

Two input and four output analog signal isolation distributor

(DIN24 IAP series/using optocoupler isolation technology)

Main features:

- >>Accuracy level: 0.1 level, 0.2 level. The product has been inspected and calibrated before leaving the factory, and users can use it directly
- >>Auxiliary power supply: 5V/12V/15V/24VDC (range $\pm 10\%$)
- >>International standard one channel signal input: 0-5V/0-10V/1-5V, 0-10mA/0-20mA/4-20mA, etc
- >>Four output standard signals: 0-5V/0-10V/1-5V, 0-10mA/0-20mA/4-20mA, etc., with high load capacity
- >>Extremely high linearity within the full range (nonlinearity<0.2%)
- >>Standard DIN35 rail installation (size: 120 x 70 x 43mm)
- >>Has strong resistance to electromagnetic interference and high-frequency signal interference.

Application:

- >>Analog signal data isolation, acquisition, and transformation, signal distributor
- >>Isolate 4-20mA or 0-20mA signal transmission
- >>Industrial site signal isolation and transformation
- >>Long line distortion free transmission of signals
- >>Instrumentation signal transmission and reception
- >>Power monitoring, medical equipment isolation
- >>Isolation and acquisition of frequency converter signals
- >>PLC/FA motor signal isolation control
- >>Selection Table for Non electric Signal Transmission Products:



DIN24 IAP - V(A)□ - P□ - V/I□

Input signal				Power supply		output signal			
Voltage	code	electric current	code	Power	code	electric current	code	Voltage	code
0-5V	V1	0-1mA	A1	24VDC	P1	0-20ma	A3	0~5V	V1
0-10V	V2	0-10mA	A2	12VDC	P2	4-20ma	A4	0-10V	V2
0-75mV	V3	0-20ma	A3	5VDC	P3	User defined	Az	1-5V	V6
0-2.5V	V4	4-20mA	A4	15VDC	P4			User defined	Vz
User defined	Vz	User defined	Az						

Example of selection: (OUT1 and OUT2 are controlled by IN1, while OUT3 and OUT4 are controlled by IN3)

Example 1: Input signal: 0-10V Power supply: 24V Output four-way signal: 4-20mA Model: DIN24

IAP-V2-P1-A4

Example 2: Input signal: 0-10V Power supply: 12V

Output four-way signal: 0-10V Model: DIN24

IAP-V2-P2-V2

Example 3: Input signal: 0-3V Power supply: 24V
 DIN24 IAP-Vz-P1-A4 (Vz: 0-3V) Product maximum absolute rating:

Output four-way signal: 4-20mA Model:

Continuous Isolation Voltage: 3000VDC Junction Temperature: +85 °C

Storage Temperature: +150 °C Power Supply Voltage Range: ± 10% Vin

Attention: If the above range is exceeded, the product may cause permanent damage.

General parameters

Parameter Name	Test conditions	minimum	Typical values	maximum	Company
Isolation and voltage resistance	50Hz, 1 minute, leakage current 1mA		two thousand and five hundred		VDC
Withstand impulse voltage	3KV, 1.2/50us (peak)				
working temperature		-25		+70	°C
Working humidity	No condensation	ten		ninety	%
Storage temperature		-45		+80	°C
Storage humidity		ten		ninety-five	°C

Input parameters and output parameters

Enter project	Input impedance	Power loss	Input overload capacity	Output project	Output overload capacity	response time
0-5V	≥300K Ω	Voltage output < 0.6W	2.0 times rated: continuous	4-20mA	Load resistance not exceeding 350 Ω	≤1mS
0-10V				0-20mA		
0-1mA	1KΩ	Current output	1.5 times rated: continuous	0-5V	≥2K Ω	
0-10mA	TYP: 250Ω			0-10V		
0-20mA	Self			1-5V		

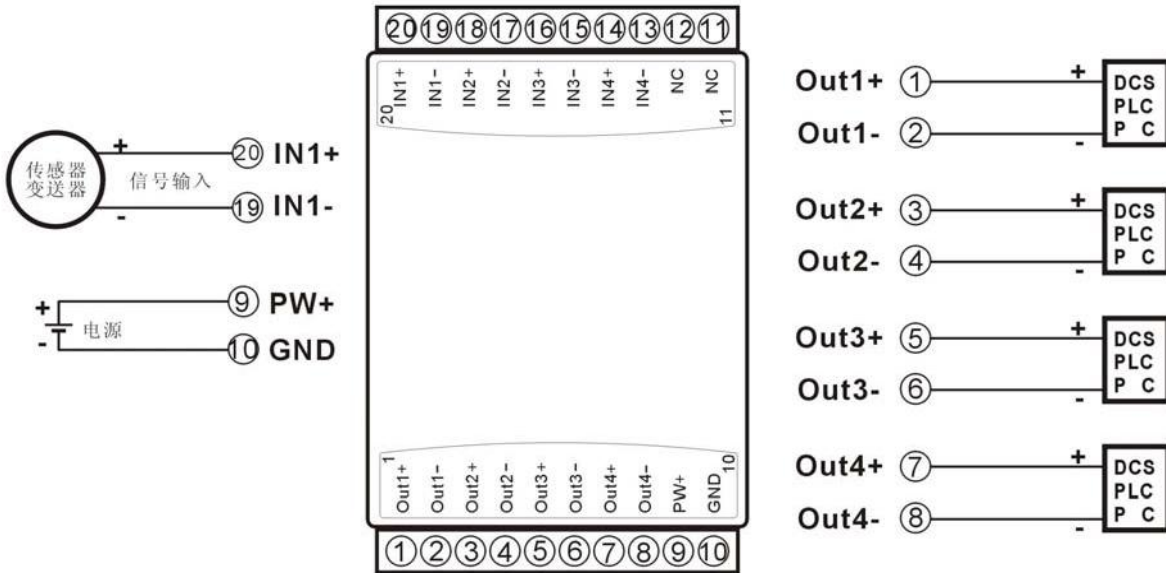
Note: If the current output type requires a load resistance of 500 Ω, please specify separately

