

This compact plug-in converter (isolator) receives two analog input and outputs a signal in proportion to their sum or difference.  
For example, WSP-ADS/SBS can be used for addition of flow rates or the calculation of temperature differences, speed differences, etc.

## Features

- ★ Dielectric strength of 2000Vac between input, output and power supply
- ★ Both AC and DC power supply are available
- ★ Long operating time
- ★ Easy maintenance by plug-in structure
- ★ CE approved

## Ordering code

WSP- [ ] [ ] [ ] - [ ] [ ] [ ] - [ ] [ ]

Code	Model
ADS	Adder
SBS	Subtractor

Code	Input	Input Resistance
10	0 to 10mVdc	1MΩ
11	0 to 100mVdc	1MΩ
12	0 to 1Vdc	1MΩ
13	0 to 5Vdc	1MΩ
14	1 to 5Vdc	1MΩ
15	0 to 10Vdc	1MΩ
16	0 to 50mVdc	1MΩ
17	0 to 60mVdc	1MΩ
32	0 to 1mAdc	50Ω
33	0 to 10mAdc	50Ω
34	0 to 16mAdc	50Ω
35	0 to 20mAdc	50Ω
36	4 to 20mAdc	50Ω
99	Contact us for other than the above	
*1	Full Scale Range: Current input 1mA to 20mA Voltage input 10mV to 10V	

Code	Output	Allowable Load
A	4 to 20mAdc	750Ω or less
D	0 to 1mAdc Accuracy ±1.6% FS	15kΩ or less
G	0 to 20mAdc	750Ω or less
H	1 to 5Vdc	2.5kΩ or more
L	0 to 1Vdc	500Ω or more
N	0 to 5Vdc	2.5kΩ or more
P	0 to 10Vdc	10kΩ or more
S	Contact us for other than the above	
*1	Current output 20mA or less Voltage output 10V or less	

Code	Test Report
X	None
T	With Test report

Code	Power Supply
A	100 to 240Vac ±10% 50/60Hz
D	24Vdc ±10%
8	100 to 120Vdc ±10%

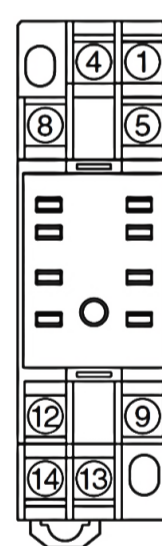
Adder(ADS) : K1 = 50 , K2 = 50  
 Subtractor(SBS) : K1 = 100 , K2 = 100  
 \* K1, K2 is the factory settings. It can't be changed after shipment.  
 Contact us for other than the above

\*1...CE approval do not adapt input range code 99 and output range code S.

## Specifications

<b>Equation</b>	<Adder> $Output = K1 / 100 \times Input1 + K2 / 100 \times Input2$ K1, K2 : Specified in the range of 0-100.0% (standard 50%)  <Subtractor> $Output = K1 / 100 \times Input1 - K2 / 100 \times Input2$ K1, K2 : Specified in the range of 0-100.0% (standard 100%)
<b>Accuracy</b>	±0.1% FS (at 23°C) *99, S code depends on span
<b>Response time</b>	Approx. 100ms ( 0 to 90%)
<b>Allowable load resistance</b>	Current output 15V or less of voltage drop Voltage output Load current 2mA or less For 1V FS or less of output the current is 1mA or less
<b>Zero &amp; span adjustment</b>	±10% FS (Front switch)
<b>Operating temperature</b>	-5 to +55°C
<b>Operating relative humidity</b>	90% or less (non-condensing)
<b>Temperature coefficient</b>	±0.015% FS of span per °C
<b>Isolation</b>	Between input, output, and power supply
<b>Insulation resistance</b>	100MΩ or more with a 500Vdc megger Between input, output, and power supply terminal
<b>Dielectric strength</b>	2000Vac for 1 minute
<b>Power consumption</b>	A : 100 to 240Vac ±10%      Approx. 5.5VA D : 24Vdc ±10%              Approx. 100mA 8 : 100 to 120Vdc ±10%      Approx. 25mA
<b>Power supply variation</b>	±0.1% FS (within the range of rated voltage)
<b>Dimensions</b>	84(H) X 23(W) X 106.5(D)mm
<b>Weight</b>	Approx. 150g
<b>Structure</b>	Plug-in
<b>Connection</b>	M3 SEMS screw part of the base socket
<b>Material of terminal screw</b>	Chromated iron
<b>Case color and material</b>	Ivory, heat-resistant ABS resin(94V-0)
<b>Applicable Directive</b>	EN61326-1, EN61010-1, EN IEC 63000 Installation category : II, Pollution degree : 2
<b>Mounting</b>	DIN rail or wall surface

## Terminal connections



No.	Signal	Description
1	No.1 INPUT(+)	No.1 Input
4	No.1 INPUT(-) No.2 INPUT(-)	
5	No.2 INPUT(+)	No.2 Input
8	NC	No connection
9	OUTPUT(+)	Output
12	OUTPUT(-)	
13	POWER U(+)	Power Supply
14	POWER V(-)	

\* Specification is subject to change without notice