATION CHARACTERISTICS

- Galvanic Isolation.....Four-port isolation (input, output, power supply and Isolation power output)
- Isolation Voltage.....2.5KVDC (Tested for 1minute and leakage current <1mA max, humidity < 70%)(Note: The isolation voltage is 500VDC between isolation power output and input when there is isolation power output)
- Insulation Resistance...100M Ω , 500VDC (Between signal input ,signal output, power supply and isolation power output)

OTHER CHARACTERISTICS

- Ambient temperature.....Operation temperature:-25°C ~ +71°C
Transport and Storage Temperature:-50°C ~ +105°C
- Package.....DIP24
- Weight.....About 10g
- Application environment: No dust, fierce vibration, impulsion and corrosive gas.

PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Isolation Power Output	Channels
T5530CP	24V	$\pm 10V$	$\pm 10V$	None	1
T5533CP	24V	$\pm 10V$	$\pm 10V$	24V	1
T5540CP	15V	$\pm 10V$	$\pm 10V$	None	1
T6630CP	24V	$\pm 5V$	$\pm 5V$	None	1
T6640CP	15V	$\pm 5V$	$\pm 5V$	None	1

Note: We could also offer customer design for special input and output.

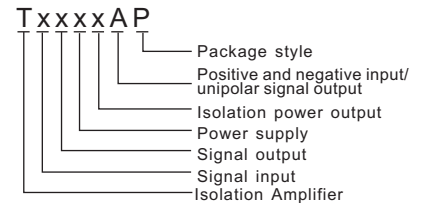
AC-DC SERIES
DC-DC FIXED INPUT ISOLATED/UNREGULATED
DC-DC FIXED INPUT ISOLATED/REGULATED
DC-DC WIDE INPUT ISOLATED/REGULATED
DC-DC ULTRA-WIDE INPUT ISOLATED/REGULATED
DC-DC WIDE INPUT NON-ISOLATED/REGULATED
LED DRIVER
IGBT DRIVER
ISOLATION AMPLIFIER MODULE



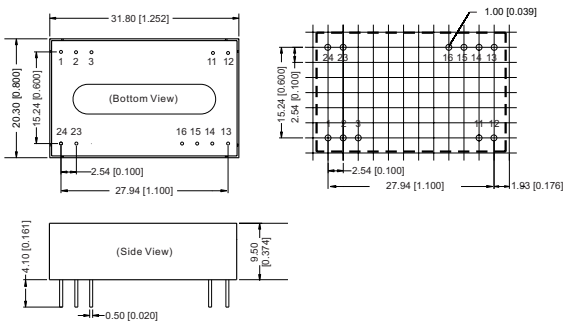
Isolation Amplifier Module

Positive and Negative Signal Amplifier

The T_{AP} series is a high integration and efficiency active isolation amplifier module, with positive and negative signal input and positive signal output. These modules, with a high efficiency micro-power source built-in, can provide energy for internal process circuit and isolation power output for front-end circuit. The product greatly simplifies the design of the user in the applications of three-wire and four-wire, also it improves the using room ratio of PCB. Adopting electromagnetism isolation technology, it is available to keep higher accuracy and extremely lower temperature drift than photocouple isolation. These modules have four-port isolation(input, output, power supply and isolation power out).



PACKAGE INFORMATION AND PIN ASSIGNMENT



Pin	Function
1(Sout-)	Signal output(-)
3(Sout+)	Signal output(+)
11(Sin+)	Signal input(+)
12(Sin-)	Signal input(-)
13(Vout-)	Isolation power out(-)
14(Vout+)	Isolation power out(+)
23(Pin+)	Power supply(+)
24(Pin-)	Power supply(-)
2,15,16(NC)	No function pin

NC: No connection, otherwise the module will be damaged.
Unit: mm
General tolerances: ± 0.25

FEATURES

- High precision(0.1% F.S.)
- High linearity(0.1% F.S.)
- Isolation voltage(2.5KVDC/60S)
- High frequency response
- Low temperature drift(35ppm/°C)
- Industry standard(Operating Temperature Range: -25°C ~ 71°C)
- High reliability(MTBF > 500,000 hours)

ELECTRICAL CHARACTERISTICS

- Power Supply Parameter
 - Power Supply.....(24VDC/15VDC/12VDC) $\pm 5\%$
 - Power Consumption..... $\leq 2W$
 - Power Protection.....Reverse protection
- Isolation Power Output Parameter
 - Output Voltage.....($\pm 15VDC/\pm 12VDC/24VDC$ / $15VDC/12VDC$) $\pm 10\%$
 - Output Current..... $\leq 25mA$
- Input Parameter
 - Input Signal..... $\pm 5V/\pm 10V$
 - Input Impedance..... $\geq 10M\Omega$ (@ max input signal)
 - Overload..... $\leq 15V$
- Output Parameter
 - Output Signal.....0~5V/10V
 - Load Capacity..... $\geq 2K\Omega$ (@ 10V output)

TRANSMISSION CHARACTERISTICS

- Zero Offset.....0.1%F.S.
- Gain Error.....0.1%F.S.
- Temperature Drift.....0.0035%F.S./°C(-25°C~+71°C)

