

MULTI DIGITAL INDICATOR
INSTRUCTION MANUAL
WSI-3200

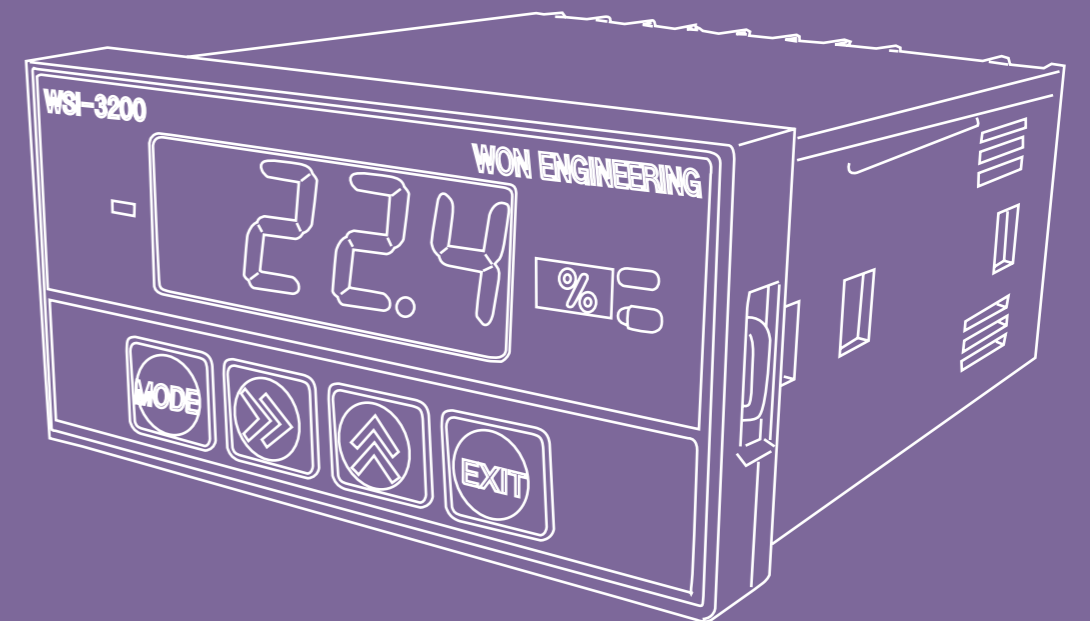




WON ENGINEERING.

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Preface

Thank you for purchasing our WSI-3200 made by Won Engineering Co., Ltd. This manual describes specifications and information for you to install and maintain the product. For any problem or question during use, contact our Sales Department of Head Office or local dealer.

Features

- It may receive various kinds of signals. (T/C, RTD, mA, mV, V, 2-Wire)
- It may include an insulated 4~20mA output and it is scalable.
- It may include 2Point Alarm outputs, that may be individually set at lower and upper limits, and available for 2 digit Dead Band setup.
- It has 2 types of Peak Hold functions.

Safety Precautions

- Warning:** Ignoring the warning may result in personal injury or property damage.
- Caution:** Ignoring the caution may result in damage or fault of the product.
- Warning**
 - Make wiring on contacts of the product under main power disconnected.
 - Do not remove the front board under power supply connected.
- Caution**
 - Be sure to make wiring according to the wiring method of contacts on this manual and the product label.
 - Do not disassemble, alter or repair the main body arbitrary. It may cause malfunction of the product.

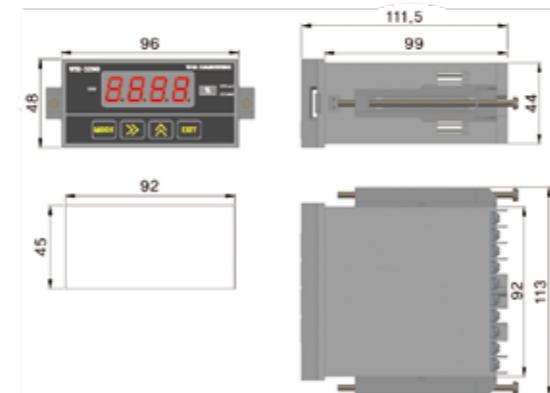
Order Code

WSI-3	-	0	0	0	-	1
Product Title		INPUT		OUTPUT		POWER
WSI-3		0	None	0	None	1
		2	2-Alarm	1	4~20mA	95~250V
		1	Other	2	Other	

