

PWM Pulse Width Signal Isolated Transmitter

ISO D-P-O-Q series

Features:	Applications:
<ul style="list-style-type: none"> ● Sensitive distinguish, Rapid response ● Extremely high linearity in full measuring range (Non-linearity<0.2%) ● Power source/input signal/output signal 3KVDC isolation. ● Power : 5V/12V/15V/24V DC supply ● Small size, low cost, SIP-12, comply with UL94V-0 standard anti-fire package ● Strong spatial interference characteristics of anti-EMC electromagnetic interference & high-frequency signal. ● Industrial Temperature range: - 20℃ ~ + 50℃ 	<ul style="list-style-type: none"> ● Convert the Pulse Width Modulated PMW signal isolation to the corresponding 4-20mA or 0-10V analog signal. ● PWM signal transfer/isolation/long-term transmission ● Industrial PLC control and inverter control ● Ground interference control ● Automatic selection control of industrial boiler furnace.

Introduction:

Sunyuan ISO D-P-O series PWM pulse transmitter is a duty cycle of the PWM pulse width modulated square wave signal through the isolation convert hybrid integrated circuits for analogue standard signals. The product is integrated on the same chip with high isolation DC / DC power supply circuit, the PWM drive circuit, high-speed converter and signal amplification and conversion circuits, etc., especially suitable for industrial process instrumentation, signal isolation transmitter. Currently widely used in the industrial field in the remote control.

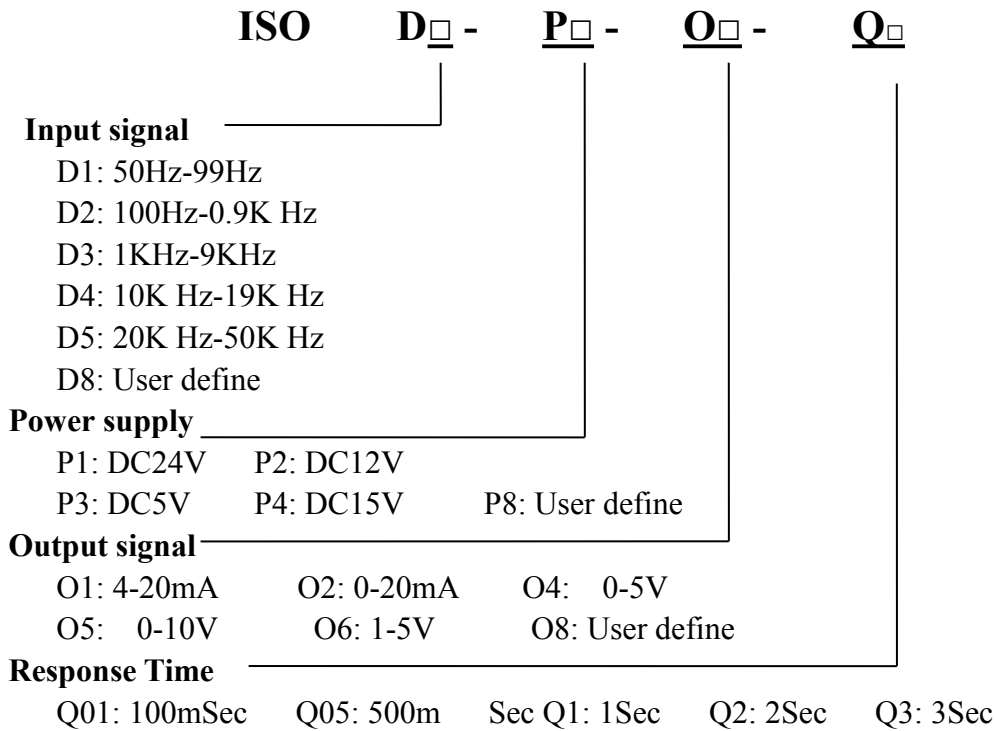
ISO D-P-O internal integration of high efficiency DC-DC isolated power supply to the IC internal input conditioning circuit and output conditioning circuits, the conversion circuitry. SMD process structures and new isolation technologies allow the device to achieve: power, signal input / output 3000VDC isolation. And meet the industrial wide temperature, humidity, vibration adverse work environment requirements.

Max Work Range:

Beyond the work range, will leads to the permanent damage of the product.

