Isolated Analog Signal Converter 150V to 20mA

Features:

Isolated Analog Signal Converter 150V to 20mA

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Key Features

- **High Voltage DC to Current Loop**: Converts 0–150V DC input signals into standard 4–20 mA current loops for long-distance transmission
- **2-Way Galvanic Isolation**: Up to 1 kV RMS optical and magnetic isolation separates field power from sensitive control equipment
- **True Analog Signal Isolation**: Pure continuous linear amplifier topology with zero PWM ripple, ADC quantization, or conversion lag
- **High Noise Immunity**: Eliminates ground loops and resists industrial electrical interference and switching noise
- **Robust Current Loop Driver**: Powers industrial 4–20 mA current loop loads up to 500 Ω
- **High Conversion Accuracy**: Linear calibration delivering < ±0.5% F.S. accuracy @ 25 °C
- **Compact Industrial Enclosure**: 35 mm DIN rail and wall-mount compatible housing (110 mm × 74 mm × 22 mm)
- **1-Year Warranty**: Full 1-year warranty against manufacturing defects
- **Factory Customizable**: Custom input and output spans available on request

Ordering Information

Product Code	Description
AC-150V-420	**Isolated Analog Signal Converter 150V to 20mA**
AC-150V-10V	Isolated Analog Signal Converter 150V to 10V
AC-70V-420	Isolated Analog Signal Converter 70V to 20mA
SPD-20MA	4-20mA Surge Protection Device SPD 4 to 20mA
USS20M24V-D	Current Source Simulator 0/4 to 20mA

Applications

- **Industrial Automation & Process Control**: Reliable signal interfacing and device connectivity across automated production lines.
- **SCADA & PLC Integration**: Seamless communication between field instrumentation and control systems.
- **Control Panel Building**: Compact 35 mm DIN rail mounting for clean and space-efficient cabinet wiring.
- **OEM Equipment & Diagnostics**: Robust electrical protection and standard industrial ratings.

Specifications

Parameter	Value
Mounting Type	35 mm DIN Rail Mounting
Dimensions	110 mm x 74 mm x 22 mm (L x W x H)
Enclosure Material	Industrial ABS plastic
Operating Temperature	−10 °C to +60 °C
Storage Temperature	−40 °C to +85 °C
Relative Humidity	5% to 95% RH (non-condensing)

Electrical Specifications

Parameter	Specification
Power Supply	24V DC (15 ~ 28V DC)
Conversion Accuracy	< ±0.5% of Full Scale @ 25 °C
Temperature Drift	< 100 ppm / °C
Galvanic Isolation	1,000 V RMS (Input / Output)

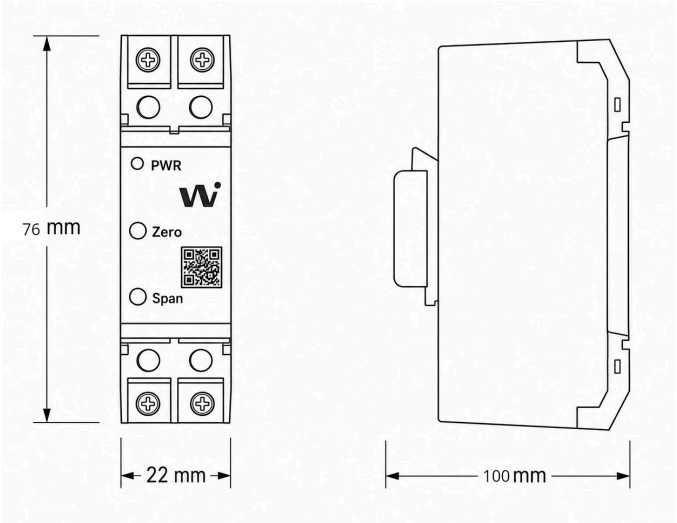
Input/Output Specifications

Parameter	Value
Input Signal Range	0–150 V DC (High Voltage DC)
Output Signal Range	4–20 mA DC (Load <= 500 Ω)
Response Time	< 1 ms

