

DIGITAL THERMOSTATS & DIGITAL HUMIDISTATS

Type ALE & BLE

SAGInoMIYA

GENERAL DESCRIPTION

- LCD with high brightness backlight
- Power supply voltage: 85 to 264V.AC 50/60Hz
- Forced ON/OFF
- Relay output: 250V. AC , 10A (cos φ=1)
6A (cos φ=0.7)
3A (cos φ=0.4)
- Ambient temperature: Controller ... - 10 to 50°C
- Type ALE:
 - Available 0.1°C pitch display (select 0.1°C / 0.5°C / 1°C)
 - Max.4 ON/OFF points during 24 hours model available.
 - MODBUS communication
- Type BLE:
 - Setting in each 1%RH is possible.
 - Ambient temperature: Humidity sensor 0 to 50°C



Type ALE



Type BLE

TYPE NUMBER SELECTION (SPECIFICATIONS)

Type ALE – Digital Thermostats

Unit: °C

Catalog No.	Temp. Set Range	Differential	Temp. Indication	Function	Sensor Part No. (Standard)	Wt. (kg)
ALE-SD11-011	-50 to 30	Min. 0.5	-55 to 40	Standard(1 Step)	TEK-83H609 (with 2m lead)	0.2
ALE-SD12-011				2 Step		
ALE-SD13-011				1 Step + Hi/Lo limit with time delay		
ALE-SD14-011				1 Step + Programmable		
ALE-SD15-011				2 Step + Programmable		
ALE-SD21-011	0 to 100		0 to 110	Standard(1 Step)	TEK-83H601 (with 2m lead)	
ALE-SD22-011				2 Step		
ALE-SD23-011				1 Step + Hi/Lo limit with time delay		
ALE-SD24-011				1 Step + Programmable		
ALE-SD25-011				2 Step + Programmable		

- Temperature sensor type TEK-83H609 or TEK-83H601 and sensor holder are supplied as standard accessories.
- Enclosure IP44(Front of products)

Type BLE – Digital humidistats

Unit: %RH

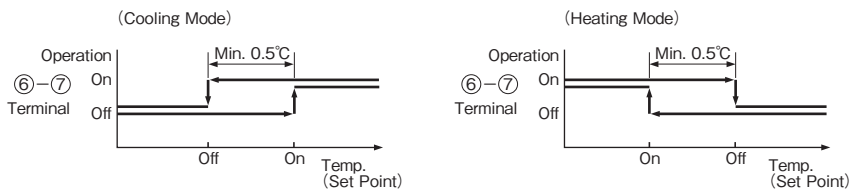
Catalog No.	Humidity Set Range	Differential	Humidity Indication	Calibration	Function	Sensor Part No. (Standard)	Wt. (kg)
BLE-SD11-011	30 to 90	Min. 3	20 to 99	±10	1 Step	HEK-11R001	0.3
BLE-SD11-011					2 Step		

- Humidity sensor type HEK-11R001 is supplied as standard accessory.
- Enclosure IP44(Front of products)

