

SIGNAL TRANSMITTER

(isolated 4 outputs)

MODEL **99VS4**

MODEL & SUFFIX CODE SELECTION

99VS4-□□□□□□

MODEL _____
 INPUT _____
Current **Voltage**
A : 4 – 20mA DC **1** : 0 – 10mV DC
A1: 4 – 20mA DC* **15**: 0 – 50mV DC
B : 2 – 10mA DC **16**: 0 – 60mV DC
C : 1 – 5mA DC **2** : 0 – 100mV DC
D : 0 – 20mA DC **3** : 0 – 1V DC
E : 0 – 16mA DC **4** : 0 – 10V DC
F : 0 – 10mA DC **5** : 0 – 5V DC
G : 0 – 1mA DC **6** : 1 – 5V DC
H : 10 – 50mA DC **0** : Specify voltage
J : 0 – 10μA DC
K : 0 – 100μA DC
Z : Specify current
 *50Ω input resistance for Code A1

OUTPUT 1 _____
Current **Voltage**
A : 4 – 20mA DC **1** : 0 – 10mV DC
B : 2 – 10mA DC **2** : 0 – 100mV DC
C : 1 – 5mA DC **3** : 0 – 1V DC
D : 0 – 20mA DC **4** : 0 – 10V DC
E : 0 – 16mA DC **5** : 0 – 5V DC
F : 0 – 10mA DC **6** : 1 – 5V DC
G : 0 – 1mA DC **0** : Specify voltage
Z : Specify current

OUTPUT 2 _____
 Same range availability as Output 1

OUTPUT 3 _____
 Same range availability as Output 1

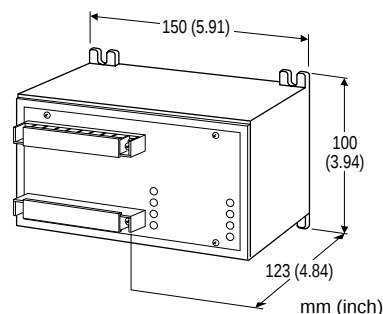
OUTPUT 4 _____
 Same range availability as Output 1

POWER INPUT _____
AC Power **DC Power**
B : 100V AC **G** : 200V AC **S** : 12V DC
C : 110V AC **H** : 220V AC **R** : 24V DC
D : 115V AC **J** : 240V AC **V** : 48V DC
F : 120V AC **P** : 110V DC

ORDERING INFORMATION

Specify code number and variables.

- **Code number** (e.g. 99VS4-6AAAA-B)
- **Special input and output ranges** (For codes Z & 0)



Functions & Features

- Converting a DC input into 4 isolated process signals
- 4 – 20mA range can be selected for all four outputs
- Zero & span are independently adjustable

GENERAL SPECIFICATIONS

Construction: stand-alone; front terminals

Connection: M3 screw terminals (nickel-plated steel; torque ≤0.8 N·m)

Housing material: flame-resistant resin (black)

Isolation: input to output 1 to output 2 to output 3 to output 4 to power

Overrange output: approx. -10 – +120% at 1 – 5V

Front adjustments: zero and span; ±5%

INPUT & OUTPUT

INPUT

• **DC Current:** input resistor incorporated;
 Input Resistance ≤ 0.25W ÷ (Input Current)²

Input resistance: For resistance values other than listed below, specify when ordering.

Input	Input Resistance
4 – 20mA	: 250 (Ω) (50Ω for Code A1)
2 – 10mA	: 500
1 – 5mA	: 1000
0 – 20mA	: 50
0 – 16mA	: 62.5
0 – 10mA	: 100
0 – 1mA	: 1000
10 – 50mA	: 100
0 – 10μA	: 1000
0 – 100μA	: 1000

•DC Voltage: -300 – +300V DC

Minimum span: 3mV

Zero suppression/elevation: max. 1.5 times span

Input resistance

Input Span	Input Resistance
3 – 10mV	: 10k (Ω minimum)
10 – 100mV	: 10k
0.1 – 1V	: 100k
$\geq 1V$	: 1M

■OUTPUTS (four)

•DC Current: 0 – 20mA DC

Minimum span: 1mA

Zero suppression/elevation: max. 1.5 times span

Load resistance: output drive 12V max. for Output

1 & 3; 7V max. for Output 2 & 4

Output	Ch.1 & 3	Ch. 2 & 4
4 – 20mA	: 600	350 (Ω max.)
2 – 10mA	: 1200	700
1 – 5mA	: 2400	1400
0 – 20mA	: 600	350
0 – 16mA	: 750	430
0 – 10mA	: 1200	700
0 – 1mA	: 12k	7000

•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 (Ω minimum)
0 – 100mV	: 100k
0 – 1V	: 1000
0 – 10V	: 10k
0 – 5V	: 5000
1 – 5V	: 5000

