

Space-saving Dual Output Signal Conditioners *Mini-MW Series*

SIGNAL TRANSMITTER

MODEL **W2VS**

MODEL & SUFFIX CODE SELECTION

W2VS-□□□-□□□

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	4W : -10 – +10V DC
J : 0 – 10µA DC	5W : -5 – +5V DC
K : 0 – 100µA DC	0 : Specify voltage
GW : -1 – +1mA DC	
FW : -10 – +10mA 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	4W : -10 – +10V DC
Z : Specify current	5W : -5 – +5V DC
	0 : Specify voltage

OUTPUT 2 _____

Same range availability as Output 1

Y : None

POWER INPUT _____

AC Power	DC Power
M2 : 100 – 240V AC	R : 24V DC
	R2 : 11 – 27V DC**
	P : 110V DC

**CE or UL not available

OPTIONS (none or multiple selections) _____

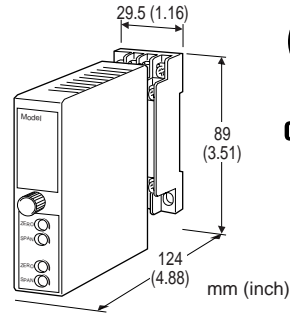
/K : Fast response

STANDARDS & APPROVALS (must be specified) _____

/N : Without CE or UL

/CE : CE marking

/UL : UL approval (CE marking)



Functions & Features

- Converting a DC input
- Two independent output ranges
- Universal power input
- Fast response type available
- High-density mounting
- CE marking
- UL approval

Typical Applications

- Isolation between control room and field instrumentation

ORDERING INFORMATION

Specify code number and variables. When the user requires a current and a voltage output, specify the current to be the Output 1 which allows a greater load.

- **Code number** (e.g. W2VS-6A6-M2/K/CE)
- **Special input and output ranges** (For codes Z & 0)

GENERAL SPECIFICATIONS

Construction: plug-in
Connection: M3 screw terminals (torque 0.8 N·m)
Housing material: flame-resistant resin (black)
Isolation: input to output 1 to output 2 to power
Overrange output: approx. -10 – +120% at 1 – 5V
Front adjustments: zero and span; ±5%

INPUT & OUTPUT

INPUT

- **DC Current:** shunt resistor attached to input terminals (0.5W)
 - 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 |
| -1 – +1mA | : 1000 |
| -10 – +10mA | : 100 |

•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
≥1V	: 1M

■OUTPUTS (two)

•DC Current: 0 – 20mA DC
 Minimum span: 1mA
 Zero suppression/elevation: max. 1.5 times span
 Load resistance: output drive 15V max. for Output 1;
 7V max. for Output 2

Output	Ch.1 L.R.	Ch.2 L.R.
4 – 20mA	: 750	350 (Ω max.)
2 – 10mA	: 1500	700
1 – 5mA	: 3000	1400
0 – 20mA	: 750	350
0 – 16mA	: 900	430
0 – 10mA	: 1500	700
0 – 1mA	: 15k	7000

•DC Voltage: -10 – +12V DC (up to +10V for Out. 2)
 Minimum span: 5mV
 Zero suppression/elevation: max. 1.5 times span
 Load resistance: output drive 1mA maximum at ≥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
-10 – +10V	: 10k
-5 – +5V	: 5000

INSTALLATION

Power input

AC: operational voltage range 85 – 264V (90 – 264V for UL); 47 – 66 Hz; approx. 4VA at 100V; approx. 5VA at 200V approx. 6VA at 264V
 DC: operational voltage range for R: 24V ±10%, R2: 11 – 27V, or P: 85 – 150V (110V ±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: W29.5×H89×D124 mm (1.16"×3.51"×4.88")
 See General Spec. Sheet Figure A-1.
 Weight: 200 g (0.44 lbs)
 Terminal assignment: See General Spec. Sheet Figure B-2.

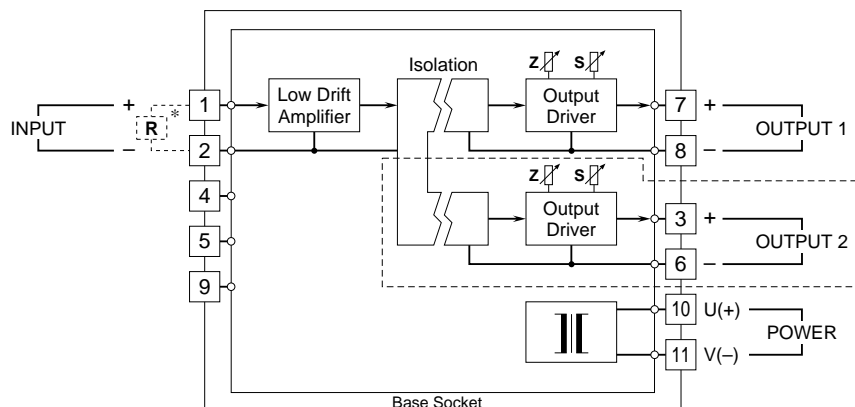
PERFORMANCE in percentage of span

Accuracy: ±0.1%
 Temp. coefficient: ±0.015%/°C (±0.008%/°F)
 Response time: ≤0.5 seconds (0 – 90%)
 approx. 25 milliseconds with option /K
 Line voltage effect: ±0.1% over voltage range
 Insulation resistance: ≥100MΩ with 500V DC
 Dielectric strength: 2000V AC @1 minute (input to output 1 to output 2 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)
 Instal. category II; Pollution degree 2
 Max. operating voltage 300V
 Input or output 1 or output 2 to power – Reinforced insulation
 Input to output 1 to output 2 – 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)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Input shunt resistor attached for current input.
 Remark: The section enclosed by broken line is only with 2nd output option.

Specifications subject to change without notice.