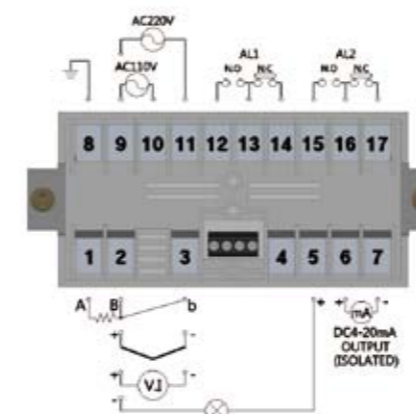
Product Specifications

Voltage / Power Consumption	AC110/220V (50~60Hz) ±10% / 4.0VA (option : available voltage)	
Display	-9999~9999, 7 Segment & 4 Digit	
Accuracy	±0.2% Full Scale, ±1 Digit (25°C ± 5°C)	
Input Impedance	V Type	1MΩ
	RTD, T/C Type	1MΩ
Sampling Cycle	V Type	200ms
	RTD, T/C Type	400ms
2-Wire Sensor Voltage	DC24V / 30mA (±5% or less)	
Temperature Coefficient	±0.015% / °C	
Insulation Resistance	Greater than 100MΩ with DC500V	
Service Temp./Humidity	-10~60°C / 90%	
Storage Temp./Humidity	-20~80°C / 95%	
Weight	Approx. 400g	
Fixing Method	Panel Mounting Type	

Outer Dimension



Wiring Diagram



- 1) Only when being used for mA, 2-Wire input, connected the accompanied '250Ω precise resistor' to the contacts 2 and 3.

Menu Setting 1

Check before Setting

1. Title of each Part



- ① Negative sign (-) display
- ② Display
- ③ Unit
- ④ Alarm status

2. Button

Button	Description	
	Enter into Menu Setup mode	
	On Menu Setup Mode	Move to the next menu
	On PV Display	Enter into Ground Setup mode
	On Menu Setup Mode	Go from respective menu to Edit mode
	On Edit Mode	Change digits of the current value
	Increase data by 1	
	Save the settings till now and exit	
	Cancel Holding while using Peak Holder function	

3. How to Setup

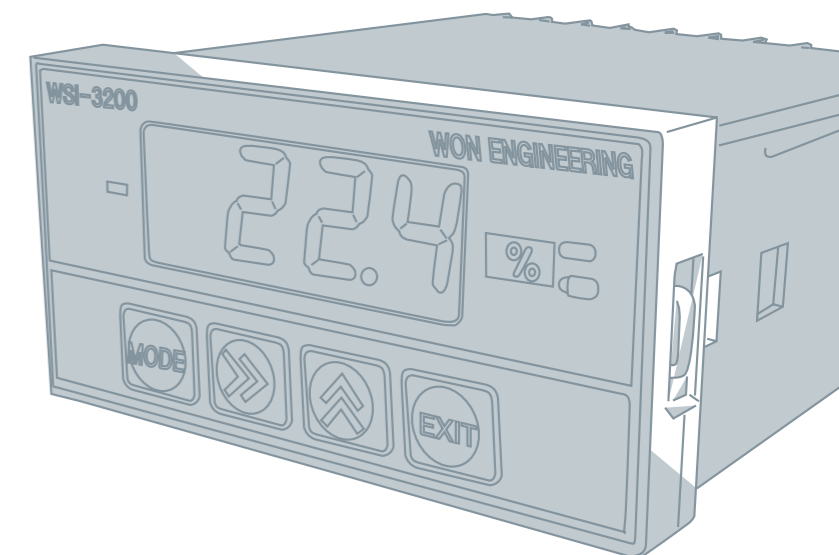
Mode	How to enter
Menu Setup Mode	With the current reading indicated (Press both buttons at the same time)
Ground Setup Mode (WSI-3200)	With the current reading indicated

1) Menu Setup

- ① Enter into Menu Setup Mode (▶+▲)
- ② Move to the menu to be change (MODE)
- ③ Enter into Edit Mode (▶)
- ④ Modify it with required value (▶, ▲)