Pin definition:

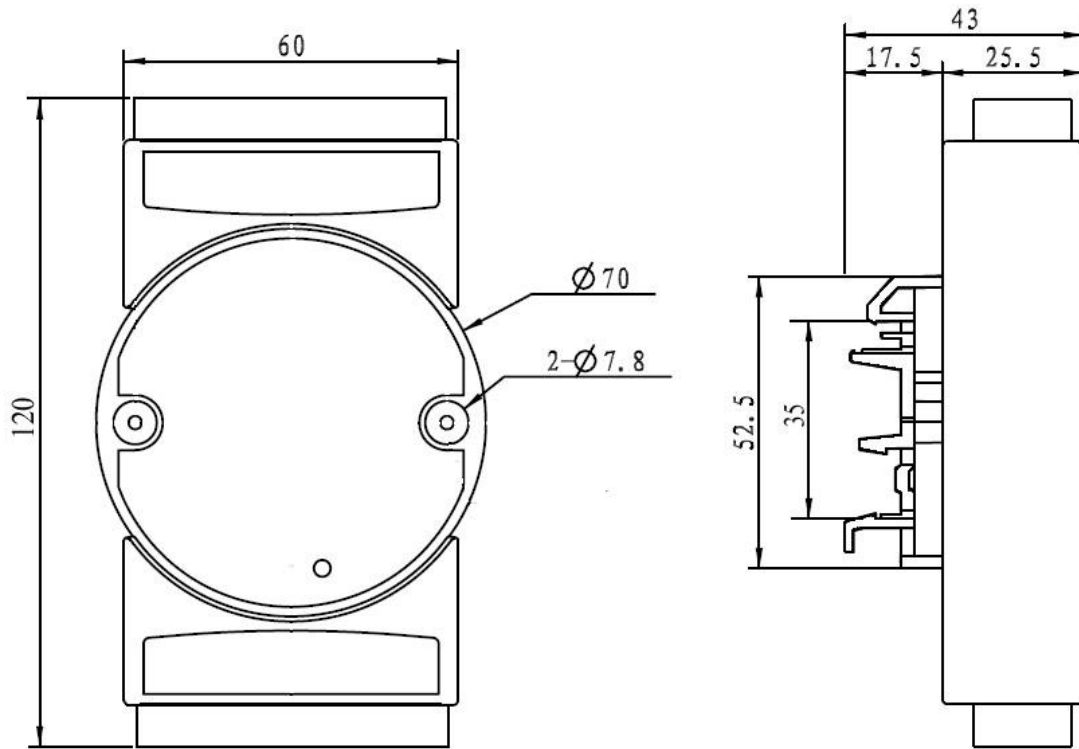
Pin	name	describe	Pin	name	describe
one	OUT1+	Analog signal 1 output positive terminal	eleven	NC	Empty feet
two	OUT1-	Analog signal 1 output negative terminal	twelve	NC	Empty feet
three	OUT2+	Analog signal 2 output positive terminal	thirteen	IN4+	Empty feet
four	OUT2-	Analog signal 2 output negative terminal	fourteen	IN4-	Empty feet
five	OUT3+	Analog signal 3 output positive terminal	fifteen	IN3+	Analog signal input positive terminal
six	OUT3-	Analog signal 3 output negative terminal	sixteen	IN3-	Analog signal input negative

					terminal
seven	OUT4+	Analog signal 4 output positive terminal	seventeen	IN2+	Empty feet
eight	OUT4-	Analog signal 4 output negative terminal	eighteen	IN2-	Empty feet
nine	PW+	Positive end of power supply	nineteen	IN1+	Analog signal input positive terminal
ten	GND	Negative end of power supply	twenty	IN1-	Analog signal input negative terminal

Note: OUT1 and OUT2 are controlled by IN1, while OUT3 and OUT4 are controlled by IN3



Dimensions: (Unit: mm)



Can be installed on standard DIN35 rails

matters needing attention:

1. Before use, carefully check and confirm the quantity, model, and specifications of the product according to the packing list and product label.
2. When using, it is necessary to follow the wiring reference diagram corresponding to the selected product model, correctly connect the signal input, output, and power lines, check for errors, and then connect the power and signal.
3. When measuring signals directly with probes, please tighten the terminals.
4. The usage environment should be free of conductive dust and corrosive gases that can damage insulation and metals.
5. When installing centrally, the installation spacing should be $\geq 10\text{mm}$.
6. The product has been calibrated before leaving the factory, please do not adjust it arbitrarily. If on-site calibration is necessary, please contact our company.
7. The product is an integrated structure that cannot be disassembled, and collision and falling should be avoided. This product comes with a 2-year warranty, during which our company provides free maintenance or replacement. Any label on the product that is intentionally damaged, altered, or torn off will not be returned or exchanged.

8. There is no lightning protection circuit installed inside the product. When the input and output feeders of the product are exposed to harsh outdoor weather conditions, please take lightning protection measures.
9. Product specifications may be updated without prior notice.

guarantee:

Within two years from the date of sale, if the user complies with the storage, transportation, and usage requirements and the product quality is lower than the technical specifications, it can be returned to the factory for free repair. If damage is caused due to violation of operating regulations and requirements, device fees and maintenance fees shall be paid.

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