Continuous isolation violate:	3000VDC
Power supply voltage input range:	±10%
Pin welding temperature (10 secs):	+300℃

Product Model Selection:



Product Model Selection Example:

E.g.1: Input: 20KHz ; Output: 4-20mA; 100mSec response time; Power supply: 24V;
corresponding Model: ISO D5-P1-O1-Q1

E.g.2: Input: 50Hz ; Output: 0-5V; 3Sec Response time; Power supply: 12V;
corresponding Model: ISO D1-P2-O4-Q3

General Parameters:

Precision ----- 0.5%
 Power supply----- DC5V,12V,24V, ±10%
 Work temperature----- -20 ~ +70°C
 Work humidity----- 10 ~ 90%
 (No condensation)
 Storage temperature----- -20 ~ +70°C
 Storage Humidity----- 10 ~ 95%
 (No condensation)

Return difference ----- < 0.5%
 Isolation ----- signal input/output/Power supply
 Insulation resistance ----- ≥20MΩ
 Withstand voltage----- signal input/output/Power supply
 3000VDC, 50Hz, 1min, Leakage current 1mA
 Impact resistance----- 3K, 1.2/50us(peak)

Technical Parameters:

Item		Test Conditions	Min.	Standard Value	Max.	Unit
Isolation Voltage		1min		3000		VDC
Temperature drift		-20℃ ~ +70℃		100		ppm/℃
Non-linearity				0.1%	0.2%	%FSR
Signal input	frequency		50		50K	Hz
	Duty ratio		0		100	%
Input impedance				10	100	KΩ
Signal output	voltage		0	10	12	V
	current		0		20	mA
Load ability	voltage	V _{OUT} =10V	*	2	*	KΩ
	current		*	350	*	Ω
Signal output ripple wave		Not filtering		10	20	mV _{RMS}
Power supply	voltage	User define	3.3	12	24	VDC
	Power dissipation			0.5	1	W
Work environment temperature			-20		70	℃
Storage temperature			-20		70	℃

* Remark: Output voltage signal or current signal with load capacity requirements can be customized.

PIN Definition :

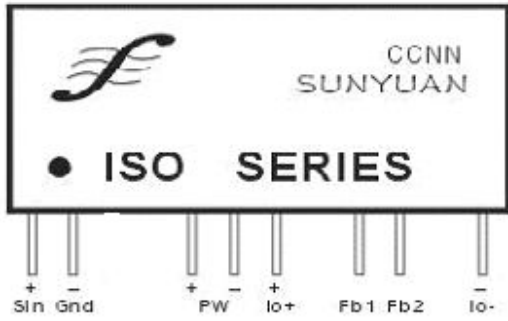
(1) Current output type pin discription: SIP 12

1	2	3	4	5	6	7	8	9	10	11	12
信号输入 Sin+	信号输入 GND	NC	辅助电源 PW+	辅助电源 PW-	NC	信号输出 Io+	NC	增益调节 Adj	增益调节 Adj	NC	信号输出 Io-

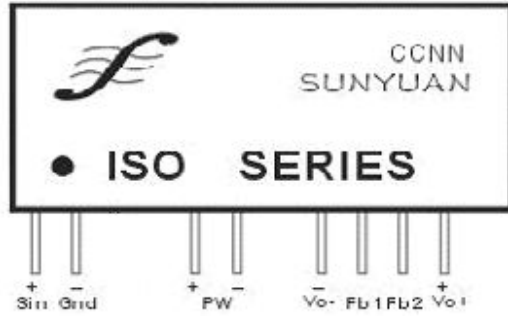
(2) Voltage output type pin discription: SIP 12

1	2	3	4	5	6	7	8	9	10	11	12
信号输入 Sin+	信号输入 GND	NC	辅助电源 PW+	辅助电源 PW-	NC	NC	信号输出 GND1	增益调节 Adj	增益调节 Adj	信号输出 Vo+	NC

