

3-input- 3-output analog voltage (current) signal isolation transmitter

Features:

- ◆ Small size, low cost, international standards DIN35mm rail mounting
- ◆ Four-port isolation (input, output, power supply and Mutual isolation between channels)
- ◆ Passed CE Certificate
- ◆ High accuracy (0.1% F.S, 0.2% F.S)
- ◆ Full-scale range (<0.2% F.S)
- ◆ High isolation voltage (2500VDC/60S)
- ◆ Low temperature drift (35PPM/°C)
- ◆ Wide temperature range (-45~+85°C)
- ◆ High reliability (MTBF>50 Wan hour)
- ◆ Power supply (5VDC/12VDC/15VDC/24VDC multiple choice)
- ◆ International standard signal input and output (0~5V/0~10V/1~5V/4 ~ 20mA/0~20mA, etc.)

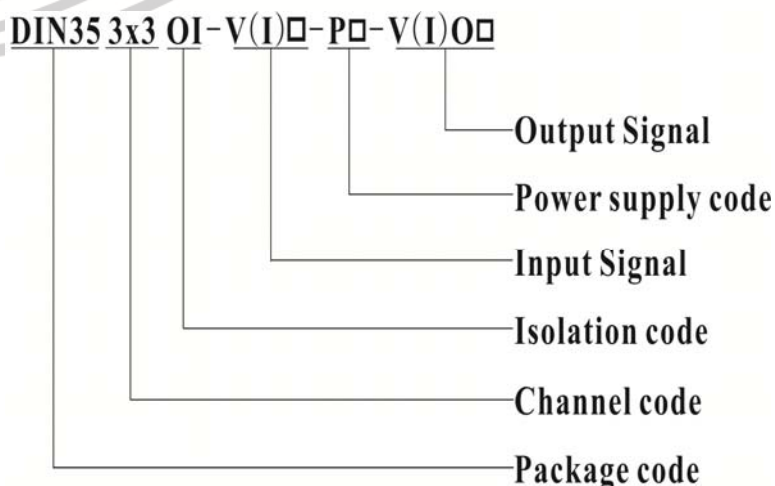
Application:

- ◆ DC current/voltage signal isolation, conversion and amplification
- ◆ Industrial field signal isolation and long distance transmission without distortion
- ◆ Analog signal ground interference suppression and analog isolation ,acquisition ,conversion, and long-distance transmission
- ◆ 4~20mA/0~20mA/0~5V/0~10V sensor signal isolation, transformation and long-distance transmission
- ◆ Instrumentation and sensor signal transceiver
- ◆ Power isolation monitoring industrial field
- ◆ Power monitoring, medical equipment isolation barrier
- ◆ Overcome interference between instrumentation equipment

General Description:

JIE Sheng da Technology DIN35 3x3 OI active 3-in-3-out analog unidirectional signal isolation transmitter is a signal conditioner with electrical insulation between input and output, it can receive a variety of analog signal from the field instrument, and transmit a standard output signal or user-specified special signal to the control room、PLC、PC or DCS. The product is isolated between power supply, input and output, the isolated voltage between them is up to 2500VDC .It is widely used in the power isolation, monitoring and control of industrial site, power monitoring, medical electronic equipment, analog signal isolation and acquisition etc. Adopting optocoupler isolation technology, compared with the electromagnetism isolation transmitter has a stronger anti-EMC electromagnetic interference ,it is available to keep free gain adjustment and zero adjustment ,low temperature drift and good linearity, suitable for using vibration, damp industrial field, the international standard DIN35mm rail mounting, user-friendly installation.

