

3-input-3-output active high accuracy isolation transmitter

Features:

- ◆ Small size, low cost, international standards DIN35mm rail mounting
- ◆ three-port isolation (input, output and power supply)
- ◆ 3-input-3-output ,isolated 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)
- ◆ Wide Industrial class operation temperature (-45~+85°C)
- ◆ High reliability (MTBF>50 Wan hour)
- ◆ Power supply (5VDC/12VDC/15VDC/24VDC single power supply options)
- ◆ International standard signal input and output (0~2.5V/0~3.3V/0~5V/1~5V/0~10V/0~±10V/4~20mA/0~±20mA/0~20mA/0~10mA/0~1mA/0~100mV etc. optional)
- ◆ Passed CE Certificate

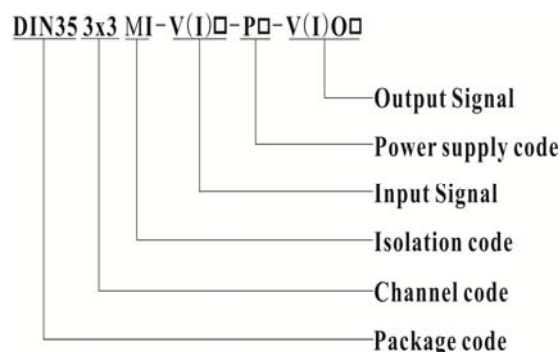
Application:

- ◆ DC current/voltage signal isolation, conversion and amplification
- ◆ Analog signal ground interference suppression and analog isolation, acquisition
- ◆ 4~20mA/0~5V/1~5V/0~±10V/0~±20mA sensor signal isolation, transformation and signal distribution, conversion
- ◆ instrumentation and sensor signal transceiver
- ◆ power isolation monitoring industrial site
- ◆ Analog signal data isolation, acquisition, conversion, and long-distance transmission
- ◆ industrial field signal isolation and conversion, and long-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 3x3 MI active precision 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 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. Suitable for using in vibration, damp industrial field, the standard DIN35mm rail mounting for easy user installation.

Selections and Definitions:



| Product Selection Parameter List: | | | | | | |
|---|-------------|--------------------|-------|-----------------------|--------------|---------------------------|
| DIN35 | 3x3 | MI | V(I)x | Px | V(I)Ox | Detailed description |
| Package code | | | | | | Standard DIN 35mm Package |
| Channel code | | | | | | 3-input-3-putput |
| Isolation code | | | | | | Magnetic 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: -20~+20mA | VO6: 1~5V | |
| V4: 0~2.5V | I4: 4~20mA | P4: 5VDC | | | VO7: 0~±5V | |
| V5: 0~±5V | I5: 0~±1mA | | | | VO8: 0~±10V | |
| V6: 0~±10V | I6: 0~±10mA | | | | | |
| V7: 0~±100mV | I7: 0~±20mA | | | | | |
| 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 | Isolation voltage | AC,50Hz,(Tested for 1 minute humidity<70%, leakage current < 1mA) | | 2500 | | V(rms) |
| | Transmission characteristics | Gain error | | 1 | | V/V |
| | Gain drift Non-linearity | | | 35 | | ppm/°C |
| | Non-linearity | | | 0.1 | 0.2 | %FSR |
| Input characteristics | Signal voltage | | 0 | | 15 | V |
| | input current | | 0 | | 30 | mA |
| | Input offset voltage | | | 2 | 5 | mV |
| | Input impedan | | | 1 | | M |
| Output characteristics | output voltage | | -10 | | 10 | V |
| | output current | | -20 | | 20 | mA |
| | Load voltage | Vout=10V | | 2 | | kΩ |
| | capacity current | | 0 | 350 | 500 | Ω |
| | Signal output ripple | Unfiltered | | 10 | 20 | mVRMS |
| Power input characteristics | Power supply Voltage | | 3.3 | 12 | 24 | VDC |
| | Power loss | | | | 2 | W |
| | Rage | | -10 | | +10 | % |
| Other characteristics | operating temperature | | -45 | | 85 | °C |
| | storage temperature | | -55 | | 105 | °C |
| | Weight | | | 136 | | g |
| Note: | Normal load ≤ 350Ω, if required load 500Ω, please note when ordering . | | | | | |

Selection Example:

Example 1: Signal Input 1: 4-20mA; Signal Input 2: 4-20mA; Signal Input 3: 4-20mA;
 Signal Output 1: 0-20mA; Signal Output 2: 0-20mA; Signal Output 3: 0-20mA;
 Power Supply: 24VDC; Model: DIN35 3x3 MI-I4-P1-IO2

