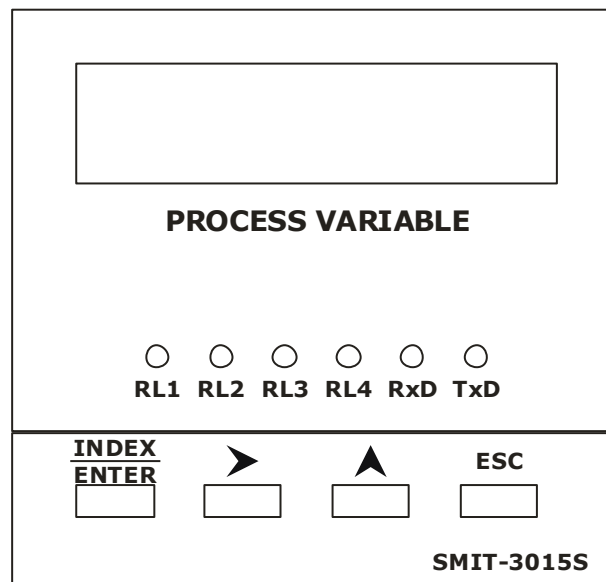


OPERATING MANUAL FOR WEIGHT INDICATOR *MODEL : SMIT-3015S*



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INTRODUCTION:

This is a microcontroller based Weight Indicator unit. It is highly versatile, accurate and different from the conventional indicators.

The set Parameters are stored in serial NVRAM. No battery back up is required.

General Specifications of this unit are:

- This is a Microcontroller based unit.
- Power Supply: 230V AC from Terminals of unit
- Indication: Four Digit Seven Segment Red LED
- Key board: Four keys membrane like
- Accuracy: 0.2% + +/- 1 digit
- Load cell Excitation : +5V DC
- Warm up time: 15 minutes
- Digital Inputs: For Remote Tare & Start/Stop
- Configuration Data are stored in serial NVRAM
- Mechanical data:

Mounting : Panel Mount
Outer Dimension: 96 mm (W) x 96 mm (H) x 110 mm (Depth)
Cutout Size : 90 mm x 90 mm

SYSTEM DESCRIPTION:

With the help of the keypad and display, unit allows to set and modify various configuration parameters and calibration.

HARDWARE DESCRIPTION:

The unit consists of a CPU card, Power supply card and KB/Display card.

The CPU and KB/Display card has necessary hardware for:

- Driving four digit multiplexed Display on CPU card.
- Four key keypad interface on KB/Display card.
- DC regulated supply: +24V,+5V

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INSTALLATION GUIDE:

- ❖ Unpack the instrument from the packing box carefully.
- ❖ Mount the instrument in the panel.
- ❖ Refer the Connection details which are given on the unit.
- ❖ Make sure that no wire is connected loosely to avoid generation of spark and RFI. Before connecting the power supply, check the mains supply Details on the unit.

OPERATING DETAILS:

The following paragraphs give detailed description of how to operate the unit. Before using the instrument, make sure to study and understand this section.

DISPLAY & KEYBOARD:

It displays Weight on Load cell.

Unit has 4 key membrane keypad organized as 4 x 1 matrix.

List of keys and their functions:

Keys	Function
<u>INDEX</u> ENTER ► (SELECT)	If in Edit Mode Save New data Else it will select New Menu Enter into data entry/verification mode. The Edit Mode is identified with Blinking of Selected Display. When In Edit mode Selects Next Digit. Increment selected parameter value
▲ (INCREMENT) ESC	Also use for Tare. Cancel Selection and Terminate Edit mode

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3.2 MENU LIST:

Parameter in Weight Indicator is divided in Three Main Menu.

- Display “DISP”
 - Decimal Point Setting: “dP”
 - Step width :“Svd”
 - Rounding: “rOUnd”

