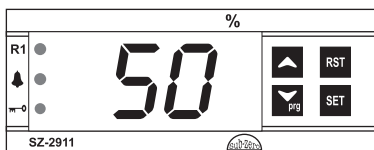
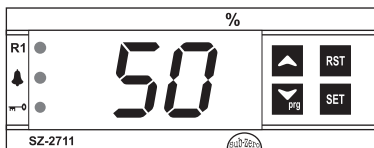


SZ-2711 / SZ-2911



Operating Instructions



Humidity Controller

Introduction :

The SZ-2711 and SZ-2911 is a single set point Humidity controller.

A number of parameters are displayed alphanumerically to set the controller for specific application.

This controller can be used for several applications with a measuring range from 30% to 90% RH for SZ-2711 and 0% to 99% RH for SZ-2911.

WIRING: The probe and its corresponding wires should never be installed in a conduit next to control or power supply lines. The electrical wiring should be done as shown in the diagram. The power supply circuit should be connected to a protection switch. The terminals admit wires of upto 2.5sq mm.

WARNING: Improper wiring may cause irreparable damage and personal injury. Kindly ensure that wiring is done by qualified personnel only.

Maintenance: Cleaning: Clean the surface of the controller with a soft moist cloth. Do not use abrasive detergents, petrol, alcohol or solvents.

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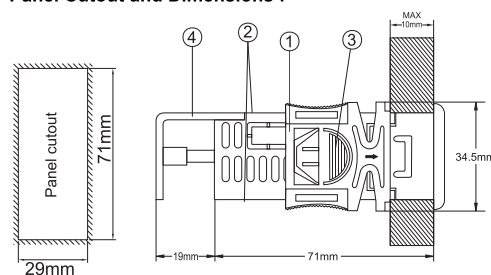
Installation :

Fixing and dimensions of panel models:
To fix the unit, slide the fastener (1) through the guides (2) as per the position shown in the figure. Move the fastener in the direction of the arrow, pressing tab (3) it permits to move the fastener in the opposite direction of the arrow. Once the controller has been connected, they should be covered with the lid (4). Silicon sealant should be applied along the perimeter of the panel cut out or a rubber 'O' ring supplied before the unit is fitted to increase protection against water seepage.

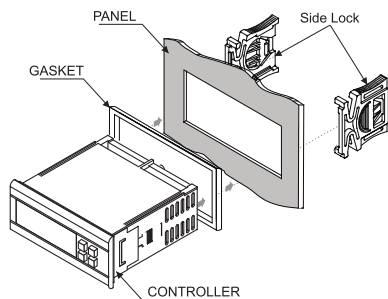
Controller : Controller should be installed in a place protected by vibration, water and corrosive gasses and where ambient temperature does not exceed the values specified in the technical data.

Probe : To give a correct reading, the probe must be installed in a place protected from thermal influences, which may affect the temperature to be controlled.

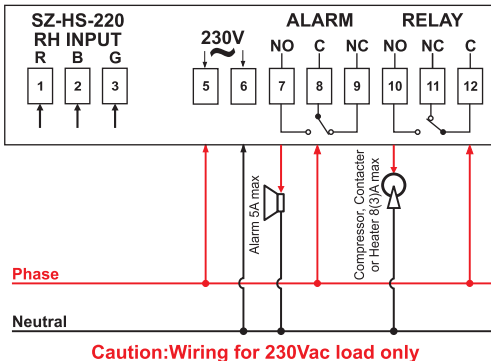
Panel Cutout and Dimensions :



Panel Cutout and Dimensions :

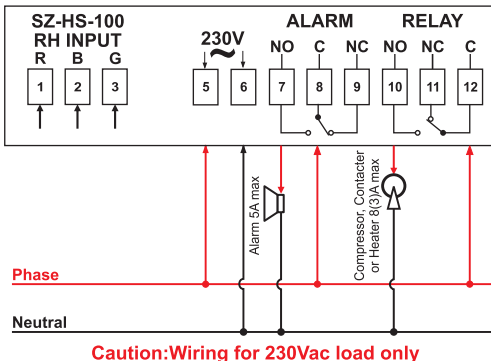


Suggested Wiring SZ-2711



Caution:Wiring for 230Vac load only

Suggested Wiring SZ-2911



Caution:Wiring for 230Vac load only

TECHNICAL DATA

- Housing** : Black ABS plastic.
- Front cover** : Polycarbonate plastic.
- Dimensions** : Front - 75 X 34.5 mm
Depth 71 mm (w/o back lid).
- Panel Cutout** : 29 X 71 mm
- Mounting** : Flush panel mounting with fasteners.
- Protection** : IP65 Frontal
- Connections** : Screw terminal blocks.
≤ 2.5sq mm one wire/terminal only.
- Display** : 2X14.2 mm (0.56") LED.
- Data storage** : Non-volatile EEPROM memory
- Power input** : 230Vac +/-10%, 50Hz/60Hz. Others on request.
- Operating temp.** : 5°C to 50°C (non-condensing).
- Storage temp.** : -20°C to 70°C (non-condensing).
- Output** : 1 SPDT relay 8(3)A, 250Vac
1 SPDT Alarm relay 5A, 250Vac
- Input** : Humidity Sensor (SZ-HS-220) for SZ-2711
Humidity Sensor (SZ-HS-100) for SZ-2911
- Range** : 30 to 90% (SZ-2711)
0 to 99% (SZ-2911)
- Resolution** : 1%
- Accuracy** : +/-5% (SZ-2711)
+/-3% (SZ-2911)

USER INTERFACE

- UP** : In Program mode:
Scroll through parameters & Increases parameter value.
- Down/Program** : Press and hold for 2sec to enter into program mode.
In program mode: **Decreases parameter value**
- Set** : In program mode : **sets/save the changed value of parameter.**
- RST Reset** : This key will mute the Alarm

