



4-input-4-output passive two-wire 4-20mA isolation transmitter

Features:

- ◆ Small size, low cost, No correction directly use
- ◆ Multiple port isolation
- ◆ 4-input-4-output mutual isolation between channels
- ◆ High accuracy (0.1% F.S, 0.2% F.S)
- ◆ High linearity (0.1% F.S)
- ◆ High isolation voltage (2500VDC/60S)
- ◆ Low temperature drift (35PPM/°C)
- ◆ Low impedance (voltage drop <3V, 20mA)
- ◆ Wide Industrial class operation temperature (-45~+85°C)
- ◆ Wide voltage input (7.5V~32V)
- ◆ High reliability (MTBF>50Wan hour)
- ◆ Passed CE Certificate
- ◆ International standard signal input and output (4~20mA/0~20mA)

Application:

- ◆ DC current/voltage signal isolation, conversion and amplification
- ◆ Analog signal ground interference suppression and analog isolation, acquisition
- ◆ 4~20mA/0~20mA sensor signal isolation, transformation and signal distribution conversion
- ◆ instrumentation and sensor signal transceiver
- ◆ Two-wire primary/secondary instrumentation signal acquisition and isolation
- ◆ power isolation monitoring industrial site
- ◆ Analog signal data isolation, acquisition, conversion, and distance transmission
- ◆ Industrial field signal isolation and conversion, and distance transmission without distortion
- ◆ power monitoring, medical equipment isolation barrier
- ◆ overcome inverter, large motors, power equipment, acquisition systems, DCS and PLC Field interference

General Description:

JIE Sheng Da Technology DIN35 4x4 MI 4-20mA two-wire passive single-channel analog 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 system. The product is isolated between input and output , the isolated voltage is up to 3000VDC .It is widely used in the industrial measurement systems, medical electronic equipment, electrical equipment etc. Adopting high efficiency electromagnetism isolation technology to achieve signal isolation, it is available to keep high output accuracy, good linearity and low temperature drift.

Selections and Definitions:

| Product Selection Parameter List: |     |    |        |                              |
|-----------------------------------|-----|----|--------|------------------------------|
| DIN35                             | 4x4 | MI | 4~20mA | Detailed description         |
| Package Marking                   |     |    |        | Standard DIN35 rail mounting |
| Channel code                      |     |    |        | 4-input-4-output             |
| Isolation code                    |     |    |        | Magnetic Isolation Products  |
| current signal Input              |     |    |        | 4~20mA current signal input  |
| current signal output             |     |    |        | 4~20mA current signal output |



Electrical Characteristics:

| Signs                        | Item                  | Test Condition   | Min   | Type | Max  | Units  |    |
|------------------------------|-----------------------|--|---|------|------|--------|----|
| Isolation characteristics    | Isolation voltage     | AC,50Hz,(Tested for 1 minute humidity<70% ,leakage current < 1mA,) |   | 3000 |      | V(rms) |    |
|                              | Insulation resistance | 500VDC (input/output)  |   | 100  |      | MΩ     |    |
| Transmission characteristics | Gain drift            |  |   | ±35  | ±50  | ppm/°C |    |
|                              | Non-linearity         |  |   | ±0.1 | ±0.2 | %FSR   |    |
|                              | Output voltage range  |  | 10  | 24   | 30   | VDC    |    |
|                              | Signal                | current  |   | 4    | 20   | 30     | mA |
|                              | Signal                | current  |   | 4    |      | 20     | mA |
|                              | Load capacity         | current  | RL≤ (Us-5) /0.02<br>Us: Loop power supply voltage |      | 250  |        | Ω  |
|                              | Frequency Response    |  | (Small-signal bandwidth)Io=20mA                   |      | 50   |        | Hz |
|                              | Signal output ripple  |  |   | 5    | 10   | mVRM   |    |
| Power input characteristics  | Power supply          | voltage  |   | ---  | ---  | VDC    |    |
|                              |                       | Power loss   |   | ---  | ---  | W      |    |
|                              |                       | Range  |   | ---  | ---  | %      |    |
| Other characteristics        | soldering temperature | Solder from the shell 1.5mm,10s                                    |   |      | 300  | °C     |    |
|                              | operating temperature |  | -45   |      | 85   | °C     |    |
|                              | storage temperature   |  | -55   |      | 105  | °C     |    |
|                              | weight                |  |   | 136  |      | g      |    |
|                              | size                  |  | 115*100*23  |      |      |        | mm |
| Note                         | normal load ≤ 300Ω    |  |   |      |      |        |    |