- Operation: “OPer”
 - Set Point 1: SP 1
 - Set Point 2: SP 2
 - Set Point 3: SP 3
 - Set Point 4: SP 4
 - Offset 1 : OFF 1
 - Offset 2 : OFF 2
 - Offset 3 : OFF 3
 - Offset 4 : OFF 4
 - Full Scale Output: OP-FS
 - Moving Average: nAv
 - Power On Delay Time : POn
 - Sample Per Second : SPS
 - Clear Peak :: Clr Pek (Set Pass word 3210 For Clear Peak Value)
 - Unit No :Unit (1-32 For Unit Id)
 - Weight Capacity For Over Message: CAP
 - Plant Name : To be entered through keyboard and will be displayed at Power ON (Maximum 18 characters can be Entered)
 - Baud Rate: User selectable baud rate in Kbps: 9.6 , 19.2 , 38.4 , 57.6 , 115.2
 - Discharge Delay Time:dIS dL (0000-9999 Sec)
 - Discharge Weight :dISCH
 - Number of Batch : No bAt
 - Next Batch Start Time : n timeE
 - Type :Alarm / Batching
 - A Type:LO-HI,HI-HI
 - B Type:Single/Dual
 - S Type :MODBUS/ASCII
 - A Time :0000-9999

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Calibration Procedure:

- Calibration: “CAL”
 - Password “PASS”
 - Calibration Zero :“CALZ”
 - Calibration Span :“CALS”
 - Calibration Out Zero :“OUTZ”
 - Calibration Out Span: “OUTS”

How to Enter/Modify parameter value:

Pressing Menu key will display three main menus one by one.

Password for Calibration is **1234**

- Use Digit select (→) key select the Menu. And Now it will display Parameter in Selected Menu
- Use Menu Key to scroll the List of Parameter.
- Use Digit select (→) key select the Parameter. And now it will display Value of selected Parameter and First Digit will start Blinking.
- Use Digit select (→) key and Increment (↑) to modify the Value of the parameter.
- Press Menu Key to save the Data in EEPROM and go to next Parameter. And Blinking is stopped

Example 1:

Set Decimal Point to: 0.01

Operation	Display
1. Press Menu/Enter Key	“dISP”
2. Press Select Key	“dEP”
3. Press Select Key	“0.1” (Display Present Value)
4. Press Incr Key	“0.01” (Display Present Value)
5. Press Menu/Enter Key	“Svd” (Saves Value and Display Next)

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Example 2:
Perform Calibration:

Operation	Display
1. Press Menu/Enter Key Display is	“CAL”
2. Press Select Key	“PASS”
3. Press Select Key	“0000”
4. Using “Select” Key and “Incr” Key enter the value	“1234”
5. Press Menu/Enter Key	“CALZ” (Saves Value and Display Next)
6. Press Select Key	“0000” (Value Set for Zero)
7. Using “Select” Key and “Incr” Key enter the value	Set Value as required (For Zero Normally it should be kept Zero.
8. Press Menu/Enter Key	ADC Count And Zero Weight is saved in EEPROM for future use and “CALS” is displayed
9. Press Select Key	“xxxx” (Value Set for Span)
10. Using “Select” Key and “Incr” Key enter the value	Set Value as required.
11. Press Menu/Enter Key	ADC Count And Span Weight is saved in EEPROM for future use and “OUTZ” is displayed
12. Press Select Key	“xxxx” (Value Set for Out zero is displayed)
13. Using “Select” Key and “Incr” Key enter the value and Set the Current to 4.00 mA	Set Value as required.
14. Press Menu/Enter Key	Count Entered are saved as Out Zero Count and “OUTS” is displayed
15. . Using “Select” Key and “Incr” Key enter the value and Set the Current to 20.00 mA	Set Value as required.
16. Press Menu/Enter Key	Count Entered are saved as Out Span Count and again “CALZ” is displayed
17. Press ESC Key to exit from edit calibration mode	Weight is displayed

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Digital Input for TARE:

- ❖ It is Potential Free Contact
- ❖ For Remote Tare Connect Push Button Between Terminal No.4(TARE) and Terminal No.6(GND)
- ❖ Tare is also done through ▲ (INCREMENT) Key

TERMINAL DETAILS: SMIT-3015S

SMIT 3015S : TERMINAL DETAILS					
① COM.	RELAY OUTPUT	⑪	LOAD CELL I/P	⑳ COM.	RELAY OUTPUT
② RL1		⑫		㉒ RL3	
③ RL2		⑬ EXC-		㉓ RL4	
④ TARE	DIGI. I/P	⑭ EXC+	SERIAL	㉔	
⑤ START STOP		⑮ SENSE-		㉕	
⑥ GND		⑯ SENSE+		㉖	
⑦	230VAC	⑰		㉗	
⑧ EARTH		⑱ GND		㉘	
⑨ NEUT.		㉑ TXD/D-		㉙	
⑩ LINE		㉒ RXD/D+		㉚	
Sr. No. 1407036344					

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