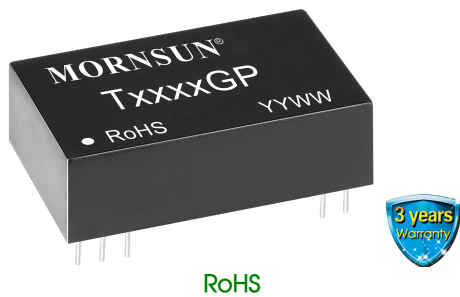


Active high precision output signal conditioning module **FEATURES**



- Input, output and power supply are mutually isolated from each other
- High accuracy (0.1% F.S.)
- Isolation voltage: 2.5kVDC/60s
- Industrial grade operating temperature: -40°C to +85°C
- Low ripple & noise: 30mVpp (.typ)
- ESD protection (IEC/EN61000-4-2 Contact ±4kV perf. Criteria B)

TxxxGP series signal conditioning module (also called isolated transmitter), are the analog signal isolated modules with preceding current/voltage signal input and post Positive and negative voltage signal output. The electromagnetism isolated technology of the product features that the input, output, power supply, power distribution are isolated from each other, which can completely replace the traditional linear optocoupler isolation, also, it has superior temperature-coefficient characteristics, linearity and precision. TxxxP Series are widely applied in PLC, DCS, MCU and other signal isolation & conversion.

Selection Guide

PART NO.	Power Supply input Typ. (VDC)	Input Signal	Output Signal	Isolation Power Output (VDC)
T6530GP	24V	0-5V	-10V to +10V	None

Notes: Customization products are available if required.

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit	
Power Input	Input Voltage	Typ.-5%	Typ.	Typ.+5%	VDC	
	Input Power	Single output full load	--	--	2.0	W
	Power Supply Protection		Anti-reverse protection			
Signal Input	Input Signal	See selection guide				
	Input Impedance	In case of max. input of voltage signal	10	--	--	MΩ
	Overload		--	--	15	V

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit	
Signal Output	Output signal	See selection guide				
	Load capacity	In case of max. input of voltage signal	2	--	--	kΩ
	Ripple & noise	20MHz Bandwidth	--	30	--	mVp-p

Transmission Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Signal Precision	Ta=25°C	-0.1%F.S.	--	+0.1%F.S.	--
Power Regulation	(Typ. value of power supply input)±5%	-0.05%F.S.	--	+0.05%F.S.	--
Load Regulation	Change between no-load and full load (2kΩ-∞)	-0.05%F.S.	--	+0.05%F.S.	--
Temperature Coefficient	Operating temperature range of -40 to +85°C	--	--	100	PPM/°C
Band Width		2	--	--	kHz
Response Time		--	--	5	ms

General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Electric Isolation		Input, output and power supply are mutually isolated from each other			
Isolation Voltage	Testing for 1 minute, leakage current <1mA, humidity <70%	2.5	--	--	kVDC
Insulation Resistance	500VDC	100	--	--	MΩ
Operating Temperature		-40	--	+85	°C
Transportation and Storage Temperature		-40	--	+85	°C
Application Environment		The presence of dust, fierce vibration,impulsion and corrosive gas may cause damage to the product.			

Physical Specifications

Casing Material	Black flame-retardant heat-proof plastic
Package	DIP24
Weight	11.5g(Typ.)
Cooling Method	Free air convection

EMC Specifications

EMS	ESD	IEC/EN61000-4-2	Contact ±4kV	perf. Criteria B
	EFT	IEC/EN61000-4-4	Power supply port ±2kV (see Fig. 2 for recommended circuit)	perf. Criteria B
		IEC/EN61000-4-4	Other ports ±1kV (see Fig. 2 for recommended circuit)	perf. Criteria B
	Surge	IEC/EN61000-4-5	Power supply port ±1kV (line to line) (see Fig. 2 for recommended circuit)	perf. Criteria B
		IEC/EN61000-4-5	Other ports ±1kV (line to ground) (see Fig. 2 for recommended circuit)	perf. Criteria B

Application Precautions

1. Please read the instructions carefully before use; contact our technical directly if you have any problem.
2. Do not use the product in hazardous areas.
3. use DC power supply for the product and 220V AC power supply is prohibited.
4. Do not dismantle and assemble the product without permission to avoid failure or malfunction of equipment.
5. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C, humidity<75% with power input nominal voltage and rated signal output full load.

After-sales service

1. Ex-factory inspection and quality control have been strictly conducted for the product; if there occurs abnormal operation or possibility of failure of internal module, please contact the local representative or our technical support.
2. The warranty period for the product is 3 years as calculated from the date of delivery. If any quality problem occurs under normal use within the warranty period, the product can be repaired or changed for free.

