

ISO Series Analog signal comparison isolated transmitter

(high / low signal select controller)

Features:

- 2-Channel analog direct input. Select high or low signal output.
- Sensitive resolution, rapid speed of response.
- 3000VDC isolation between the working power, input and output signals.
- Auxiliary power supply: 5V、12V、15V or 24V direct single power supply
- Low cost、 Ultra-small volume, no need to adjust, easy to use and high reliability.
- Standard DIN35 DIN Rail mount.
- Industrial temperature range: - 45 ~ + 85°C

Applications:

- 2-Channel analog signal comparison and selection
- Industrial spot process control
- electric autoimmunization, and automation & control safety monitoring
- Signal non-distortion control and transmission
- Signal comparison control and alert
- Ground interference suppression

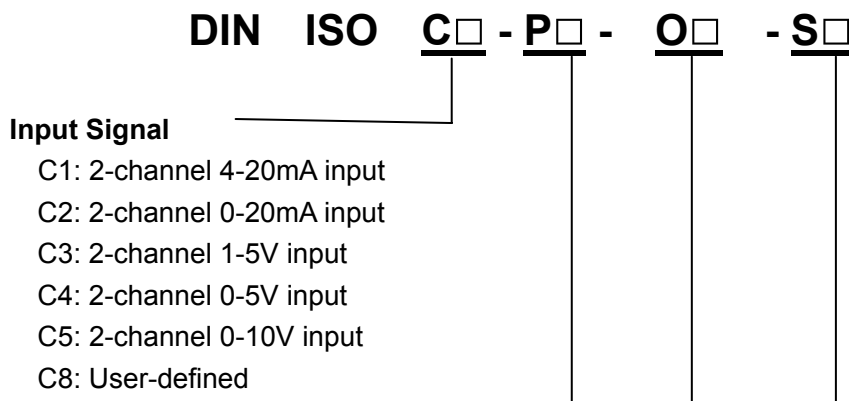
Summary:

SunYuan **DIN ISO C-P-O-S** series analog signal comparison transmitter is a high / low analog signal select controller. In this transmitter, 2-channel input analog signals are compared to choose a high or low signal (Select high or low signal) according to the setting demands, and the selected signal will be isolated amplified. The product is mainly composed of multi-channel high isolation DC / DC power supply, signal comparator, signal isolation amplifying and conversion circuits. It particularly applies to the comparison and control of the 2-channel analog signals. Now it widely used in the industrial field process control, electric autoimmunization, and automation & control safety monitoring.

The integrated high-efficiency DC-DC power supply of **DIN ISO C-P-O-S** can produce multi-channel isolated power to the internal amplifier circuit, selection and comparison circuit, modulation and demodulation circuit, isolation conversion circuit. The SMD craft and new isolation technologies makes the products realize 3000VDC isolation between the working power, input and output signals. It can also meet environmental requirements of industrial wide temperature (- 45 ~ + 85 °C).

Products Choose

DIN: standard DIN 35 rail mount; **ISO**: Isolation between power supply, input and output signal.



Auxiliary Power Supply

P1: DC24V P2: DC12V
P3: DC5V P4: DC15V P8: User defined

Output Signal

O1: 4-20mA O2: 0-20mA O4: 0-5V
O5: 0-10V O6: 1-5V O8: User defined

Selection Setting

H: Select High L: Select Low

Product selection example:

Example1: Signal input: 2-channel 4-20mA input; Signal output: 4-20mA; Select the low signal output;
Auxiliary power supply: 24V;

Model: DIN ISO C1-P1-O1-SL (Isolated standard DIN 35 rail mount)

Example2: Signal input: 2-channel 1-5V input; Signal output: 1-5V; Select the high signal output;
Auxiliary power supply: 12V;

Model: DIN ISO C3-P2-O6-SH (Isolated standard DIN 35 rail mount)

General Parameter:

Accuracy ----- 0.5 %	Return difference ----- < 0.5%
Auxiliary power supply ----- DC5V、12V、24V, ±10 %	Isolation ----- power supply / input / output signals
Operation Temperature ----- -45 ~ +85℃	Insulation resistance ----- ≥20MΩ
Operation Humidity ----- 10 ~ 90% (non-condensing)	Withstand voltage ----- power supply / input / output signals
Storage Temperature ----- -55 ~ +125℃	3KVDC, 50Hz, 1minute, leakage of electricity 1mA
Storage Humidity ----- 10 ~ 95% (non-condensing)	Impulse withstand voltage----- 3KV, 1.2/50us(peak value)

