






- HIGH ACCURACY 0.05% 
- 3 PORT GALVANIC ISOLATION 
- DIN RAIL OR SURFACE MOUNT 
- USER SELECTABLE INPUT AND OUTPUT 
- AC OR DC POWERED 



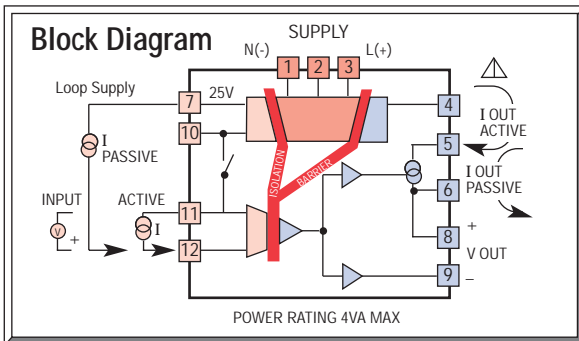
## LINE POWERED DC - DC ISOLATOR/CONVERTER SEM1100

### INTRODUCTION

The **SEM1100** is an isolating converter that accepts most common high level process signals (current and voltage), isolates them electrically and physically, and converts them to another process signal. It is also possible to have voltage and current outputs simultaneously from a single input.

The isolator is available in AC and DC powered versions, both generating loop excitation for input and output loops at the same time.

Zero and span adjustment potentiometers are conveniently situated on the front panel together with a power ON LED. Configuration (factory set if specified) can easily be changed by means of internal switches and the use of suitable equipment.



### APPROVALS

Designed and manufactured under a Quality Management System to BS.EN. ISO 9001.

EMC Emissions	BS EN 50081
Susceptibility	BS EN 50082
Electrical Safety	UL 508 BS EN 61010-1

### MECHANICAL

Mounting	DIN rail or Surface Mount
Ambient	32-122°F; 10-95% RH non-condensing
Connections	Captive terminal screws
Cable size	12 AWG Solid/14 AWG Stranded
Flammability	UL94: V-0; VDE 0304 STEP 11b

### SPECIFICATION @ 68°F

#### INPUT

**Current** 4-20, 0-20mA Active or Passive (40mA max)  
**Voltage** 0-100mV, 0-1, 0-5, 0-10V.  
 or 20-100mV, 0.2-1, 1-5, 2-10V (20V max)

#### Selection

Internal switches

#### Impedance

Voltage > 1M ohm  
 Current < 50 ohm

#### Protection

Reverse connection / over voltage

#### Loop Supply

25V @ 25mA Nominal (available for input transmitter 27 V max)

#### OUTPUT

**Current** 4-20, 0-20mA Active or Passive  
**Voltage** 0-1, 0-5, 0-10 Volts2  
 0.2-1, 1-5, 2-10 Volts3

#### Selection

Internal switches

#### Load

Current 0 to 1 K ohm  
 Voltage Max current 5 mA

#### Linearity

0.05% FRO

#### Stability

100 ppm/°F

#### Notes

1. Current and voltage outputs are not isolated from each other
2. Available simultaneously with 0-20mA output
3. Available simultaneously with 4-20mA output

### GENERAL SPECIFICATION

<b>Supply</b>	90-253 V AC 50/60 Hz or 20-35 V DC
<b>Power Consumption</b>	4 Watt Max
<b>Indication</b>	Power on LED
<b>Response time</b>	< 100mS for 70% of final reading.
<b>Protection</b>	Internal Fuse 500mA (T)
<b>Isolation Input/Output Supply</b>	500 V DC (flash tested @ 1kV) Flash tested @ 3kV



