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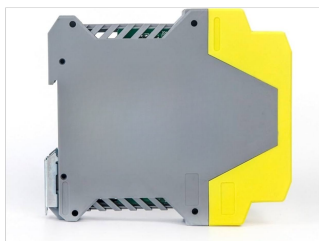
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MDGPA SERIES - Analog Signal Isolation Distributor Datasheet



Product description

This apparatus provides isolated power supply to the field two-wire, three-wire transmitter, and detects the current signal in a circuit meanwhile. It transmits the input current or voltage signal to isolated current or voltage signal in a circuit or two isolated circuits, and the input, output, and power supply are galvanically isolated from each other.

It can be used together with modular instrumentation and DCS, PLC and other systems, to offer signal isolation, signal conversion, signal distribution, signal processing and other functions to field instrument, thereby enhancing the immunity of automatic control system in the industrial production process, and ensuring system stability and reliability. This product has many varieties, such as 1 in/1 out, 1 in/2 out, 1 in/4 out, 2 in/2 out, with input/output magnetic isolation.

Compared with other similar products, this apparatus has the advantages of fast response time, low power loss and quite well temperature characteristics.

Power Light Indication: PWR (red) remains shining during normal operation;

Mainly technical parameters

Transmitting accuracy:	$\pm 0.1\% \text{F.S (} 25^{\circ}\text{C} \pm 2^{\circ}\text{C)}$
Rise time:	$\leq 0.2 \text{ ms}$
Settling time:	$\leq 2 \text{ ms}$

Influence of ambient temperature: $< 30 \text{ ppm/}^{\circ}\text{C}$

Ripple: $< 1 \text{ mV}$

Frequency range: $0 \sim 300 \text{ Hz}$

Input resistance: current: $\leq 60 \Omega$
voltage: $0 \sim 5\text{V}: \geq 1\text{M}\Omega$;
 $0 \sim 10\text{V}: \geq 2\text{M}\Omega$

Output load capacity:
*Please specify your requirements before order if greater output load capacity is needed.

DC current: $0 \sim 10\text{mA}$:
 $\leq 700\Omega$; $4 \sim 20\text{mA}$: $\leq 500\Omega$;
 $0 \sim \pm 10\text{mA}$: $\leq 1\text{k}\Omega$;
 $0 \sim \pm 20\text{mA}$: $\leq 500\Omega$;

DC voltage: $0(1) \sim 5\text{V}$:
 $\geq 1\text{M}\Omega$; $0 \sim 10\text{V}$: $\geq 2\text{M}\Omega$;
 $0 \sim \pm 5\text{V}$: $\geq 1\text{M}\Omega$; $0 \sim \pm 10\text{V}$:
 $\geq 2\text{M}\Omega$;

RS485

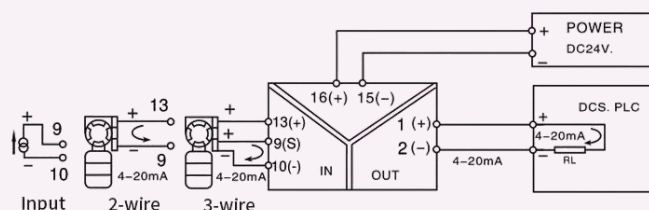
Power supply voltage range: $18 \sim 32\text{V DC}$
(Recommended voltage: 24V DC);
 $85 \sim 265\text{V AC}$ (OR $120 \sim 360\text{V DC}$)

Power consumption: **24V DC:** Single output - 0.4W , Double output - 0.6W
220V AC: Single output - 1.0VA , Double output - 1.2VA

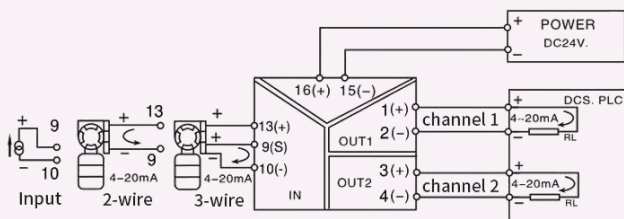
Insulation resistance: $\geq 100 \text{ M}\Omega$ (Input /Output / Power)