INSTALLATION

Power input

AC: rating $\pm 10\%$, 50/60 ± 2 Hz, approx. 6VA

DC: rating $\pm 10\%$, or 85 – 150V for 110V rating
(ripple 10% p-p max.)
approx. 6W (250mA at 24V)

Operating temperature: -5 to +60°C (23 to 140°F)

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

Mounting: surface or DIN rail

Dimensions: W150×H100×D123 mm (5.31"×3.94"×4.84")

Weight: 800 g (1.76 lbs)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.1\%$

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

Response time: ≤ 0.5 seconds (0 – 90%)

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

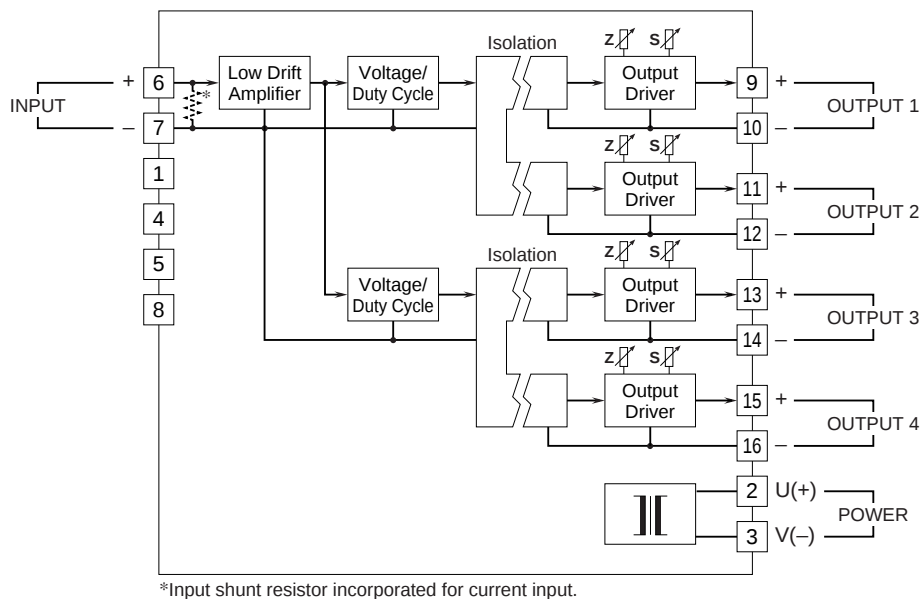
Insulation resistance: $\geq 100M\Omega$ with 500V DC

Dielectric strength: 2000V AC @1 minute

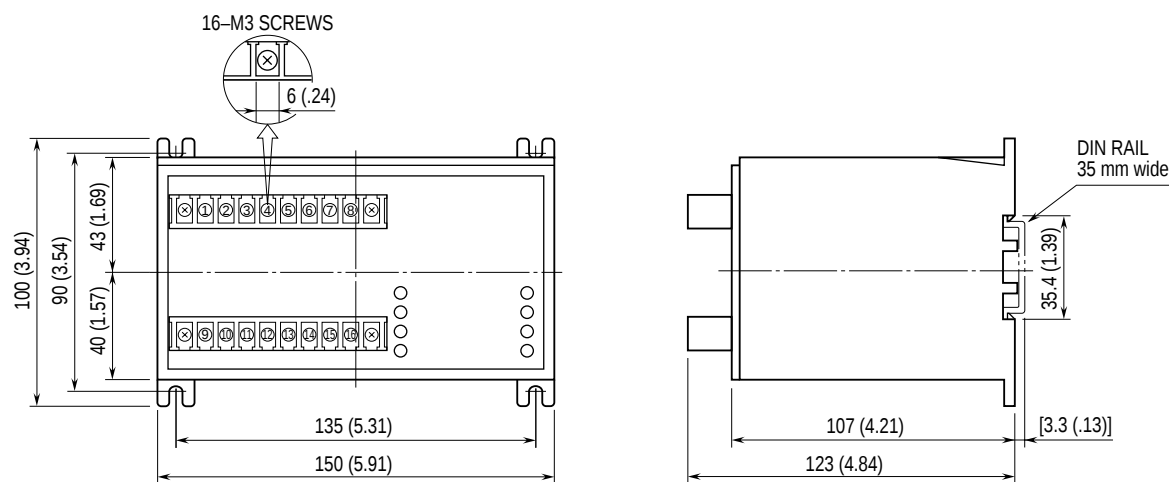
(input to output 1 or output 2 or output 3
or output 4 to power to ground)

1000V AC @ 1 minute (output 1 to output
2 to output 3 to output 4)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENT mm (inch)



•When mounting, no extra space is needed between units.

MOUNTING REQUIREMENTS mm (inch)