Selections and Definitions:





Product Selection Parameter List:						
DIN35	3x3	OI	V(I)x	Px	V(I)Ox	Detailed description
Package code						Standard DIN 35mm Package
Channel code						3-input-3-putput
Isolation code						Optocoupler isolation
signal input code:		Power supply code:		output signal code:		
Voltage(VDC)	Current(mA)	Power(VDC)		Current (mA)	Voltage(VDC)	
V1: 0~5V	I1: 0~1mA	P1: 24VDC		IO1: 4~20mA	VO4: 0~5V	
V2: 0~10V	I2: 0~10mA	P2: 15VDC		IO2: 0~20mA	VO5: 0~10V	
V3: 0~75mV	I3: 0~20mA	P3: 12VDC		IO3: -----	VO6: 1~5V	
V4: 0~2.5V	I4: 4~20mA	P4: 5VDC				
V(I)ud: User-defined		Pud: User-defined		V(I)Oud: User-defined		
Note1: When ordering ,please determine input、 output and power , special can customize						

Electrical Characteristics:

Signs	Item	Test condition	Min	Type	Max	Units	
Isolation characteristics	Isoltion voltage	AC,50Hz,tested for 1 minute, humidity<70% leakage current < 1mA,)		2500		V(rms)	
Transmission characteristics	Gain			1		V/V	
	Gain drift			100		ppm/°C	
	Non-linearity			0.1	0.2	%FSR	
Input characteristics	Input offset voltage			2	5	mV	
	Input impedance	voltage	0.3	1		M	
		current			250	1000	Ω
Output characteristics	Signal output	voltage	0		10	V	
		current	0		20	mA	
	Load capacity	voltage	Vout=10V		2		kΩ
		current		0	350	650	Ω
	Frequency Response	-3DB		1		KHz	
	Response Time			≤ 1		mS	
	Signal output ripple	Unfiltered			10	20	mVRMS
	Signal voltage drift	-45~+85°C operating temperature				0.2	mV/°C
Power Supply input characteristics	Power supply	voltage	3.3	12	24	VDC	
		Power		0.5	1	W	
		Range	-10		+10	%	
	operating temperature		-45		85	°C	
	storage temperature		-55		105	°C	
	weight				137	g	
	Note:	normal load≤350Ω,if requiring load is 650Ω, Please note when ordering					

Selection Example:

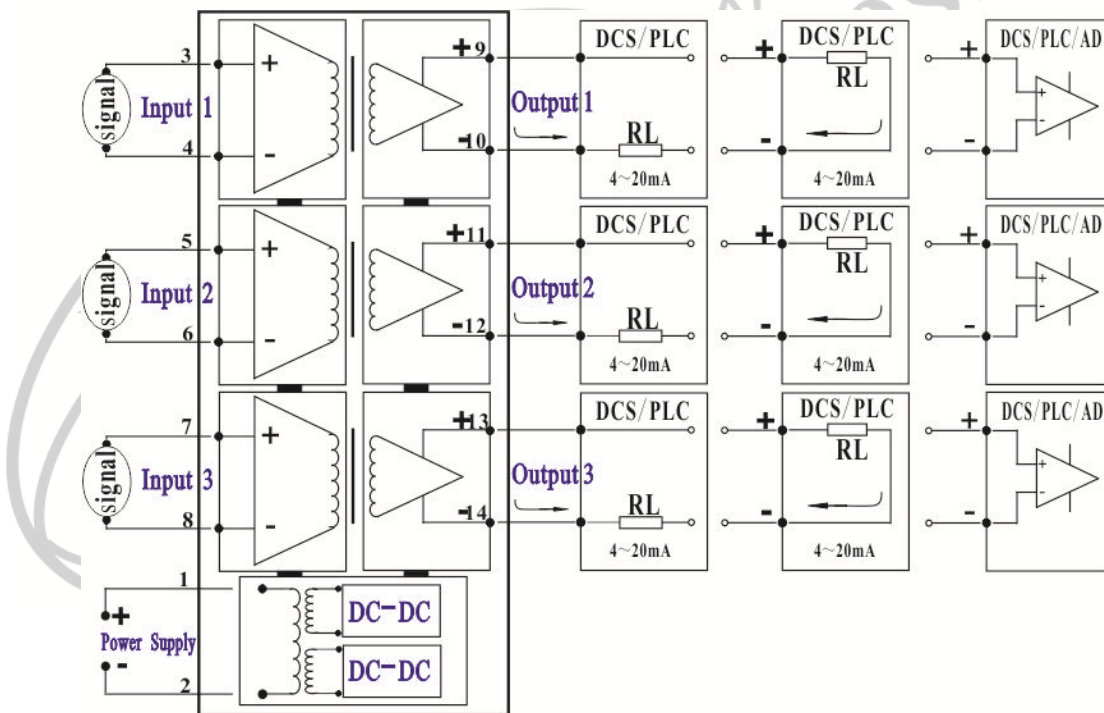
Example 1: input 1: 0-20mA; input 2: 0-20mA; input 3: 0-20mA; output 1:4-20mA; output 2:4-20mA; output 3:4-20mA; power supply:24VDC; model: DIN35 3x3 OI-I3-P1-IO1