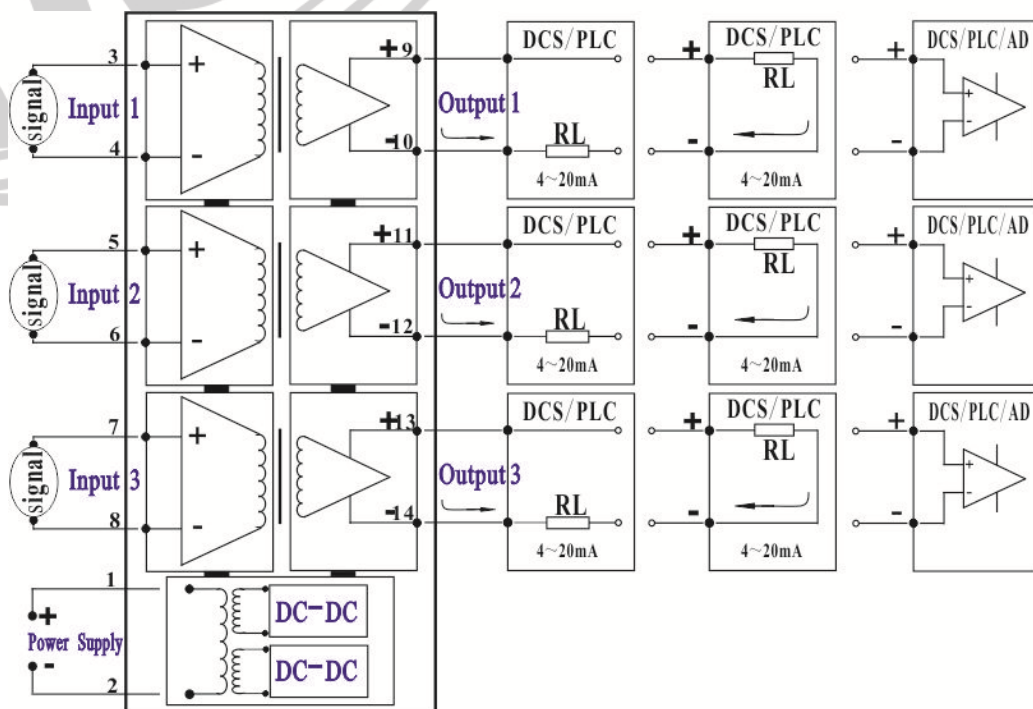
Example 2: Signal Input 1: 4-20mA; Signal Input 2: 4-20mA; Signal Input 3: 4-20mA;
 Signal Output 1: 0-5VDC; Signal Output 2: 0-5VDC; Signal Output 3: 0-5VDC;
 Power Supply: 24VDC; Model: DIN35 3x3 MI-I4-P1-VO4

Example 3: Signal Input 1: 0-10VDC; Signal Input 2: 0-5VDC; Signal Input 3: 4-20mA;
 Signal Output 1: 0-5VDC; Signal Output 2: 4-20mA; Signal Output 3: 0-10VDC;
 Power Supply: 24VDC; Model: DIN35 3x3 MI-V2-V1-I4-P1-VO4-IO1-VO5

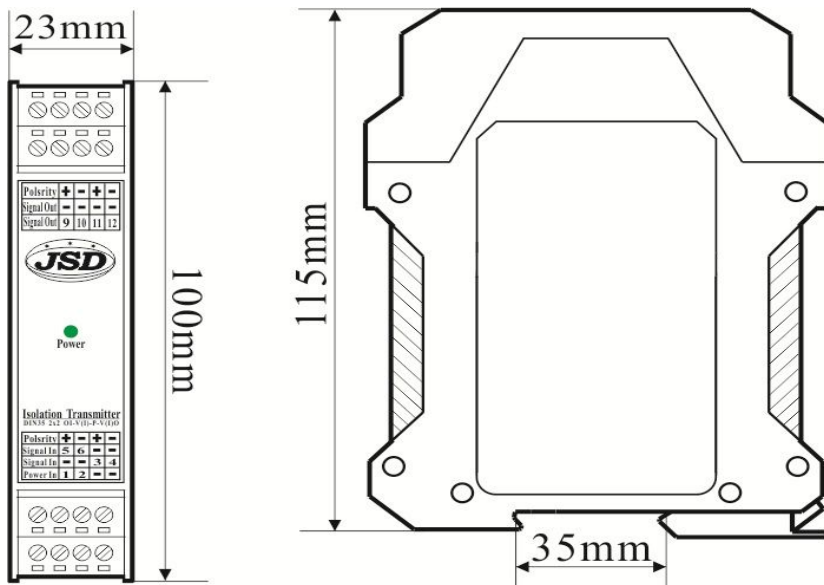
Pin Function Description:

| Signal Type | Pin | Function Description | Pin | Function Description | Package |
|------------------|-----|----------------------|-----|----------------------|--|
| 3-input-3-output | 1 | Power supply Input + | 9 | Signal Output + 1 | International Standard DIN35 Rail Mounting |
| | 2 | Power supply Input - | 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 Input + 3 | |
| | 6 | Signal Input - 2 | 14 | Signal Input - 3 | |
| | 7 | Signal Input + 3 | 15 | NC | |
| | 8 | Signal Input - 3 | 16 | NC | |

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 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.