INDEX

Sr. No.	Para.	Description
1	Set Point	Compressor relay set point.
2		Set other parameter.
3	H1	To set controller Dehu./Humidi. mode.
4	H2	Max High Humidity limit & alarm.
5	H3	Min Low Humidity limit & alarm.
6	H4	To set Differential (Hysteresis).
7	H5	Probe calibration.
8	H6	Time Delay (relay restart after cutoff).
9	LP	Keypad lock.
10	AL	Alarm - to activate Relay
11	FS	Restore Default Setting controller.
12	EP	End Programming
13		LED Indications
14		Operating Messages

Parameter List :

- 1 Set point** : Function: To set the cut out point of the controller.
Press and hold the **SET** key for 2 Seconds.
Display will change to set value and flash. The set point value can now be changed by using the UP/DOWN keys. After setting the desired value, press the set key and you will see " - - " which confirms that the set point has been stored in memory.

SZ-2711			SZ-2911		
Min	Max	Fac.	Min	Max	Fac.
H3+1	H2-1	70%	H3+1	H2-1	70%
- 2 To set other Parameters.** : Display will flash "H1". To select other parameters, use UP/DOWN keys.
Press & hold **prg** key for 2 seconds.
- 3 H1 Parameter** : Function: To set controller in Dehumidification / Humidification Mode.
To change value use **UP** **prg** keys To set value press **SET** key

0 = Dehumidification.	Min	Max	Fac.
1 = Humidification.	0	1	0
- 4 H2 Parameter** : Function : To set maximum allowable high humidity limit.
Once set at a particular value, this will not allow the set point to go above this value and below set point setting.
Example : Setting this parameter at 80% will not allow the set point to go above 80%. Also, if the humidity reaches 80% the display will show **HH (High Humidity)** indicating that the Humidity has gone above the range in this parameter.

SZ-2711			SZ-2911			
HH	Min	Max	Fac.	Min	Max	Fac.
(Message on display)	XX%	90%	90%	XX%	99%	90%

XX = Set Point +1
- 5 H3 Parameter** : Function: To set minimum allowable low humidity limit .
Once set at a particular value, this will not allow the set point to go below this value and above set point setting.
Example : Setting this parameter at 40% will not allow the set point to go below 40%. Also, if the humidity reaches 40%, the display will show **LH (Low Humidity)** indicating that the Humidity has gone below the range in this parameter.

SZ-2711			SZ-2911			
LH	Min	Max	Fac.	Min	Max	Fac.
(Message on display)	30%	XX%	30%	0%	XX%	30%

XX = Set Point -1
- 6 H4 Parameter** : Function: To set the differential(Hysteresis).
Example (In dehumidification mode) :
If the set point is set at 60% and differential is set at 3, then when the system reaches 63%, the relay will cut in. Since the differential is the relay will cut-off again at SET point.

Min	Max	Fac.
1%	20%	1%

7 H5 Parameter Function: To set probe offset calibration.

In time it may be possible that the display may be offset by a % RH or more.
To compensate for this error, you may need to add or minus the %RH required to achieve the correct Humidity.

Example : The Humidity on the display is 55%, whereas the actual Humidity is 57%. You will need to set the H5 to 2, which means that once out of the programming mode, the Humidity will show 57% (55% + 2%).

Min	Max	Fac.
-9%	10%	0%

8 H6 Parameter Function: To set time delay between relay restart time.

This parameter is used to protect the De-Humidifier from restarting in a short period of time and can be set between 0 to 20 minutes.

Example : If this parameter is set at 1 minutes, the relay will cut off at the set Humidity, but will not restart for a minimum of 1 minutes, even if the differential is achieved earlier. This parameter is good to protect the life of the Dehumidifier/Humidifier or even in applications where the probe is placed at places where there are sudden & short changes in Humidity.

Min	Max	Fac.
0 Min	20 Min	1 Min

9 LP Parameter Function: To lock keypad.

This parameter is used to lock the keypad so that tampering is not possible by by-standers.

0 = keypad unlocked
1 = keypad locked

When locked all parameters can only be viewed, but not modified.



Min	Max	Fac.
0	1	1

10 AL Parameter Function : To activate Alarm Relay.

Once set to 1, the Alarm will come ON incase the Humidity reaches or goes above H2 or below the values set in parameter H3 or if the probe fails.

0 = De-activates the Alarm
1 = Activates the alarm



Min	Max	Fac.
0	1	1

11 FS Parameter Function : To restore default settings of the controller.

When set to 1 all parameters are programmed to factory values.
Useful to debug setting related problems.

Min	Max	Fac.
0	1	0

12 EP Parameter Function: To end programming.

To end programming press "SET" key
Once the key is pressed, the controller goes into the normal mode and displays the temperature and all settings are recorded.

13 LED INDICATION

<p> Compressor</p> <p>ON: Compressor is ON. OFF: Compressor is OFF. FLASHING : Compressor is in time delay.</p>	<p> Alarm</p> <p>FLASHING : Alarm (Ht, Lt or PP)</p>
<p> Keypad Lock</p> <p>ON: Keypad is lock. OFF: Keypad is unlock.</p>	

14 OPERATING MESSAGES

<p>HH High humidity alarm</p> <p>Humidity above the maximum limit of the set value (H2)</p>	<p>LH Low humidity alarm</p> <p>Humidity below the minimum limit of the set value (H3)</p>
<p>PP Probe fail</p> <p>Probe short circuit, circuit open or without probe, or Humidity > 90 % or < 30% for SZ-2711 Humidity > 99 % or < 0% for SZ-2911</p>	

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03 / 31.05.17