ISOLATION CHARACTERISTICS

- Galvanic Isolation.....Four-port isolation (input, output, power supply and isolation power out)
- Isolation Voltage.....2.5KVDC (Tested for 1minute and leakage current <1mA max, humidity < 70%)(Note: The isolation voltage is 500VDC between isolation power output and input when there is isolation power output)
- Insulation Resistance....100M Ω , 500VDC (Between signal input ,signal output, power supply and isolation power output)

OTHER CHARACTERISTICS

- Ambient temperature.....Operation temperature:-25°C ~ +71°C
Transport and Storage Temperature:-50°C ~ +105°C
- Package.....DIP24
- Weight.....About 10g
- Application environment...No dust, fierce vibration, impulsion and corrosive gas

PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Isolation Power Output	Channels
T5530AP	24V	$\pm 10V$	0~10V	None	1
T5533AP	24V	$\pm 10V$	0~10V	24V	1
T6630AP	24V	$\pm 5V$	0~5V	None	1
T6633AP	24V	$\pm 5V$	0~5V	24V	1

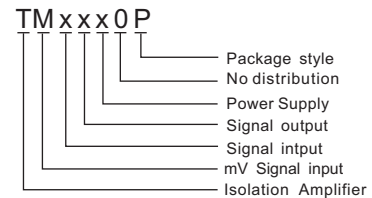
Note: We could also offer customer design for special input and output.

Isolation Amplifier Module

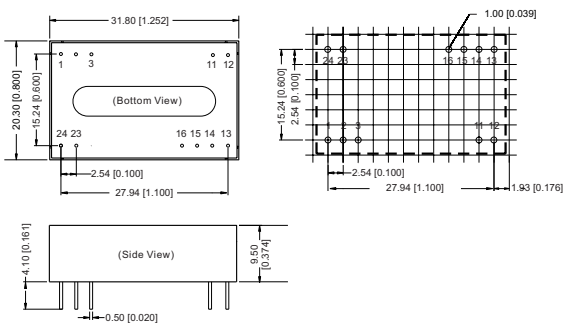


Millivolt-class Signal Amplifier

Millivolt-class signal amplifier can receive the mV-voltage signal input from the field, and transmit a standard output signal to the control room or DCS after isolated. With characteristics of high output accuracy, good linearity and low temperature drift, it needs an independent power supply. The module has three-port isolation(input, output and power supply), and the isolation voltage between them is up to 2.5KVDC.



PACKAGE INFORMATION AND PIN ASSIGNMENT



Pin	Function
1(Sout-)	Signal Output-
3(Sout+)	Signal Output+
11(Sin+)	Input+
12(Sin-)	Input-
23(Vin+)	Power supply+
24(Vin-)	Power supply-
Others	NC

NC: No connection, otherwise the module will be damaged.
Unit: mm
General tolerances: ± 0.25

FEATURES

- High precision(0.1% F.S.)
- High linearity(0.1% F.S.)
- Isolation voltage(2.5KVDC/60S)
- High frequency response
- Low temperature drift(35ppm/°C)
- Industry standard(Operating Temperature Range: -25°C ~ 71°C)
- High reliability(MTBF>500,000 hours)

ELECTRICAL CHARACTERISTICS

- Power Supply Parameter
 - Power Supply.....(24VDC/15VDC/12VDC) $\pm 5\%$
 - Power Consumption..... $\leq 2W$
 - Power Protection.....Reverse protection
- Input Parameter
 - Input Signal.....0~10/20/30/50/75/100mV
 - Input Impedance..... $\geq 10M\Omega$
 - Overload..... $\leq 10V$
- Output Parameter
 - Output Signal..... 0~5V/10V
 - Load.....>2K Ω (@ voltage output is max)

TRANSMISSION CHARACTERISTICS

- Zero Offset.....0.1%F.S.
- Gain Error.....0.1%F.S.
- Temperature Drift.....0.0035%F.S./°C(-25°C~+71°C)

ISOLATION CHARACTERISTICS

- Galvanic Isolation..... Three port Isolation(input, output, power supply)
- Isolation Voltage.....2.5KVDC(Tested for 1 minute ,leakage current <1mA, humidity <70% RH)
- Insulation Resistance..... 100M Ω , 500VDC (Between signal input ,signal output and power supply)

OTHER CHARACTERISTICS

- Ambient temperature.....Operation temperature:-25°C ~ +71°C
Transport and Storage Temperature:-50°C ~ +105°C
- Package.....DIP24
- Weight.....About 10g
- Application environment: No dust, fierce vibration, impulsion and corrosive gas.

PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Channels
TM4530P	24V	0~50mV	0~10V	1
TM4630P	24V	0~50mV	0~5V	1
TM5530P	24V	0~75mV	0~10V	1
TM5630P	24V	0~75mV	0~5V	1
TM6530P	24V	0~100mV	0~10V	1
TM6630P	24V	0~100mV	0~5V	1

Note: We could also offer customer design for special input and output.

