

RESISTANCE/DC CONVERTER (R-TO-DC CONVERTER) WVP-RDD/RDS



50 (W) x 96 (H) x 125.5 (D) mm Approx. 400 g

This unit converts signals detected in the form of changes in resistance value into DC voltage or DC current signals. It allows users to choose from many outputs the optimum one for measurement control devices (such as computer), and provides an effective means for signal-level standardization and transmission. With its high reliability and easy-to-handle plug-in construction, the unit is suited for a wide range of applications. The type RDS has its input and output signals isolated using the highly reliable photocoupler method.

Features

- Wide variable ranges for Zero and Span, and easy-to-perform fine adjustment.
- Input and output can be isolated from each other by the highly reliable photocoupler method.
- Plug-in design enables mounting on DIN rails using a one-touch process.

Model WVP - - - -

RDD	Non-isolated	Response time 200 msec/(0-90%)
RDS	Isolated	Response time 25 msec/(0-90%)

Power Supply	
1	AC 100 V ± 10%, 50/60 Hz
2	AC 200 V ± 10%, 50/60 Hz
3	DC 24 V ± 10%
4	AC 110 V ± 10%, 50/60 Hz
5	AC 220 V ± 10%, 50/60 Hz

	Input Signal		
	Rated Input	Span Adjustment Range	Zero Adjustment Range
20	0-50 Ω	25-50 Ω	0-25 Ω
21	0-100 Ω	50-100 Ω	0-50 Ω
22	0-200 Ω	100-200 Ω	0-100 Ω
23	0-500 Ω	250-500 Ω	0-250 Ω
24	0-1 KΩ	0.5-1 KΩ	0-500 Ω
25	0-2 KΩ	1-2 KΩ	0-1 KΩ
26	0-5 KΩ	2.5-5 KΩ	0-2.5 KΩ
27	0-10 KΩ	5-10 KΩ	0-5 KΩ
99	Other than the above (Please consult with us.)		

Output Signal		
		Allowable Load Resistance
A	DC 4-20 mA	750 Ω or less
B	DC 1-5 mA	2 KΩ or less
C	DC 2-10 mA	1 KΩ or less
D	DC 0-1 mA	10 KΩ or less
E	DC 0-10 mA	1 KΩ or less
F	DC 0-16 mA	625 Ω or less
G	DC 0-20 mA	500 Ω or less
H	DC 1-5 V	2.5 KΩ or more
J	DC 0-10 mV	10 KΩ or more
K	DC 0-100 mV	100 KΩ or more
L	DC 0-1 V	500 Ω or more
N	DC 0-5 V	2.5 KΩ or more
P	DC 0-10 V	5 KΩ or more
R	DC ± 10 V	5 KΩ or more
S	Other than the above (Please consult with us.): Voltage output 10 V or less Current output 20 mA or less	

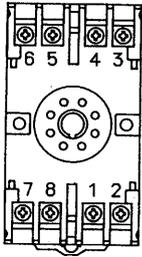
Specification

Input signal:	Resistance value (between 2 wires)
Output signal:	DC voltage, DC current
Accuracy:	$\pm 0.1\% \cdot fs$
Allowable load resistance:	For voltage output, use the converter with a load current of 2 mA or less (1 μA or less for an output below 1 V $\cdot fs$). For current output, use the converter with a voltage drop of 15 V or less between output terminals.
Span adjustment range:	50–100% of the rated input, using a multi-turn trimmer
Zero adjustment range:	0–50% of the rated input, using a multi-turn trimmer
Operating temperature and humidity:	-5 to +55°C, 90% RH or less (without condensation)
Influence of ambient temperature:	$\pm 0.2\% \cdot fs/10^\circ C$
Insulation resistance:	100 M Ω or more with a 500 VDC megger between the input/output terminal and power supply terminal, and between the input and output terminals (isolated type)
Dielectric strength:	2,000 VAC for 1 minute between the input and output terminals (isolated type), and between the input/output terminal and power supply terminal
Power consumption:	Approx. 4 VA (AC), Approx. 120 mA (DC)

Major Applications

- Measurement of the arm position of float-type level sensors.
- Issuance of alarms for abrupt changes in resistance value.
- Can also support needs for measuring low or high resistances.

Explanation of Terminals



No.	Symbol	Description
1	OUTPUT	+
2		-
3	INPUT	
4		
5		N.C.
6		N.C.
7	POWER	U (+)
8		V (-)