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

This manual-setting-type ratio bias setter delivers signals to which ratio and bias setting have been applied. The ratio and bias values can be freely set via digital switches located on the front panel.

Features

- Employs digital switches to facilitate setting work.
- Plug-in design allows maintenance without touching the connections.
- Type BRS and type BRC have their input and output signals isolated from each other, with a dielectric strength of 2,000 VAC.

Major Applications

- Control of chemical injection
- Air-fuel ratio control
- Blending systems

Model　WVP - ☐☐☐ - ☐☐ ☐☐ - ☐

BRD	Operation Expression	Non-isolated	Response time: 200 msec/(0%–90%)
BRS	$X_0 = K(X_i \pm B)$	Isolated	Response time: 25 msec/(0%–90%)
	Operation Expression		
BRC	$X_0 = K(X_i \pm B)$	Isolated	Response time: 25 msec/(0%–90%)

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

	Input Signal	
		Input Resistance
13	DC 0–5 V	1 MΩ
14	DC 1–5 V	1 MΩ
15	DC 0–10 V	1 MΩ
35	DC 0–20 mA	50 Ω
36	DC 4–20 mA	50 Ω
99	Other than the above (Please consult with us): Over 10 mV·fs up to 300 V·fs Over 10 µA·fs up to 20 mA·fs	

	Output Signal	
		Allowable Load Resistance
AN	DC 4–20 mA	750 Ω or less
GN	CD 0–20 mA	750 Ω or less
HN	DC 1–5 V	2.5 KΩ or more
NN	DC 0–5 V	2.5 KΩ or more
PN	DC 0–10 V	5 KΩ or more
SN	Other than the above, with forward characteristics (Please consult with us): Voltage output 10 V or less Current output 20 mA or less	
AR	DC 20–4 mA	750 Ω or less
GR	DC 20–0 mA	750 Ω or less
HR	DC 5–1 V	2.5 KΩ or more
NR	DC 5–0 V	2.5 KΩ or more
PR	DC 10–0 V	5 Ω or more
SR	Other than the above, with reverse characteristics (Please consult with us): Voltage output 10 V or less Current output 20 mA or less	

Specifications

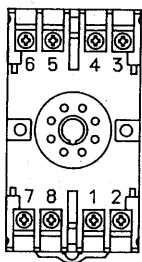|	
Input signal:	DC voltage, DC current
Output signal:	DC voltage, DC current
Ratio setting accuracy:	±0.5%
Bias setting accuracy:	±1.0%
Multipling accuracy:	±0.5% (when ratio = 1 and bias = 0%)
Accuracy:	±0.1%·fs (at 23°C)
Allowable load resistance:	For voltage output, use the unit with a load current of 2 mA or less (1 µA or less for an output below 1 V·fs). For current output, use the unit with a voltage drop of 15 V or less between output terminals.
Operating temperature and humidity:	-5 to +55°C, 90% RH or less (without condensation)
Influence of ambient temperature:	±0.2%·fs/10°C
Insulation resistance:	100 MΩ 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).
Zero & span adjustment:	±20%·fs each (multi-turn trimmer)

Setting Methods

Ratio Setting: Any ratio can be set from 0.1x up to 3.99x by means of 3-digit digital switches. The highest-order- digit switch is provided with a stopper, so that settings cannot be made in excess of 4.00. Although entry can be made from 0.01x, the specified performance will be satisfied only from 0.1x and up.

Bias Setting: Any bias can be set from -99 to +99% by means of a 1-digit digital switch for polarity and 2-digit digital switches for numbers.

Operation Expression

- WVP-BRD model and WVP-BRS model: $X_o = KX_i \pm B$
- WVP-BRC model: $X_o = K(X_i \pm B)$

Where X_o = Output signal
X_i = Input signal
K = Ratio (linear characteristic 0.1 to 3.99)
B = Bias (-99 to +99%)

Explanation of Terminals

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