Applied circuit

Please refer to Isolated Transmitter application notes.

Design Reference

1. Wiring diagram for product application

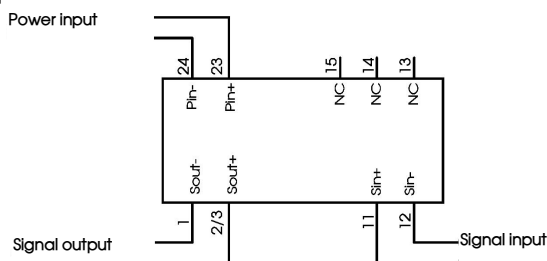


Fig. 1

2. EMC solution-recommended circuit

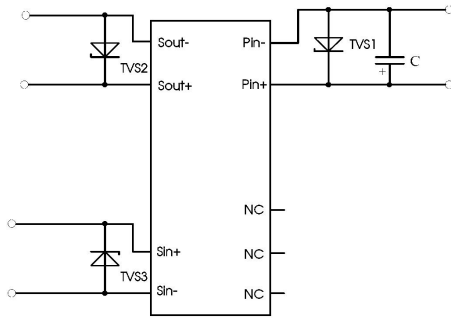
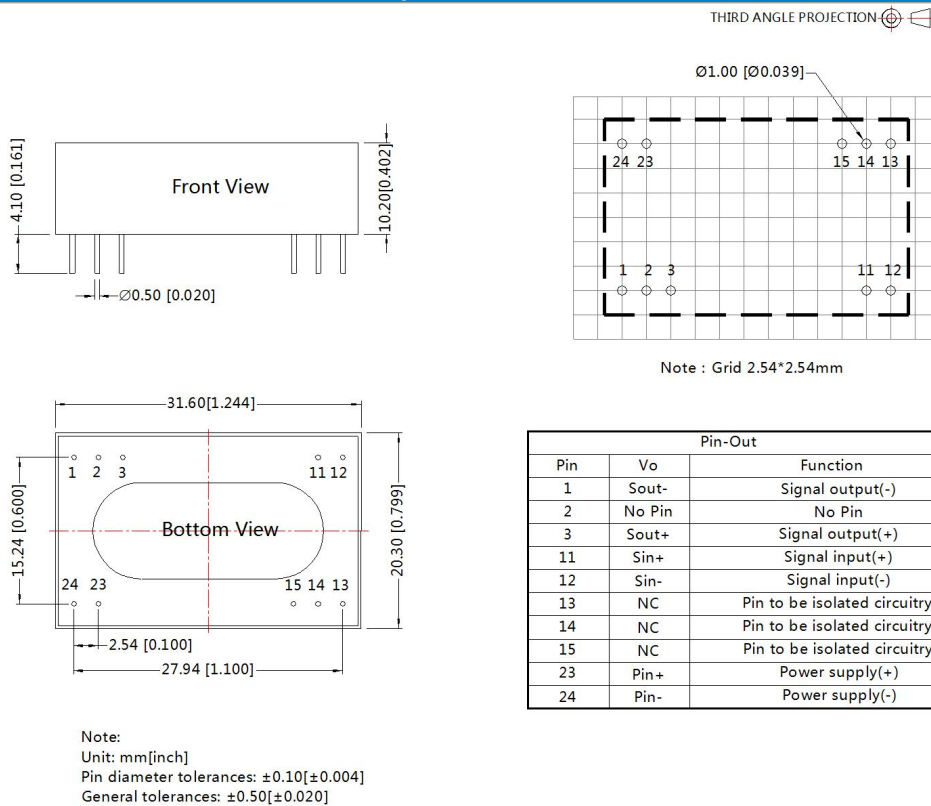


Fig. 2

Components	Recommended parameters
TVS1	SMCJ30A
TVS2	SMBJ15A
TVS3	SMBJ15A
C	220uF/35V

3. For more information please find the application notes on www.mornsun-power.com

Dimensions and Recommended Layout



Notes:

1. Packing information please refer to Product Packing Information which can be downloaded from www.mornsun-power.com. Packing bag number: 58210008;
2. All index testing methods in this datasheet are based on our Company's corporate standards;
3. The performance parameters of the product models listed in this manual are as above, but some parameters of non-standard model products may exceed the requirements mentioned above. Please contact our technicians directly for specific information;
4. We can provide product customization service;
5. Products are related to laws and regulations: see "Features" and "EMC".
6. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

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