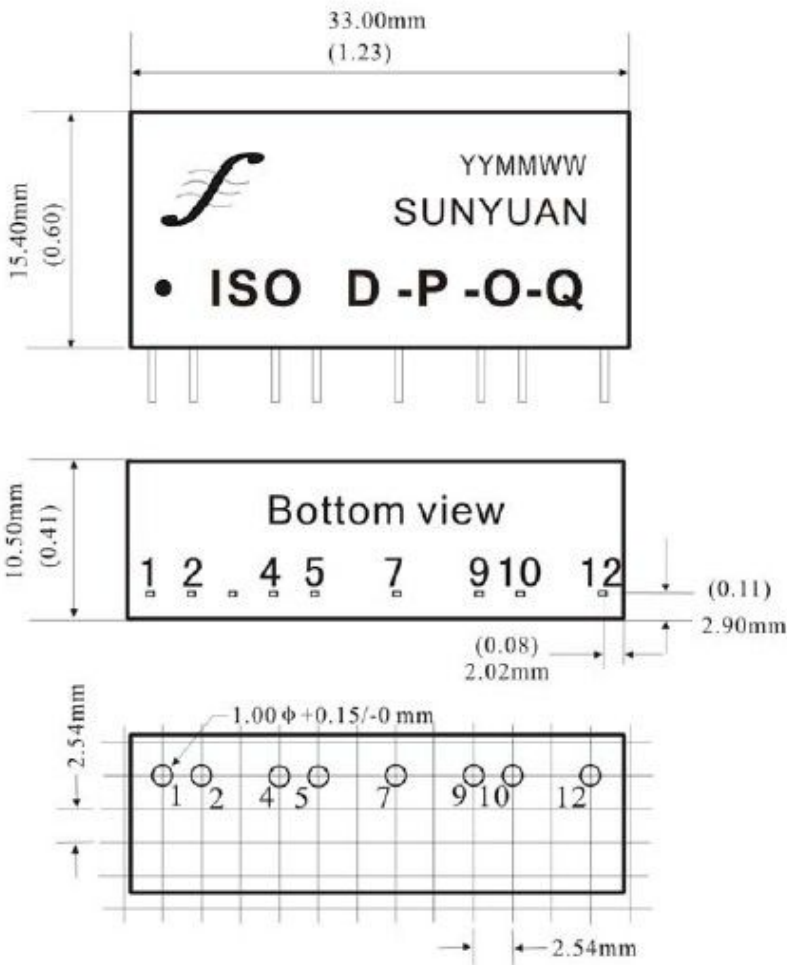
Current output



Voltage output



Dimension and External View:



ISO9001:2008



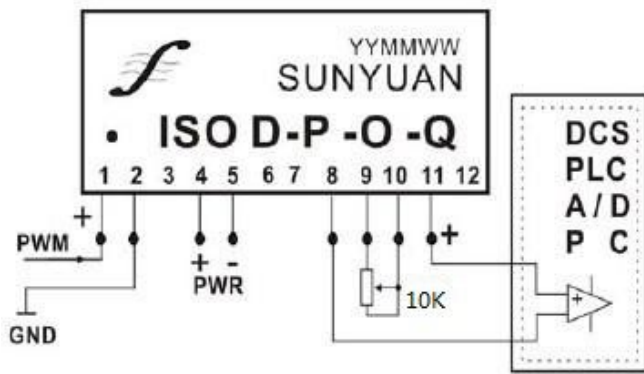
CE RoHS

ISO9001:2008



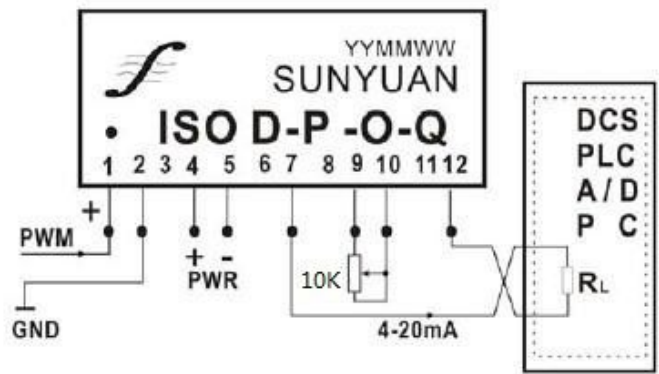
CE RoHS

Application Examples



PWM 输入/电压输出 (D/V转换)

PWM Input/Voltage Output (D/V)



PWM 输入/电流输出 (D/I转换)

PWM Input/Current Output(D/I)