2) Ground Setup

- ① Enter into Alarm Setup Mode (MODE)
- ② Move to the Alarm to be changed (MODE)
- ③ Enter into Edit Mode (▶)
- ④ Modify it with required value



Menu Setup 2

Menu Description and Flow Chart

1. Menu Setup Mode

No.	Display	Description	Move to
1	S-ād	Entered into Menu Setup Mode	
2	SEnS	Input Type Setting	Menu Setup 3
3	H-rn	Max Input Setup	Menu Setup 4
4	L-rn	Min Input Setup	
5	P-St	Decimal Point Display Setup	Menu Setup 5
6	H-SL	Maximum Display Setup	
7	L-SL	Minimum Display Setup	
8	S-Ad	Error Compensation Setup	Menu Setup 6
9	PEād	Function Setting Peak Holder	Menu Setup 7
10	F-SL	Special Input Function Setting	Menu Setup 8
11	AL 1ñ	Alarm 1 Output Setup	Menu Setup 9
12	AL 2ñ	Alarm 2 Output Setup	
13	AL db	Alarm Dead Band Setup	
14	b-oñ	Burn Out Function Setting	Menu Setup 10
15	H-ot	Max Output Setup	Menu Setup 11
16	L-ot	Min Output Setup	

Menu Setup 3

Input Type Setting

1. Menu Title

Display	Description
SEnS	Change input sensor type

2. How to Set

- 1) On SEnS menu, press ► button to enter into Edit Mode.
- 2) ▲ Change the button to required sensor type.

Type of Input Type	Display	Scope of Input (Scale)
T/C	S	EE-S 0.0 ~ 1750°C
	R	EE-r 0.0 ~ 1750°C
	K	EE-k -200.0 ~ 1350°C
	E	EE-E -200.0 ~ 700.0°C
	J	EE-J -200.0 ~ 800.0°C
	T	EE-t -200.0 ~ 640.0°C
	B	EE-b 0.0 ~ 1800°C
	N	EE-n -200.0 ~ 1300°C
	RTD	Pt100Ω
JPt100Ω		JPE -200.0 ~ 500.0°C
Current	mA	āA 0.00 ~ 40.00mA
Voltage	mV	āV -50.00 ~ 50.00mV
	V	V -10.00 ~ 10.00V
2-Wire		2-ūr 4.00 ~ 20.00mA

Menu Setup 4

Input Range Setting

1. Menu Title

Display	Description
H-rn	Change maximum of inputs
L-rn	Change minimum of inputs

2. How to Setup

- 1) On H-rn menu, press ► button to enter into Edit Mode.
- 2) Use ► button and ▲ button to change it to required value.
- 3) After finishing Setup, press MODE button to move to the next menu (L-rn).
- 4) On L-rn menu, press ► button to enter into Edit Mode.
- 5) Use ► button and ▲ button to change it to required value.

Menu Setup 5

Readout Setting

1. Menu Title

Display	Description
P-St	Change position of decimal point for reading
H-SE	Change maximum of reading
L-rn	Change minimum of reading

2. How to Set

- 1) On P-St menu, press ► button to enter into Edit Mode.
- 2) Use ▲ button to move to required decimal point.
- 3) After finishing Setup, press MODE button to move to the next menu (H-SC).
- 4) On H-SC menu, press ► button to enter into Edit Mode.
- 5) Use ► button and ▲ button to change it to required value.
- 6) After finishing Setup, press MODE button to move to the next menu (L-SC).
- 7) On L-SC menu, press ► button to enter into Edit Mode.
- 8) Use ► button and ▲ button to change it to required value.

Menu Setup 6

Error Correction Setting

1. Menu Title

Display	Description
S-Ad	Correct error of reading

2. How to Set

- 1) On S-Ad menu, press ► button to enter into Edit Mode.
- 2) Change it to the corrected value. (Default setting is 0)
- 3) Error Correction Value = Required Value - Current Reading

3. Example

	Required	Current	Error
1	100.0	110.0	-10
2	100.0	90.0	10

Menu Setup 7

Function Setting of Peak Holder

1. Menu Title

Display	Description
PKmd	Fix reading and output as Low and High values

2. How to Set

- 1) PKmd menu, press ► button to enter into Edit Mode.
- 2) Press ► button to change to the required Mode.