Isolation & Protection Specifications

Parameter	Value	Standard / Notes
Galvanic Isolation	1,000 V RMS	Optical and magnetic isolation barrier
Reverse Polarity Protection	Integrated	Protects internal circuitry against reverse DC wiring
Transient Clamping	600W TVS	Surge and spike suppression across all ports

Mechanical Dimensions



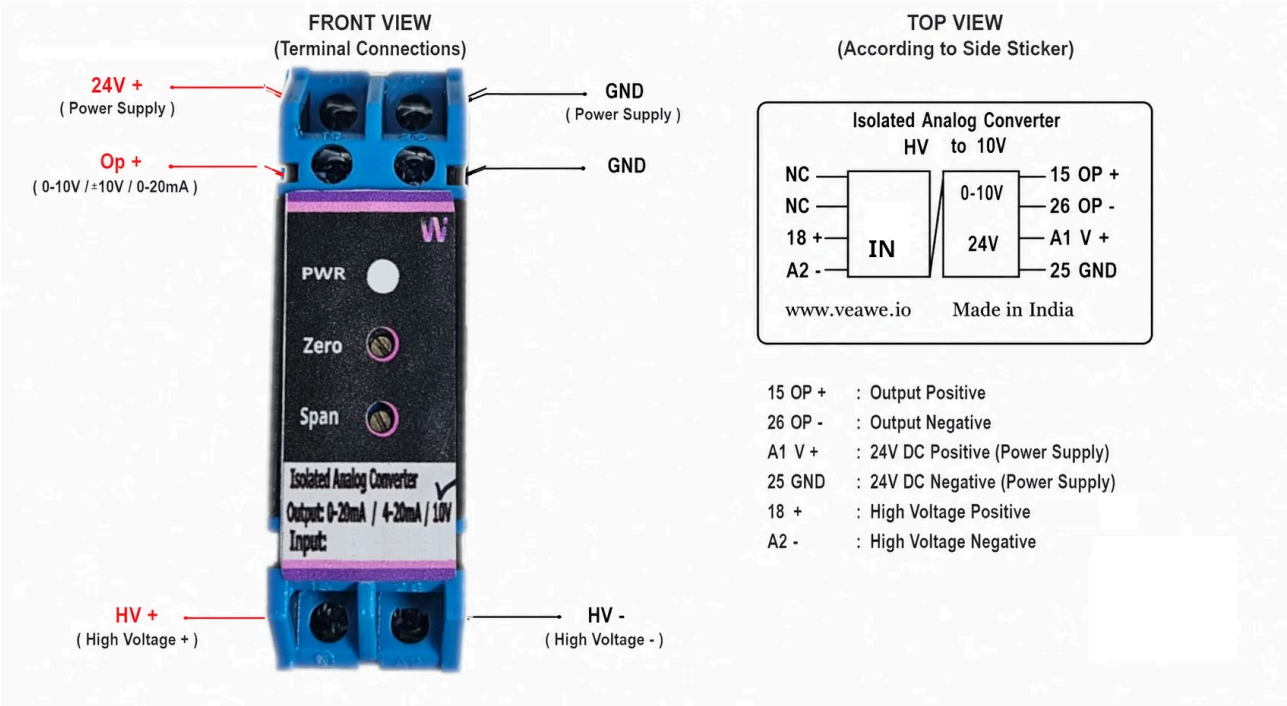
Terminal Details & Wiring

Pluggable industrial screw terminal block connections:

- **Input Terminals**: 0–150V DC high-voltage analog input signal
- **Output Terminals**: 4–20 mA DC isolated current loop output signal
- **Power Terminals**: 24V DC auxiliary power supply and ground

Wiring Diagrams

Note: All images and connection diagrams shown are for illustrative purposes only and may differ from the actual product.



Revision History

Revision	Date	Description of Change
Rev 1.0	2026-09-09	Initial datasheet release for AC-150V-420

Get the latest version of this datasheet : **click here..**

Support

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