PWM Pulse Width Signal Isolated Transmitter

ISO D-P-O-Q series

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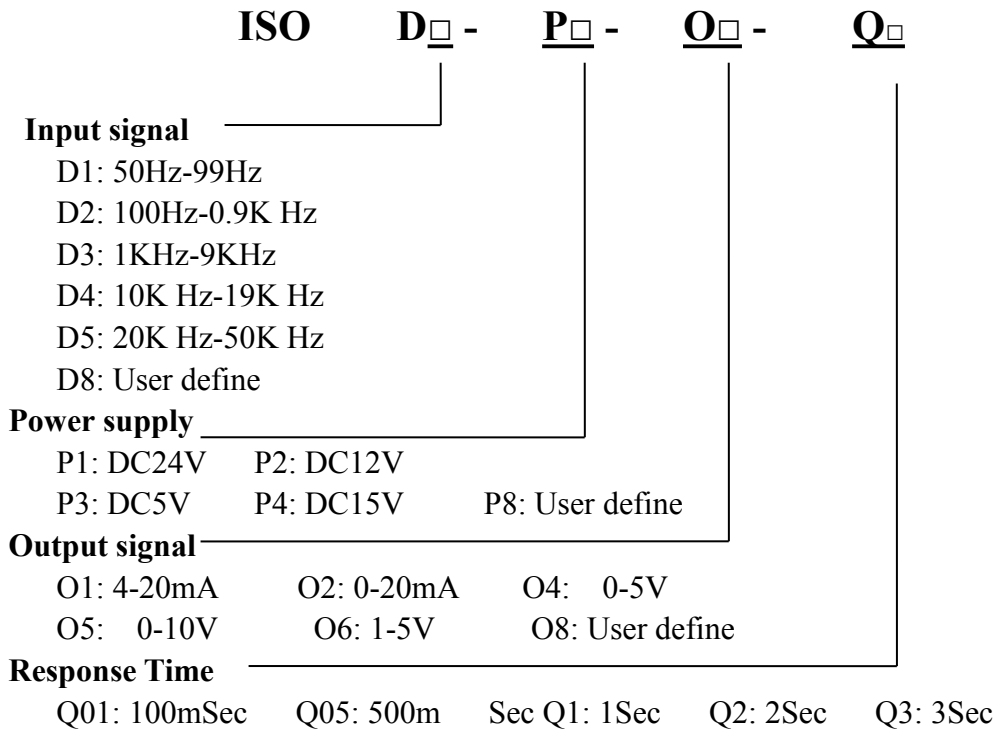
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Signal output	voltage		0	10	12	V
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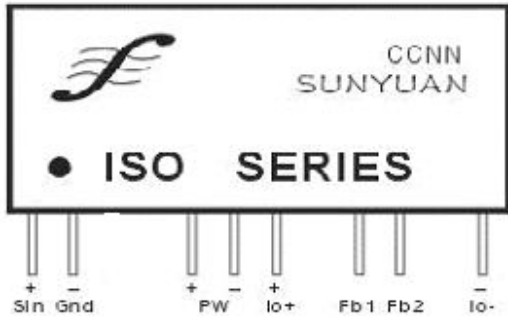
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1	2	3	4	5	6	7	8	9	10	11	12
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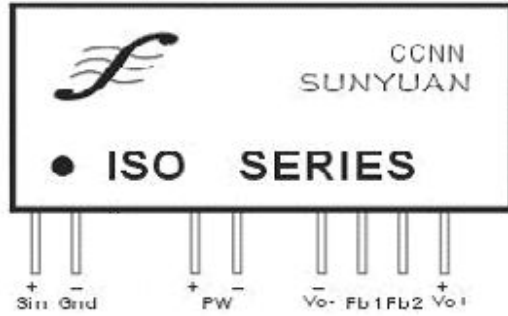
(2) Voltage output type pin discription: SIP 12

1	2	3	4	5	6	7	8	9	10	11	12
信号输入 Sin+	信号输入 GND	NC	辅助电源 PW+	辅助电源 PW-	NC	NC	信号输出 GND1	增益调节 Adj	增益调节 Adj	信号输出 Vo+	NC

