



**OUTPUT**

•DC Current: 0 – 20mA DC

Minimum span: 1mA

Zero suppression/elevation: max. 1.5 times span

Load resistance: output drive 15V maximum

Output	Load Resistance
4 – 20mA	: 750 ( $\Omega$ maximum)
2 – 10mA	: 1500
1 – 5mA	: 3000
0 – 20mA	: 750
0 – 16mA	: 900
0 – 10mA	: 1500
0 – 1mA	: 15k

•DC Voltage: -10 – +12V DC

Minimum span: 5mV

Zero suppression/elevation: max. 1.5 times span

Load resistance: output drive 1mA maximum; at  $\geq 0.5V$

Output	Load Resistance
0 – 10mV	: 10k ( $\Omega$ minimum)
0 – 100mV	: 100k
0 – 1V	: 1000
0 – 10V	: 10k
0 – 5V	: 5000
1 – 5V	: 5000

**INSTALLATION**

**Power input**

**AC:** operational voltage range 85 – 264V (90 – 264V for UL);  
47 – 66 Hz; approx. 3VA at 100V  
approx. 4VA at 200V  
approx. 5VA at 264V

**DC:** operational voltage range for R: 24V  $\pm 10\%$ , R2: 11 – 27V, or P: 85 – 150V (110V  $\pm 10\%$  for UL);  
ripple 10% p-p max.; approx. 3W

**Operating temperature:** -5 to +55°C (23 to 131°F)

**Operating humidity:** 30 to 90% RH (non-condensing)

**Mounting:** surface or DIN rail

**Dimensions:** W23xH76xD124 mm (0.91"x2.99"x4.88")

See General Spec. Sheet Figure A-1.

**Weight:** 150 g (0.33 lbs)

**Terminal assignment:** See General Spec. Sheet Figure B-1.

**PERFORMANCE in percentage of span**

**Accuracy:**  $\pm 0.2\%*$

**Temp. coefficient:**  $\pm 0.015\%/^{\circ}C$  ( $\pm 0.008\%/^{\circ}F$ )\*

**Response time:**  $\leq 0.5$  seconds (0 – 90%)  
approx. 25 milliseconds with option /K

**Burnout response:**  $\leq 10$  seconds

**Line voltage effect:**  $\pm 0.1\%$  over voltage range

**Insulation resistance:**  $\geq 100M\Omega$  with 500V DC

**Dielectric strength:** 2000V AC @1 minute  
(input to output to power to ground)

\*Refer to 'Cu Input' for the input code C.

**STANDARDS & APPROVALS**

**CE conformity:** EMC Directive (89/336/EEC)

EMI EN61000-6-4

EMS EN61000-6-2

Low Voltage Directive (73/23/EEC)

EN61010-1

Installation category II

Pollution degree 2

Max. operating voltage 300V

Input or output to power – Reinforced insulation

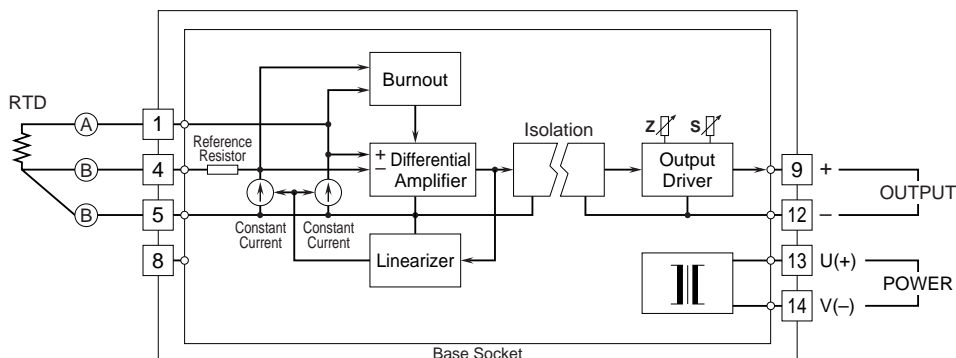
Input to output – Basic insulation

**Approval:** UL/C-UL nonincendive

Class I, Division 2, Groups A, B, C, and D (UL 1604, CAN/CSA-C22.2 No.213)

UL/C-UL general safety requirements (UL 3111-1, CAN/CSA-C22.2 No.1010-1)

**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Specifications subject to change without notice.

## Cu INPUT

### INPUT

#### Sensing current

RESISTANCE SPAN	SENSING CURRENT
$140\Omega \leq \text{Span} \leq 300\Omega$	1mA
$12\Omega \leq \text{Span} < 140\Omega$	2mA
$8\Omega \leq \text{Span} < 12\Omega$	3mA
$3.5\Omega \leq \text{Span} < 8\Omega$	5mA

**Maximum leadwire resistance:** 200 $\Omega$  or the value calculated using the equation below, whichever is smaller.

$$\text{Leadwire resistance } (\Omega) = \frac{2500 - 100\% \text{ resistance } (\Omega) \times \text{Sensing current (mA)}}{3}$$

#### Usable range:

$$3.5\Omega \leq \text{Resistance span} \leq 300\Omega$$

$$100\% \text{ resistance } (\Omega) < \frac{2500 - 3 \times \text{Leadwire resistance } (\Omega)}{\text{Sensing current (mA)}}$$

### PERFORMANCE

#### Accuracy

Resistance span  $\geq 20\Omega$ :  $\pm 0.2\%$

Otherwise use the equation below:

$$\text{Accuracy } (\%) = \frac{0.02 (\Omega)}{\text{Resistance span } (\Omega)} \times 100 + 0.1 (\%) \times \frac{40\text{mV}}{\text{Resistance span } (\Omega) \times \text{Sensing current (mA)}}$$

#### Temperature coefficient

Resistance span ( $\Omega$ )  $\times$  Sensing current (mA)  $\geq 40$  (mV):  $\pm 0.015\%/^{\circ}\text{C}$

Otherwise use the equation below:

$$\text{Temperature coefficient } (\%/^{\circ}\text{C}) = 0.015 (\%/^{\circ}\text{C}) \times \frac{40\text{mV}}{\text{Resistance span } (\Omega) \times \text{Sensing current (mA)}}$$