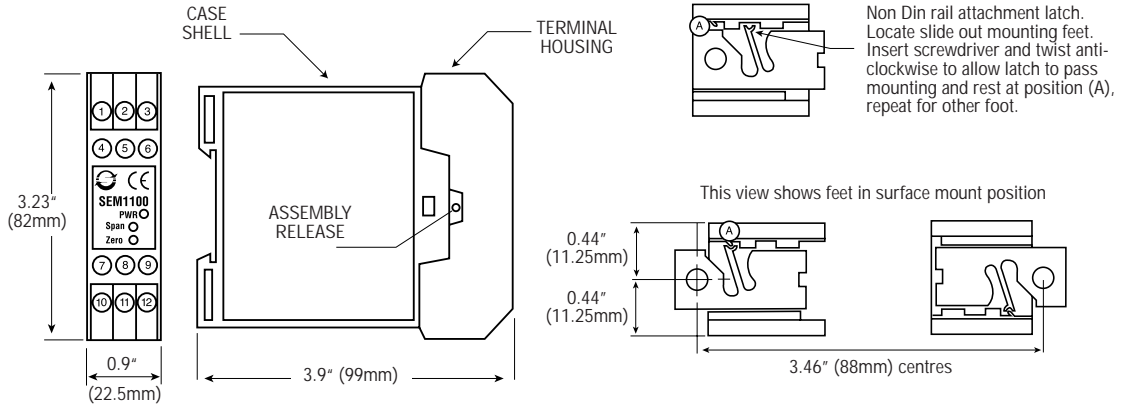
## STATUS INSTRUMENTS INC.

PO Box 548, 456 Park Ave., Scotch Plains, NJ 07076  
 Phone: (800) 700-3272 Fax: (800) 700-5468 (US & CA only)  
 Phone: (908) 490-0232  
 Email: rc@statinst.com Internet Address: www.statinst.com

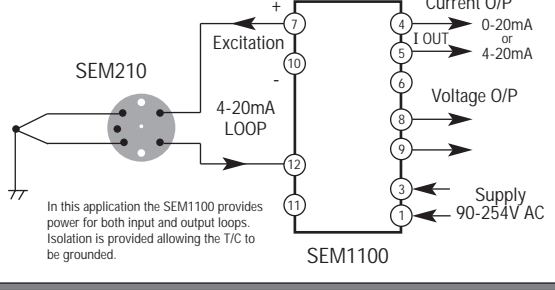


SEM 1100 6.02/PDF

**MECHANICAL DETAILS** weight 4.5oz (125g)



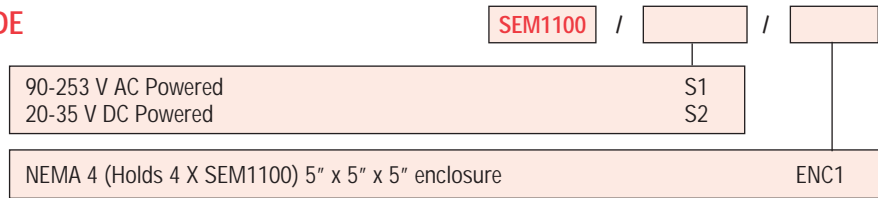
**TYPICAL APPLICATION**



**CONFIG. RANGES AVAILABLE**

INPUT		OUTPUT	
4-20mA Passive		VOLTAGE	CURRENT
4-20mA Active		0.0-1V	0-20mA
0-20mA Passive		0.2-1V	4-20mA
0-20mA Active		0.0-5V	0-20mA
0-100mV		1-5V	4-20mA
20-100mV		0-10V	0-20mA
0.0-1V		2-10V	4-20mA
0.2-1V			
0.0-5V			
1-5V		Default range:-	
0-10V		4-20mA Input	
2-10V		Output 4-20mA or 1-5V	

**ORDER CODE**



**LOCAL REPRESENTATION**



**STATUS INSTRUMENTS INC.**

PO Box 548, 456 Park Ave., Scotch Plains, NJ 07076  
 Phone: (800) 700-3272 Fax: (800) 700-5468 (US & CA only)  
 Phone: (908) 490-0232  
 Email: rc@statinst.com Internet Address: www.statinst.com



Every effort has been taken to ensure the accuracy of this specification, however we do not accept responsibility for damage, injury, loss or expense resulting from errors and omissions, and we reserve the right of amendment without notice.