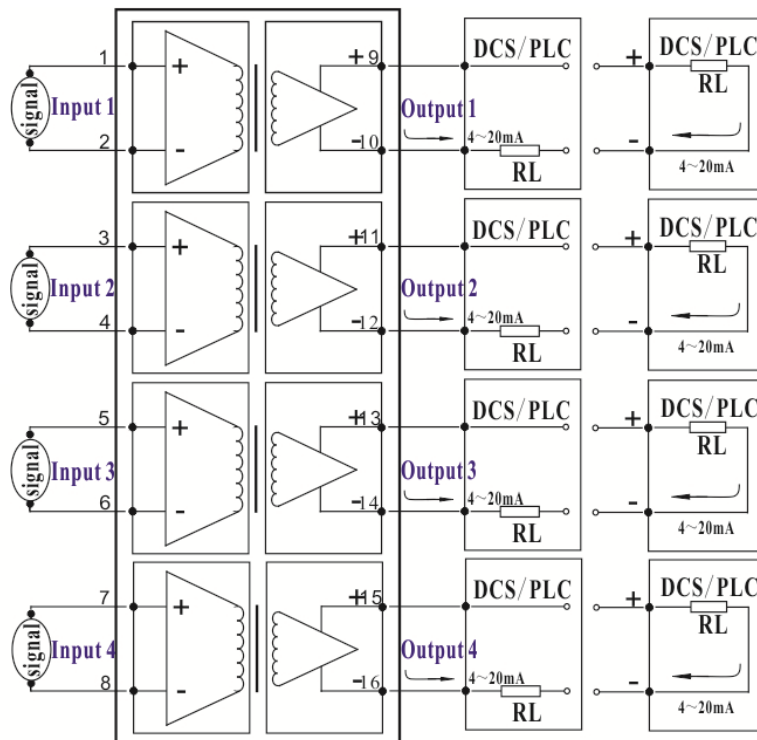
Selection Example:

- Signal input 1:4-20mA; signal output 1:4-20mA; Signal input 2:4-20mA; signal output 2:4-20mA; Signal input 3:4-20mA; signal output 3:4-20mA; Signal input 4:4-20mA; signal output 4:4-20mA; Model: DIN35 4x4 MI 4-20mA
- Signal input 1:0-20mA; signal output 1:0-20mA; Signal input 2:0-20mA; signal output 2:0-20mA; Signal input 3:0-20mA; signal output 3:0-20mA; Signal input 4:0-20mA; signal output 4:0-20mA; Model: DIN35 4x4 MI 0-20mA

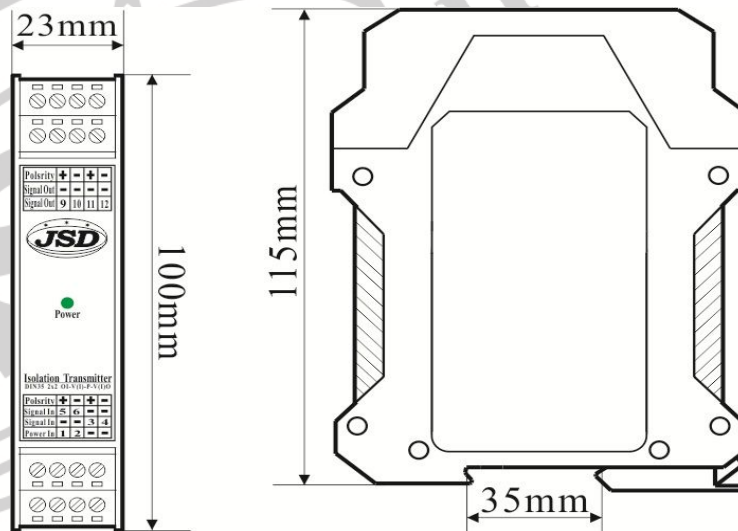
Pins Function Description:

| Outputting types                            | Pin | Function         | Pin | Function           | Storage                      |
|---|-----|------------------|-----|--------------------|------------------------------|
| Three-channel passive 4-20mA current output | 1   | Signal input + 1 | 9   | Current output + 1 | Standard DIN35 rail mounting |
|   | 2   | Signal input - 1 | 10  | Current output - 1 |                              |
|   | 3   | Signal input + 2 | 11  | Signal output + 2  |                              |
|   | 4   | Signal input - 2 | 12  | Signal output - 2  |                              |
|   | 5   | Signal input + 3 | 13  | Signal output + 3  |                              |
|   | 6   | Signal input - 3 | 14  | Signal output - 3  |                              |
|   | 7   | Signal input + 4 | 15  | Signal output + 4  |                              |
|   | 8   | Signal input - 4 | 16  | Signal output - 4  |                              |

## Application Wiring Diagram:



## Product Dimensions:



## Notes:

- 1、 Please read the user manual carefully before using. If any question please contact our technical support department.
- 2、 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.
- 3、 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,
- 4、 To avoid invalid, or any failure, users disassemble this product is forbidden
- 5、 the product is strictly forbidden demolish without permission for not damage
- 6、 All specifications measured at  $T_a=25^{\circ}\text{C}$ , 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.