



## Features

- Replacement for Rochester Instruments Systems Model 1302
- mV, V, mA Input / Output Options
- Input / Output Isolation
- Surface or Rack Mount
- High Load Output Option

## Description

The Versatile Model ASC-1302 signal isolator is a direct replacement for the Rochester Instrument Systems Isolators. Model ASC-1302 does not use a microprocessor or any embedded firmware. The design and construction uses only analog components.

Model ASC-1302 is constructed of a steel housing which holds the main printed circuit board (PCB). The ASC-1302 has been designed and built using a modular design concept. The main PCB contains the power supply circuitry, 4-20 mA input circuitry and 4-20 mA output circuitry. Other input and output signal ranges are selected by installing different modules onto the main PCB. The advantage of using this modular design concept is that it allows the isolator to be customized without a major design change.

The terminal block arrangement is identical to the Rochester Instrument Systems ASC-1302, permitting direct replacement without the need to change any wiring diagrams or configurations.

The power supply module is available in AC or DC input versions. An on board fuse is accessible on the rear panel of the instrument.

The performance of the isolator is obtained by using high accuracy low drift operational amplifiers.

Zero and Span adjustments are standard and are accessible with a slotted screwdriver thru the rear panel of the instrument.

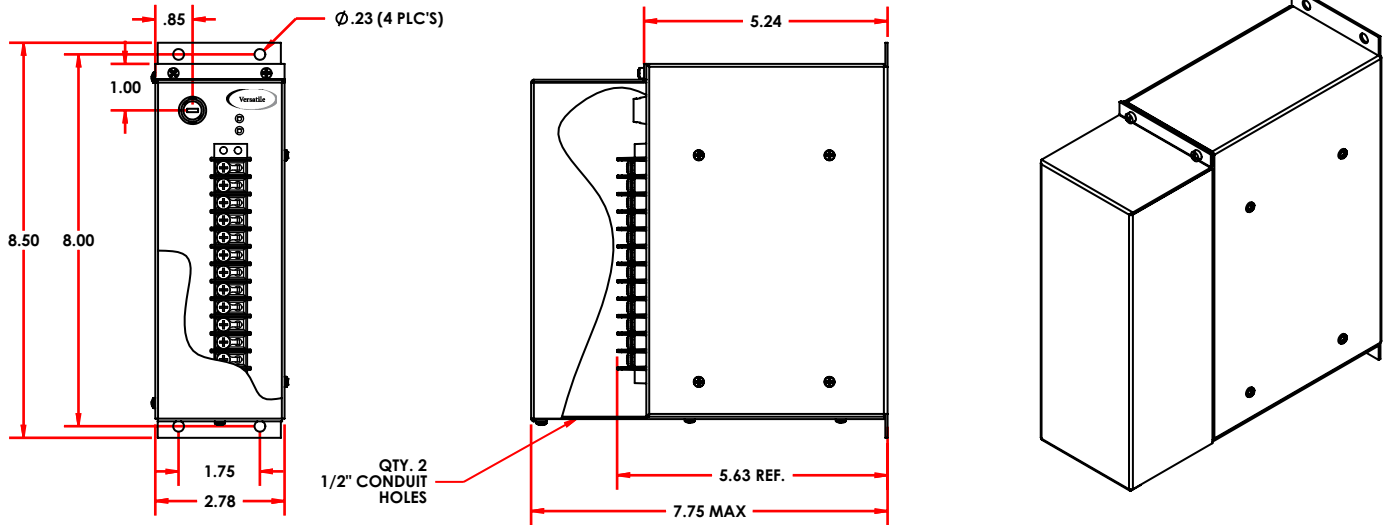


## Specifications

	No.	Description	Conditions																		
General	1	Ambient Conditions	0 to 60° C; 10 to 95% RH (Operating)																		
	2	Temperature Effects	±0.5% for 28° C change in ambient																		
	3	Cooling	Convection																		
	4	Mounting	Panel Mounted																		
	5	Body Size	See N106-254																		
	6	Material	Steel, Painted Black																		
	7	Electrical Supply	115 VAC ± 20%; 50-60 Hz ±3%, 6W Max																		
	8	Line Voltage Effects	< 0.05% of span (0.08mADC) for ±10% variations																		
	9	Electrical / Signal Connection	1x12 Terminal Strip (Mounting Screw used for Earth GND)																		
	10	Adjustments	Gain: 0.75 to 2.25 Zero: 3 to 13 mADC																		
	11	Calibration	Zero and Span Potentiometers, screwdriver adjustable thru the rear panel.																		
	12	Drift	< 0.1% of span (≤±0.016mA) per 24 hours with steady state temperature and humidity < 0.2% of span (≤±0.032mA) per 30 days with steady state temperature and humidity																		
	13	Response Time	<123.2 milliseconds to reach 63.2 full scale output																		
Analog Inputs	14	Input Signals All ranges in DC	<table border="1"> <thead> <tr> <th>Input</th> <th>Impedance (max)</th> </tr> </thead> <tbody> <tr> <td>0,0.2-1mA</td> <td>5kΩ</td> </tr> <tr> <td>0,1-5mA</td> <td>1kΩ</td> </tr> <tr> <td>0,2-10mA</td> <td>500Ω</td> </tr> <tr> <td>0,4-20mA</td> <td>250Ω</td> </tr> <tr> <td>0,10-50mA</td> <td>100Ω</td> </tr> </tbody> </table>	Input	Impedance (max)	0,0.2-1mA	5kΩ	0,1-5mA	1kΩ	0,2-10mA	500Ω	0,4-20mA	250Ω	0,10-50mA	100Ω						
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			0-100mV	5MΩ																	
			0-200mV	5MΩ																	
			0-500mV	5MΩ																	
			0-1V	5MΩ																	
			0.25-1.25V	5MΩ																	
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			0.2-1V	50Ω																	
			0-100mV	5Ω																	
			0-10mV	0.5Ω																	
			16	Accuracy	≤ ±0.1% of span (≤±0.016mA)																
17	Hysteresis	≤ ± 0.2% of span (≤±0.032mA)																			
18	Repeatability	≤ ± 0.2% of span (≤±0.032mA)																			
19	Linearity	≤ ± 0.2% of span (≤±0.032mA)																			
20	Current Limiting	Output limited to 27-30mA when input overdriven																			

