



**INPUT & OUTPUT****INPUT**

• **DC Current:** 0 – 50mA DC; shunt resistor attached to input terminals (100Ω, 0.5W)

**Operational range:** 0 – 70mA DC

**Minimum span:** 2mA

**Zero suppression:** available

• **DC Voltage:** -10 – +10V DC

**Operational range:** -11.5 – +11.5V DC

**Minimum span:** 10mV for S1; 100mV for S2

**Zero suppression/elevation:** available

**OUTPUT**

• **DC Current:** 0 – 20mA DC

**Operational range:** 0 – 24mA DC

**Minimum span:** 1mA

**Zero suppression:** available

**Load resistance:** output drive 15V maximum  
(e.g. 4 – 20mA: 750Ω [15V/20mA])

• **DC Voltage:** -2.5 – +2.5V DC for V1;

-10 – +10V DC for V2

**Operational range:** -3 – +3V DC for V1;

-11.5 – +11.5V DC for V2

**Minimum span:** 250mV for V1; 1V for V2

**Zero suppression/elevation:** available

**Load resistance:** output drive 1mA maximum  
(e.g. 1 – 5V: 5000Ω [5V/1mA])

**INSTALLATION****Power input**

**AC:** operational voltage range 85 – 264V  
(90 – 264V for UL);

47 – 66 Hz, approx. 2.3VA

**DC:** operational voltage range for R: 24V ±10%  
or P: 85 – 150V (110V ±10% for UL);  
approx. 0.9W (ripple 10% p-p max.)

**Operating temperature:** -30 to +60°C (-22 to +140°F)

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

**Mounting:** surface or DIN rail

**Dimensions:** W23×H76×D124 mm (0.91"×2.99"×4.88")  
See General Spec. Sheet Figure A-2.

**Weight:** 120 g (0.26 lbs)

**Terminal assignment:** See General Spec. Sheet Figure B-2.

**PERFORMANCE**

**Accuracy:** input accuracy + output accuracy

**Input accuracy\*:** (% of input range)

-1 – +1V : ≤ ±0.01 (%)

-10 – +10V : ≤ ±0.01

0 – 50mA : ≤ ±0.01\*\*

(e.g. 1 – 5V: 0.05% [20/4\*0.01])

**Output accuracy\*:** ≤ ±0.01% of output range

\*Inversely proportional to the span

\*\*Except the accuracy of input resistor

**Temp. coefficient**

(at -5 to +55°C [23 to 131°F] of I/O range)

**Input:** ±0.008%/°C (±0.005%/°F) with current  
±0.002%/°C (±0.001%/°F) with voltage

**Output:** ±0.013%/°C (±0.007%/°F)

**Response time:** ≤0.9 seconds (0 – 90%)

**Line voltage effect:** ±0.1% over voltage range

**Insulation resistance:** ≥100MΩ with 500V DC

**Dielectric strength:** 2000V AC @1 minute

(input to output to power to ground)

**STANDARDS & APPROVALS**

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

EMI EN61000-6-4

EMS EN61000-6-2

Low Voltage Directive (73/23/EEC)

Installation category II

Pollution degree 2

Max. operating voltage 300V

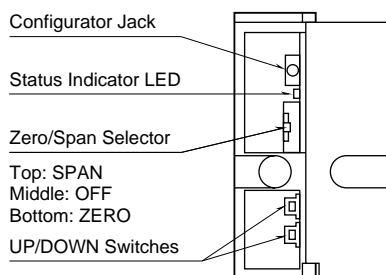
Input or output to power – Reinforced insulation

Input to output – Basic insulation

**Approval:** UL/C-UL nonincendive Class I, Division 2, Groups A, B, C, and D hazardous locations (UL 1604, CAN/CSA-C22.2 No.213); UL/C-UL general safety requirements (UL 3111-1, CAN/CSA-C22.2 No.1010-1)

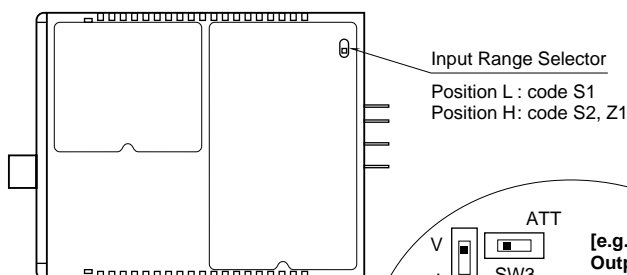
## FRONT & SIDE VIEWS

### FRONT VIEW (with cover open)

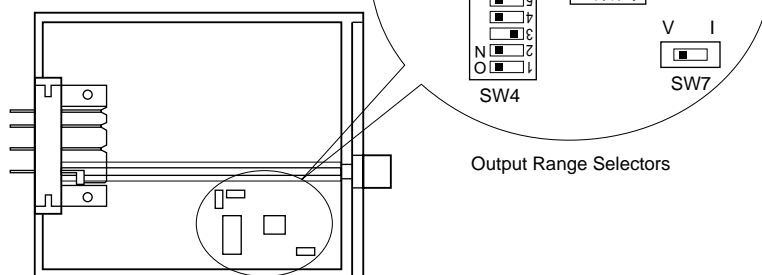


The front cover cannot be turned open by 180 deg. when there is no extra space between units.

### RIGHT SIDE VIEW



### LEFT SIDE VIEW (with cover removed)



**Manual zero/span adjustments:**  $\pm 5\%$  (set to 0% and 100% respectively at factory)

#### Zero/span selector

**ZERO:** UP/DOWN switches usable for zero adjustment.

**OFF:** UP/DOWN switches unavailable.

**SPAN:** UP/DOWN switches usable for span adjustment.

#### UP/DOWN switches

**UP:** Pressing UP increases adjusted values.

**DOWN:** Pressing DOWN decreases adjusted values.

(Press both switches at once for resetting zero/span adjustments.)

**Input range selector:** switching input range between S1 and S2 ranges. Bottom position for current (Z1).

#### Output range selectors

	SW2				SW3
	1	2	3	4	
V1	OFF	OFF	ON	ON	Not ATT
V2	OFF	OFF	ON	ON	Not ATT
Z1	ON	ON	OFF	OFF	Not ATT

	SW4							
	1	2	3	4	5	6	7	8
V1	ON	ON	OFF	ON	ON	*	ON	OFF
V2	ON	OFF	ON	OFF	ON	*	ON	OFF
Z1	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF

	SW6		SW7	
	V	I	V	I
V1	ON	OFF	ON	OFF
V2	ON	OFF	ON	OFF
Z1	OFF	ON	OFF	ON

\*Don't care.

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