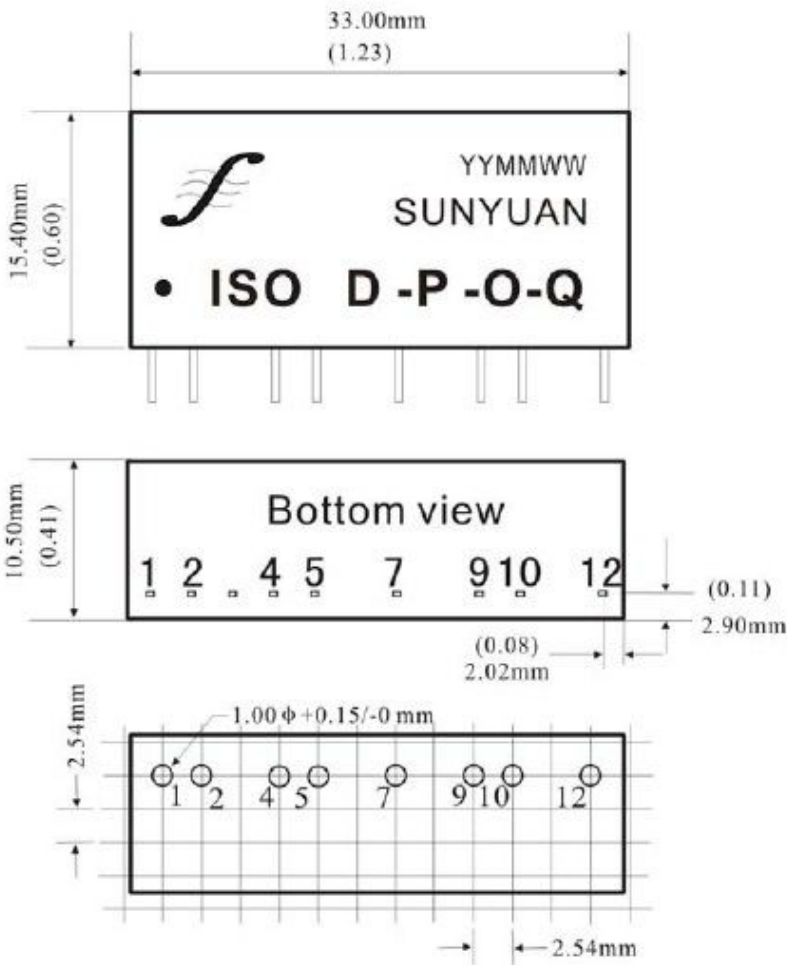
Current output



Voltage output



Dimension and External View:



ISO9001:2008



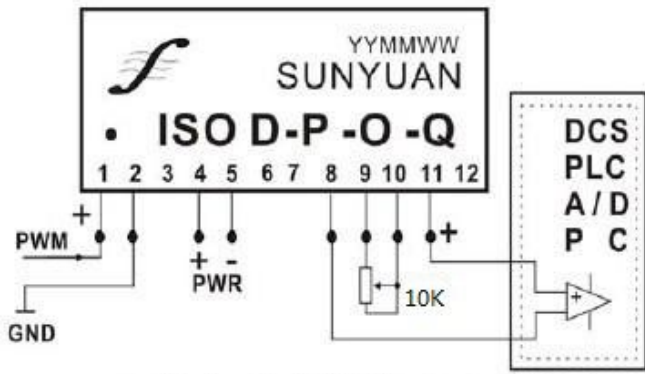
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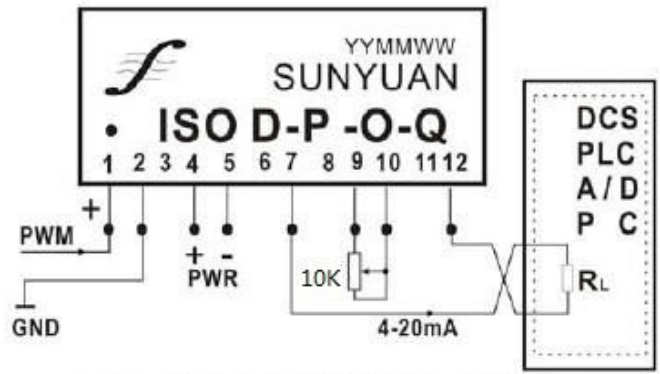
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Application Examples



PWM 输入/电压输出 (D/V转换)

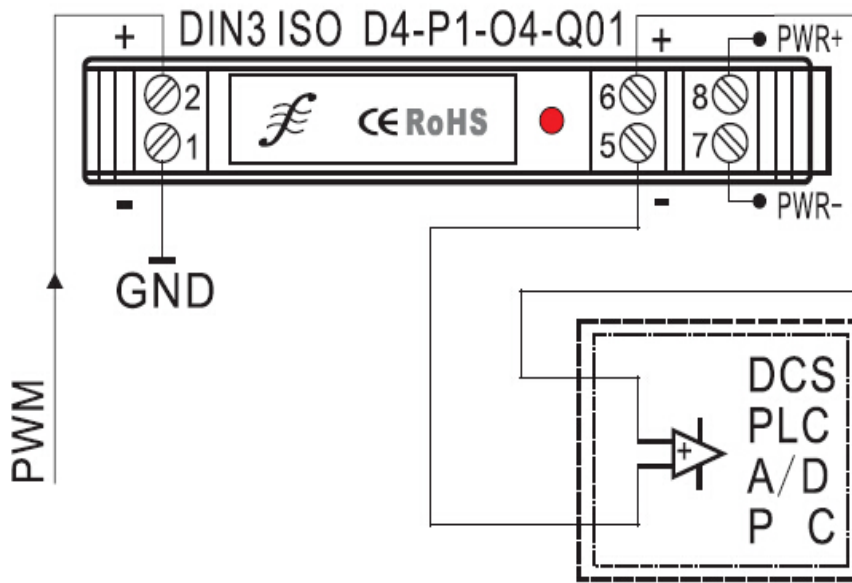
PWM Input/Voltage Output (D/V)



PWM 输入/电流输出 (D/I转换)

PWM Input/Current Output(D/I)

Small Size DIN Rail-mounted Type:



DIN3 ISO D-P-O-Q接线图