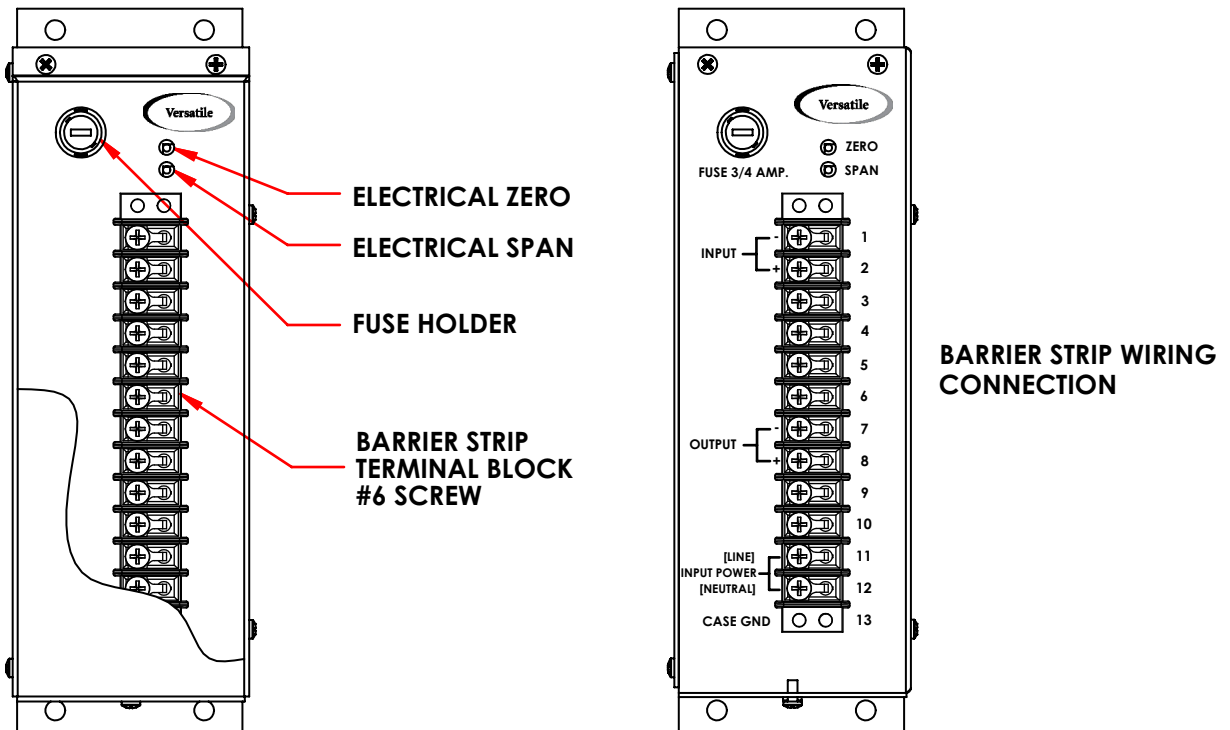
# Model ASC-1302 Signal Isolator

## Outline and Mounting Dimensions



NOTES:  
 WEIGHT: 2.0 KG +/- 10%  
 MATERIALS: CASE STEEL PAINTED BLACK  
 DIMENSIONS: INCHES

## Connection Diagrams



# Ordering Information

## ASC-1302

### Series

ASC-1302	ASC-1302
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### Input

0, 0.2-1mADC	A
0, 1-5mADC	B
0, 2-10mADC	C
0, 4-20mADC	D
0, 10-50mADC	E
0-100mVDC	F
0-200mVDC	G
0-500mVDC	H
0-1VDC	I
0.25-1.25VDC	J
0, 1-5VDC	K
0, 2-10VDC	L

### Output

10-50mADC	1
4-20mADC	2
2-10mADC	3
1-5mADC	4
0.2-1mADC	5
2-10VDC	6
1-5VDC	7
0.2-1VDC	8
0-100mVDC	9
0-10mVDC	10

### Output Load

Standard	A
High Load	B

### Power Supply

115 Vac $\pm$ 20%	1
48 Vdc $\pm$ 10%	2