Example 2: input 1: 0-5VDC; input 2: 0-5VDC; input 3: 0-5VDC; output 1:0-5VDC; output 2:0-5VDC; output 3:0-5VDC; power supply:24VDC; model: DIN35 3x3 OI-V1-P1-VO4

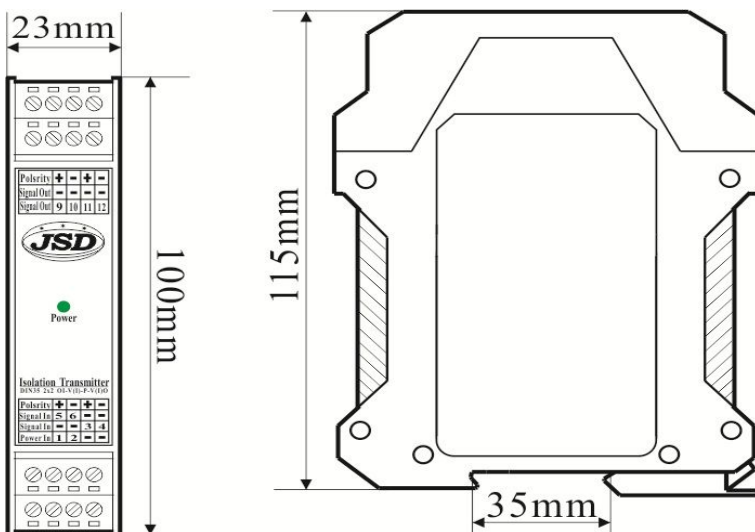
Pins function description :

Signal types	Pin	Function	Pin	Function	Storage
3-in-3-out	1	Power supply In +	9	Signal Output + 1	Standard DIN35 Rail mounting
	2	Power supply In -	10	Signal Output - 1	
	3	Signal Input+ 1	11	Signal Output + 2	
	4	Signal Input- 1	12	Signal Output - 2	
	5	Signal Input+ 2	13	Signal Output + 3	
	6	Signal Input- 2	14	Signal Output - 3	
	7	Signal Input+ 3	15	No pin (NC)	
	8	Signal Input- 3	16	No pin (NC)	

Application Wiring Diagram:



Product Dimensions:





- 1、 NC" pin must not be connected to any external circuit, otherwise it will damage the product itself;
- 2、 Please read the user manual carefully before using. If any question please contact our technical support department.
- 3、 Please do not use this product in hazardous area. The power supply of this product should be 24VDC power source. It is forbidden to use 220VAC power supply.
- 4、 Calculating from the date of delivery, during normal use of the product, any quality problems are free repair or replacement by Company during 3 years warranty,
- 5、 the product is strictly forbidden demolish without permission for not damage
- 6、 All specifications measured at Ta=25°C, humidity<75%, nominal input voltage and rated output load unless otherwise specified.
- 7、 In this datasheet, all the test methods of indications are based on corporate standards.