Dielectric strength: $\geq 1500 \text{ V AC}$ (Input /Output /Power, 1mA leakage current, 1 minute test time)

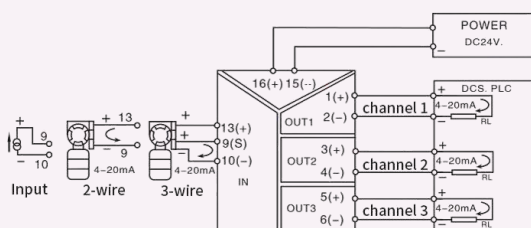
Electromagnetic compatibility: IEC 61000-4



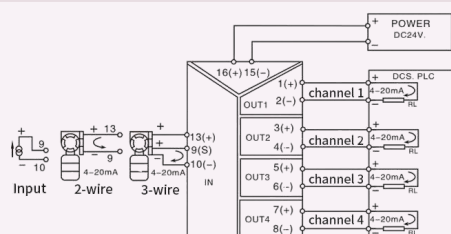
1 in/1 out



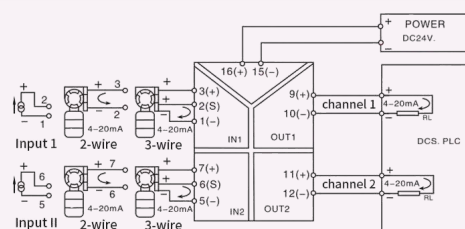
1 in/2 out



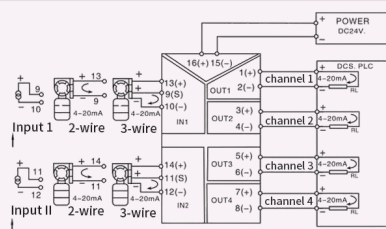
1 in/3 out



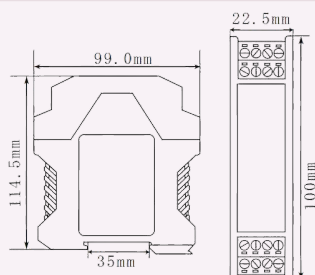
1 in/4 out



2 in/2 out



2 in/4 out



Dimensions

Product Series: MDGPA

Channels

1: 1-in/1-out, 2: 1-in/2-out, 3: 1-in/3-out,
4: 1-in/4-out, 5: 2-in/2-out, 7: 2-in/4-out

Input

1: 4~20mA, 2: 0~20mA, 3: 1~5V,
4: 0~75MV, 5: 0~5V, 6: 0~10V, 7: Others

Output1

1: 4~20mA, 2: 0~20mA, 3: 0~10mA,
4: 0~5V, 5: 0~10V, 6: RS485

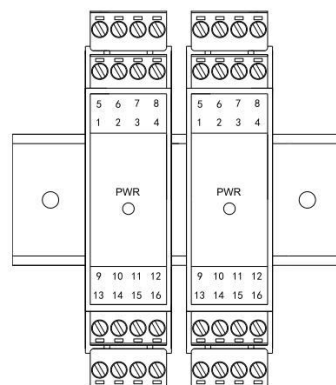
Power Supply

DC 24V as default,
A: 85-265VAC/DC, B: DC12V

MDGPA - 2 - 1 - 1

It means that the model is MDGPA-211, 1 in/2 out, input 4~20mA, output 4~20mA, DC 24V

Installation Method



1. 35mm DIN rail mounting, Pls. make sure that apparatus snaps on the rail steadily and firmly.
2. Vertical position shall be kept as possible to facilitate heat dissipation.

3. Double channel apparatus (double input & double output) is 17.8mm slim while a single channel one is 12.8mm slim. Please pay attention to the difference of width and wiring between the two types.

Operation conditions

Installation position shall not be affected by strong mechanical vibration, impact and electromagnetic induction from signal terminal and power supply, should conformity with the requirements on electromagnetic interference resistance of products in Class 3 industrial field atmosphere stipulated in IEC 61000-4, and the atmosphere shall be free from gases that are corrosive to metal and plastic components.