Display (Mode)	Description
none	Not used
H-PK	Fix High value
L-PK	Fix Low value

Menu Setup 8

Special Input Function Setting

1. Menu Title

Display	Description
F-SL	Allow to select between a value proportion to the input and characteristic value

2. How to Set

- 1) On F-SL menu, press ► button to enter into Edit Mode.
- 2) Use ▲ button to change to required type.

Display (Type)	Description
L in	Read and output proportion to the input
root	Read and output value by convert it into characteristic value versus input

Menu Setup 9

Alarm Output Type Setting

1. Menu Title

Display	Description
AL 1ā	Set Alarm 1 Type as either of High /Low
AL 2ā	Set Alarm 2 Type as either of High /Low
AL db	Set Dead band value

2. How to Set

- 1) AL1m menu, press ► button to enter into Edit Mode.
- 2) Use ▲ button to change to required type.
- 3) After finishing Setup, Press MODE button to move to the next menu (AL2m).
- 4) Set menus AL2m as required types with methods in 1) and 2).
- 5) After finishing Setup, Press MODE button to move to the next menu (ALdb).
- 6) ALdb menu, press ► button to enter into Edit Mode. (Default: 0.3)
- 7) Use ► button and ▲ button to change it to required value.

Display (Type)	Description
H	Contact arises upon higher than specified value
L	Contact arises upon less than specified value

Menu Setup 10

Burn Out Function Setting

1. Menu Title

Display	Description
b-on	A function to control reading and output when input is disconnected

2. How to Set

- 1) b-on menu, press ► button to enter into Edit Mode.
- 2) Use ▲ button to change to required type.

Display (Mode)	Description	Display	Output
none	Not used	N/A	
H, 9H	Fix High value	HHHH	Span Value
L, 0L	Fix Low value	LLLL	Zero Value

Menu Setup 11

Output Range Setting

1. Menu Title

Display	Description
H-ot	Set maximum of output (Set as same as H-SC)
L-ot	Set minimum of output (Set as same as L-SC)

2. How to Set

- 1) H-ot menu, press ► button to enter into Edit Mode.
- 2) Use ► button and ▲ button to change it to required value.
- 3) After finishing Setup, press MODE button to move to the next menu (L-ot).
- 4) L-ot menu, press ► button to enter into Edit Mode.
- 5) Use ► button and ▲ button to change it to required value.

3. Example

Setting				Current Reading (PV)	Output Value
Reading		Range of Output			
L-SC	H-SC	L-ot	H-ot		
0	100	0	100	100	20
0	100	0	200	100	12

- 1) Expression when output is 4~20mA: $4+16x([PV]-[L-ot])/([H-ot]-[L-ot])$
- 2) Reverse Output: Exchange L-ot value and H-ot value (L-ot : 100, H-ot : 0)



Ground Setup 1

Alarm Contact Value Setting

1. Menu Title

Display	Description
AL-1	Set contact value of Alarm 1
AL-2	Set contact value of Alarm 2

2. How to Set

- 1) AL-1 menu, press ► button to enter into Edit Mode.
- 2) Use ► button and ▲ button to change it to required value.
- 3) After finishing Setup, press MODE button to move to the next menu (AL-2).
- 4) Set menus AL-2 as required types with methods in 1) and 2).
- 5) After finishing Setup, Press EXIT button to return to PV state.

A/S Guide

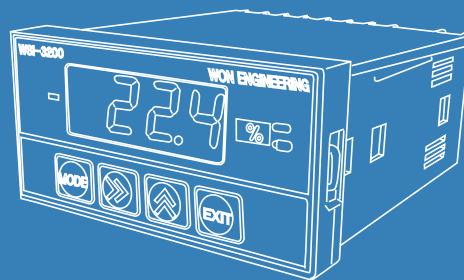
1. Before requesting A/S,

When the product does not operate correctly after installation, please check the followings first:

Symptoms	Checking
§ Power does not turn on . (Not displayed)	§ Check the voltage applied to the product and wiring of the product once again.
§ Reading is abnormal.	§ Check if reading, range of output or Alarm Contact Value Setting is set to negative number (-).
§ Stopped during boot.	§ It is a phenomenon resulted from damage on the board that requires repair.

2. About A/S

We have retained main components for 5 years after a model has been discontinued. In the event of any failure on this product after purchase, please contact our A/S Center.



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