Dual-output Potentiometer Converter

WSPF-MSW

This compact plug-in signal converter connects with 3-wire type potentiometer, and provides DC voltage or current.
This converter has Isolator built-in, also has burnout protection circuit as standard equipment.

Features

★ Fine Zero & span adjustment by 25 turn trimmer
★ Wide zero & span adjustment
★ Safe design by dielectric strength of 3000Vac
★ 5 years warranty, long life
★ CE approved
★ Burnout protection circuit built-in

Ordering code

WSPF- M S W - □□ □ □ - □□

Code	Rated input (Total Resistance)	Span Ad. Range	Zero Ad. Range
30	50ΩFS to 500ΩFS	50 to 100% FS	0 to 50% FS
31	501ΩFS to 10kΩFS		
19	0 to 343Ω (1kΩFS)	±20% FS (FS = 343Ω)	±20% FS (FS = 343Ω)
99 ＊1	Contact us for other than the above		

Code	Output 1	Allowable Load Resistance
A	4 to 20mAdc	750Ω or less
B	1 to 5mAdc	3kΩ or less
D	0 to 1mAdc	15kΩ or less
E	0 to 10mAdc	1.5kΩ or less
G	0 to 20mAdc	750Ω or less
H	1 to 5Vdc	1kΩ or more
J	0 to 10mVdc	10kΩ or more
K	0 to 100mVdc	100kΩ or more
L	0 to 1Vdc	1kΩ or more
N	0 to 5Vdc	1kΩ or more
P	0 to 10Vdc	2kΩ or more
R	±10Vdc	2kΩ or more
S ＊1	Contact us for other than the above Current output 20mA or less Voltage output 10V or less	

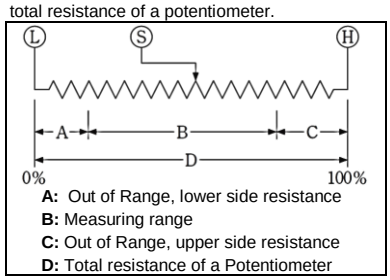
Code	Output 2	Allowable Load Resistance
A	4 to 20mAdc	550Ω or less
D	0 to 1mAdc	11kΩ or less
G	0 to 20mAdc	550Ω or less
H	1 to 5Vdc	1kΩ or more
L	0 to 1Vdc	1kΩ or more
N	0 to 5Vdc	1kΩ or more
P	0 to 10Vdc	2kΩ or more
R	±10Vdc	2kΩ or more
S ＊1	Contact us for other than the above Current output 20mA or less Voltage output 10V or less	

Code	Power Supply
A	100 to 240Vac ±10% 50/60Hz
D	24Vdc ±10%
＊2	10.8 to 30Vdc
8	110Vdc ±10%

Code	Test Report
X	None
T	With Test report

★ Note: Zero & Span Adjustment

The measuring range must be 50% or more of total resistance of a potentiometer.



A: Out of Range, lower side resistance
B: Measuring range
C: Out of Range, upper side resistance
D: Total resistance of a Potentiometer

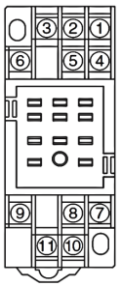
A procedure for adjustment, adjust Zero first, and then adjust the Span.

＊**1**･･･CE approval do not adapt input range code 99 and output range code S.
＊**2**･･･CE approval do not adapt when power supply is 10.8Vdc to 30Vdc.

Specifications

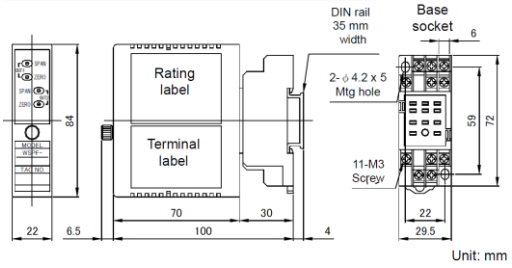
Input signal	3-wire type potensiometer
Accuracy	±0.1% FS (at 23°C)
Response time	Approx. 25ms (0 to 90%)
Allowable load	Current output First output : 15V or less of voltage drop between output Second output : 11V or less of voltage drop between output Voltage output Load current 5mA or less *1μA or less if the output is less than 1V FS
Span adjustment	50 to 100% of rated input (25 turn trimmer) (±20% for input 19)
Zero adjustment	0 to 50% of span (±20% for input 19)
Operating temperature	-5 to +55°C
Operating relative humidity	90% or less (Non-condensing)
Temperature coefficient	±0.015% of span per °C
Burnout protection	Upscale / downscale *Please specify when you order for downscale
Isolation	Between input, output, and power supply
Insulation resistance	100MΩ or more with 500Vdc megger Between input, output, and power supply terminal
Dielectric strength	3000Vac for 1 min between power supply and input/output terminal, 2000Vac for 1 min between input and output terminal
Power consumption	Approx. 5.6VA (AC), Approx. 88mA (DC)
Power supply variation	±0.1% FS (within the range of rated voltage)
Dimensions	84(H) X 29.5(W) X 106.5(D)mm
Weight	Approx. 150g
Structure	Plug-in (Body part and socket part)
Connection	M3 SEMS screw part of the base socket (Tightening torque 0.6N·m)
Mounting	DIN rail or wall surface
Case color and material	Ivory, ABS resin, flame retardant grade UL94V-0
EMC directive	EN61326-1, EN61010-1, EN IEC 63000 Installation category : II, Pollution degree : 2
Rated altitude	2000m or less

Terminal connections



No	Symbol		Description
1	INPUT	HIGH	Input
2	OUTPUT-2	+	No.2 Output
3	INPUT	SLIDE	Input
4		LOW	
5	OUTPUT-2	-	No.2 Output
6	NC		No connection
7	OUTPUT-1	+	No.1 Output
8	NC		No connection
9	OUTPUT-1	-	No.1 Output
10	POWER	U(+)	Power Supply
11		V(-)	

Demensions



Unit: mm

＊ **Specification is subject to change without notice**