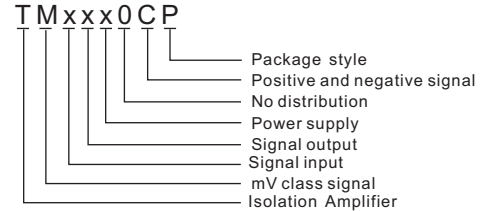
AC-DC SERIES
DC-DC FIXED INPUT ISOLATED/UNREGULATED
DC-DC FIXED INPUT ISOLATED/REGULATED
DC-DC WIDE INPUT ISOLATED/REGULATED
DC-DC ULTRA-WIDE INPUT ISOLATED/REGULATED
DC-DC WIDE INPUT NON-ISOLATED/REGULATED
LED DRIVER
IGBT DRIVER
ISOLATION AMPLIFIER MODULE



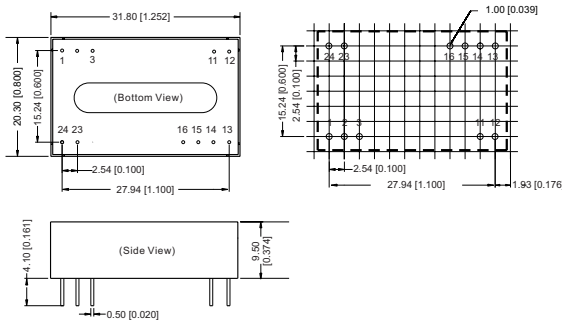
Isolation Amplifier Module

Millivolt-class Positive and Negative Signal Amplifier

The TM_CP series of isolation amplifiers modules has a millivolt-class positive and negative signal input and positive and negative signal output. These modules, with a high efficiency micro-power source built-in, can power signal process circuit. In the three-wire and four-wire transmitter applications, our products make customers design simple and helpfully improve the room-using ratio of PCB. Adopting electromagnetism isolation technology, it is available to keep higher accuracy and extremely lower temperature drift than photocouple isolation. These modules have three-port isolation (input, output and power supply), and the isolation voltage between them is up to 2.5KVDC.



PACKAGE INFORMATION AND PIN ASSIGNMENT



Pin	Function
1(Sout-)	Signal output(-)
2(NC)	No function pin
3(Sout+)	Signal output(+)
11(Sin+)	Signal input(+)
12(Sin-)	Signal input(-)
13,14(NC)	No function pin
15,16(NC)	No function pin
23(Pin+)	Power supply(+)
24(Pin-)	Power supply(-)

NC: No connection, otherwise the module will be damaged.
Unit: mm
General tolerances: ± 0.25

FEATURES

- High precision(0.1% F.S.)
- High linearity(0.1% F.S.)
- Isolation voltage(2.5KVDC/60S)
- High frequency response
- Low temperature drift(35ppm/°C)
- Industry standard(Operating Temperature Range: -25°C ~ 71°C)
- High reliability(MTBF>500,000 hours)

ELECTRICAL CHARACTERISTICS

- Power Supply Parameter
 - Power Supply.....(24VDC/15VDC/12VDC) $\pm 5\%$
 - Power Consumption..... $\leq 1W$
 - Power Protection.....Reverse protection
- Input Parameter
 - Input Signal..... $\pm (10/20/30/50/75/100)mV$
 - Input Impedance..... $\geq 10M\Omega$ (@ max input signal)
 - Overload..... $\leq 10V$
- Output Parameter
 - Output Signal..... $\pm 5V/\pm 10V$
 - Load Capacity..... $\geq 2K\Omega$ (@ $\pm 10V$ output)

TRANSMISSION CHARACTERISTICS

- Zero Offset.....0.1%F.S.
- Gain Error.....0.1%F.S.
- Temperature Drift..... $\geq 50mV: 0.0035\%F.S./^{\circ}C$
 $< 50mV: 0.0050\%F.S./^{\circ}C(-25^{\circ}C \sim +71^{\circ}C)$

ISOLATION CHARACTERISTICS

- Galvanic Isolation.....Three-port isolation (Input, output and power supply)
- Isolation Voltage.....2.5KVDC(Tested for 1 minute ,leakage current $< 1mA$, humidity $< 70\% RH$)
- Insulation Resistance...100M Ω , 500VDC (Between signal input ,signal output and power supply)

OTHER CHARACTERISTICS

- Ambient temperature.....Operation temperature:-25°C ~ +71°C
Transport and Storage Temperature:-50°C ~ +105°C
- Package.....DIP24
- Weight.....About 10g
- Application environment: No dust, fierce vibration, impulsion and corrosive gas

PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Channels
TM4530CP	24V	$\pm 50mV$	$\pm 10V$	1
TM4630CP	24V	$\pm 50mV$	$\pm 5V$	1
TM5530CP	24V	$\pm 75mV$	$\pm 10V$	1
TM5630CP	24V	$\pm 75mV$	$\pm 5V$	1
TM6530CP	24V	$\pm 100mV$	$\pm 10V$	1
TM6630CP	24V	$\pm 100mV$	$\pm 5V$	1

Note: We could also offer customer design for special input and output.