Input Parameter

Input Item	Input Impedance	Power Consumption	Input Overload Capacity
0-5V	≥300KΩ	Voltage output < 1.2W Current output < 1.5W	2.0 times rated: continue
0-10V			
0-1mA	1KΩ		1.5 times rated: continue 3.0 times rated: 1S
0-10mA	TYP: 250Ω		
0-20mA	Can be customized settings		
4-20mA			

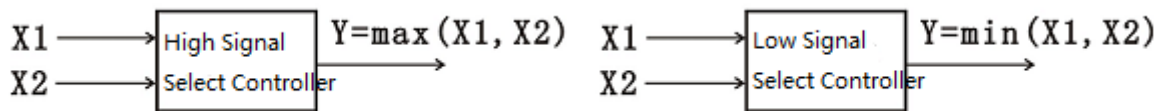
Output Parameter

Output Item	Output Overload Capacity	Response Time
4-20mA	Load resistance < 350Ω	≤10mS
0-20mA		
0-5V	≥2KΩ	
0-10V		
1-5V		

*

Note: If need load resistance 650Ω for current output product , please indicate it in the order.

Application Example:



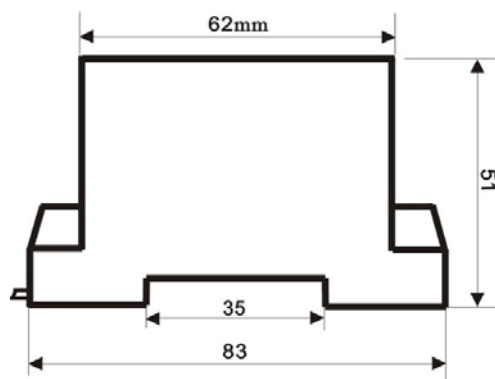
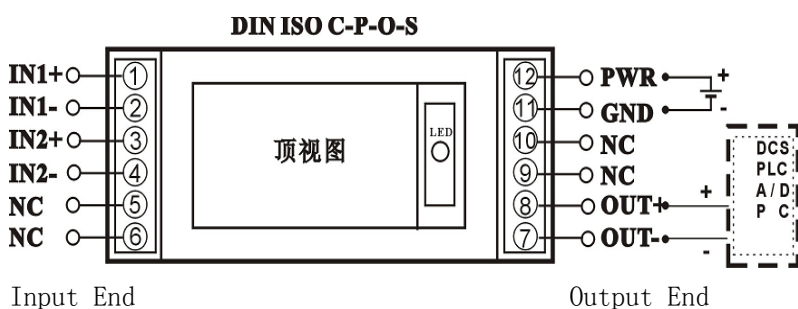
Application Explanation:

- 1、 For high signal select controller, the output signal Y equals the higher value of the input X₁ and X₂.
Example: X₁=5mA, X₂=4mA, Y_{max}=5mA。
- 2、 For low signal select controller, the output signal Y equals the lower value of the input X₁ 和 X₂.
Example: X₁=5mA, X₂=4mA, Y_{min}=4mA。

Example of High Signal Select Controller Application			
Model: DIN ISO C1-P1-O1-SH			
Input of Channel 1	Input of Channel 2	Signal Selection	Output
6mA	12mA	12mA	
20mA	16mA	20mA	

Example of Low Signal Select Controller Application			
Model: DIN ISO C3-P2-O6-SL			
Input of Channel 1	Input of Channel 2	Signal Selection	Output
3V	1V	1V	
2V	5V	2V	

Footprint Function and Dimension:



Pin	Description	
1	IN1+	Input positive signal for channel 1
2	IN1-	Input negative signal for channel 1
3	IN2+	Input positive signal for channel 2
4	IN2 -	Input negative signal for channel 2
5	NC	No pin
6	NC	No pin
7	OUT -	Negative end of output channel
8	OUT +	Positive end of output channel
9	NC	No pin
10	NC	No pin
11	GND	Negative end of auxiliary power supply
12	PWR	Positive end of auxiliary power supply

