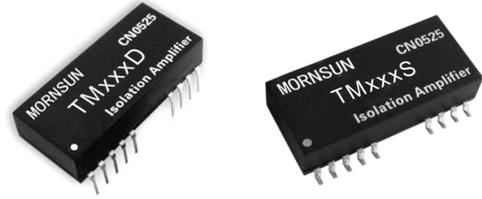


mV-LEVEL SIGNAL AMPLIFIER



DESCRIPTION

mV-level amplifier can receive the mV-voltage signal input from the scene, and transmit a standard output signal to the control room or DCS through isolation. With characteristics of high output accuracy, good linearity and low temperature drift, it needs an independent power supply, and three port Isolation among input, output and power supply.

PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Isolation Power Output	Channels
TM663D/S	24V	100mV	0-5V	None	1
TMS63D/S-24	24V	24mV	0-5V	None	1
TM6S3AD-3	24V	±100mV	0-3V	None	1

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

FEATURES

- Three port Isolation(input, output, power supply)
- High accuracy (0.1% F.S.)
- High linearity (0.1% F.S.)
- Isolation voltage(3000VDC/60S)
- High frequency response
- Low temperature drift(35PPM/°C)
- Industry class(Operation temp.: -25°C to 71 °C)
- High reliability(MTBF>500,000 hours)

ELECTRICAL CHARACTERISTICS

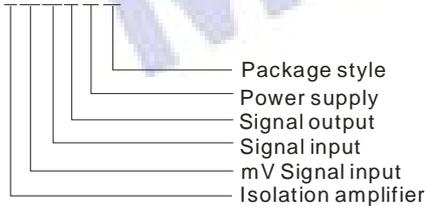
Power Supply Data	Power Supply	(Nominal Power Supply)±5%
	Power Dissipation	≤2W
	Power Protection	Reverse protection
Input Data	Input Impedance	≥10 MΩ
	Overload	≤15V
Output Data	Load	> 1KΩ (Vout=max)
		≤500Ω (Iout=max)

TRANSMISSION CHARACTERISTICS

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

MODEL SELECTION

TMXXXD



ISOLATION CHARACTERISTICS

Galvanic Isolation	Three port Isolation(input, output, power supply)
Isolation Voltage	3KVDC(Tested for 1minute and 1mA max, humidity < 70%)
Insulation Resistance	100MΩ, 500VDC (Among signal input ,signal output and power supply)

OTHER CHARACTERISTICS

Ambient temperature	Operation temperature:-25°C to +71°C
	Transport and Storage temperature:-50°C to +105°C
Package	DIP24/SOIC24
Weight	About 10g
Application environment	No dusts, gases of fiercely vibration, impulsion or gases that may erode to the components surrounded

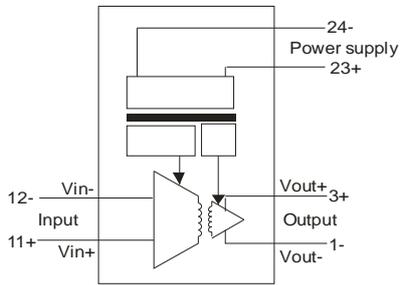
Note:

- 1 .All specifications measured at TA=25°C, humidity<75%, nominal input voltage and rated output load unless otherwise specified.
- 2 .See application circuits for more details.

MORNSUN Science & Technology co.,Ltd.

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 Fax:86-20-38601272
[Http://www.mornsun-power.com](http://www.mornsun-power.com)

SCHEMATIC DIAGRAM



APPLICATION NOTE

1. Please read instruction book carefully before using the product. If you have any question, please contact with our technical support.
2. Please don't install in the dangerous zone.
3. The power supply is direct voltage. 220V alternating current is forbidden.
4. Don't divide the product privately in case the equipments ineffective or go wrong.

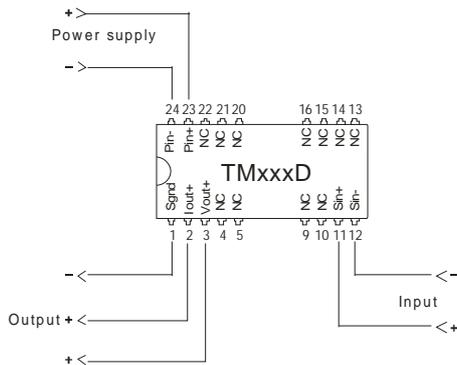
AFTER SERVICE

1. Products are carefully inspected and controlled before going out from our factory. If they operated abnormally or there were anything wrong in the inner parts, please contact with our agents near you or technical support in our company as soon as possible.
2. 3 years warranty since the delivery date. During the period of quality guarantee, our company will repair or change free of charge if product has any quality problem in the process of normally using.

APPLICATION CIRCUITS

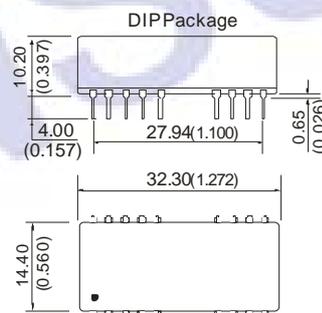
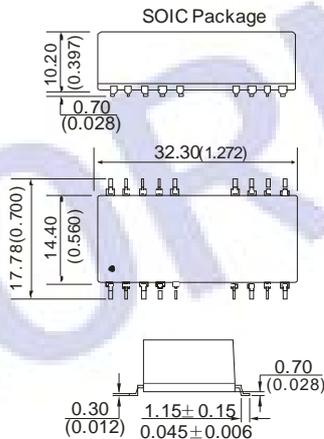
See A GUIDE TO INSTRUMENTATION ISOLATION AMPLIFIERS for more detail.

APPLICATION CIRCUIT DIAGRAM

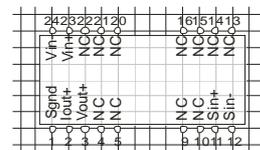
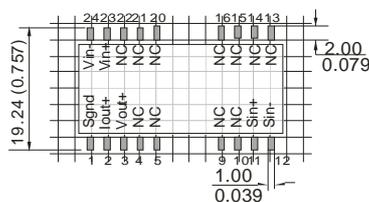


PACKAGING SIZE AND TERMINAL DESCRIPTION

First Angle Projection



RECOMMENDED FOOTPRINT
Top view, grid: 2.54mm (0.1inch)
diameter: 1.00mm (0.039 inch)



FOOTPRINT DETAILS

Pin	Function	Pin	Function
1(Sgnd)	Output-	23(Vin+)	Power supply+
2(lout+)	Output current-	24(Vin-)	Power supply-
3(Vout+)	Output voltage+	Others	NC
11(Sin+)	Input+		
12(Sin-)	Input-		

NC: No connection

Note:

Unit: mm (inch)

Pin section: 0.50*0.30mm (0.020*0.012inch)

Pin tolerances: ±0.10mm (±0.004inch)

General tolerances: ±0.25mm (±0.010inch)