OPERATION

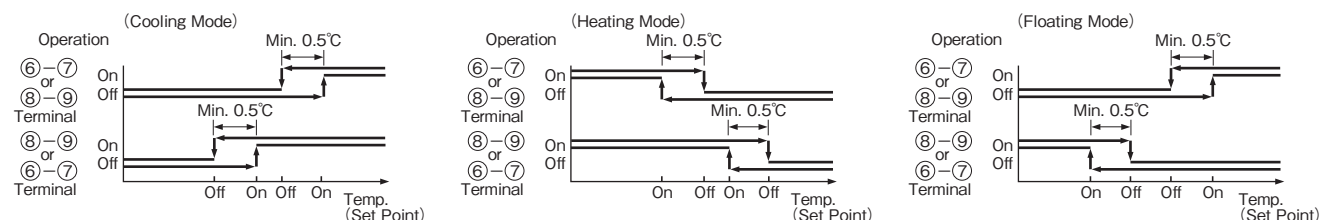
Type ALE – Digital thermostats

Standard (1 Step) model

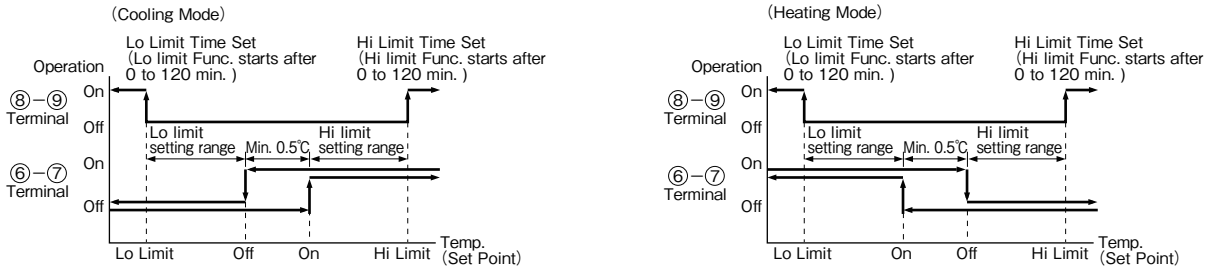


- Free to set On/Off set point independently within the range.
- When Off set point is changed, On set point automatically shifts. (Diff. remains same)
- When On set point is changed, Off set point remains unchanged. (Diff. changes)

2 Step model

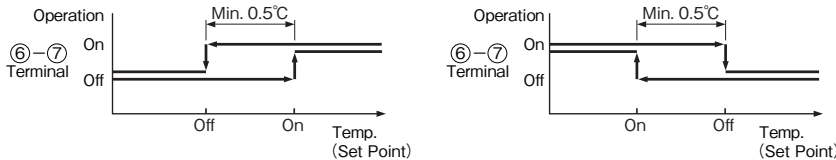


1 Step + Hi/Lo limit with time delay model



- Hi/Lo limit output is reset manually (Push reset: Push ENT Key in 2 sec or power off)
- Delay Timer can be set in the time range from 0 to 120 min respectively.

1 Step + Programmable model



- Free to set On/Off set point independently within the range.
- When Off set point is changed, On set point automatically shifts. (Diff. remains same)
- When On set point is changed, Off set point remains unchanged. (Diff. changes)

2 Step + Programmable model

- Please check the 2Step model

Programmable function

Max. 4 ON/OFF points during 24 hours model available.

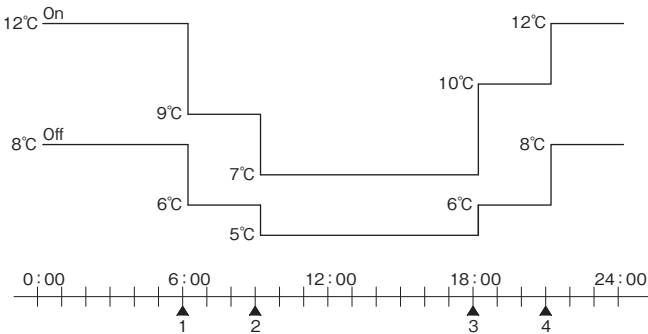
- Change the set temperature (ON / OFF) at the specified time.
- Stop the control at the specified time.

[Program example 1]

Change the set temperature four times a day at the specified time.

- Item1:6:00 OFF 6°C / ON 9°C
- Item2:9:00 OFF 5°C / ON 7°C
- Item3:18:00 OFF 6°C / ON 10°C
- Item4:21:00 OFF 8°C / ON 12°C

This program performs the following operations.

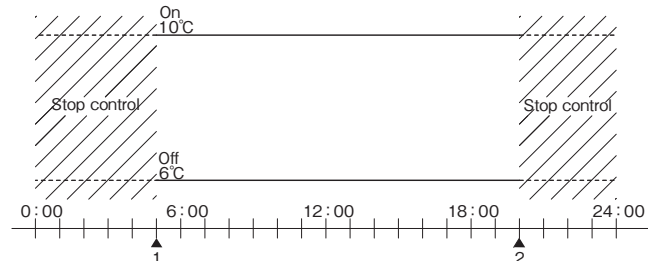


[Program example 2]

Stop control in the night (20:00 to 5:00)

- Item1:5:00 OFF 6°C / ON 9°C
- Item2:20:00 OFF 5°C / ON 7°C

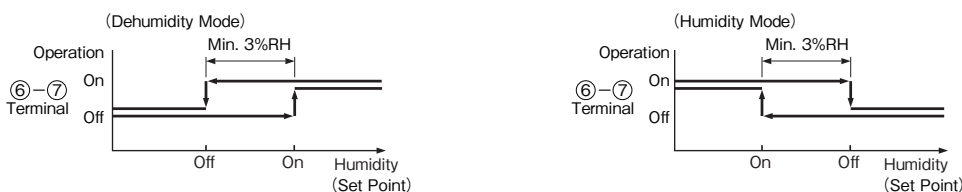
This program performs the following operations.



※This model can combine the settings of program example 1 and 2. In this case also a combination of up to 4 points within 24 hours.

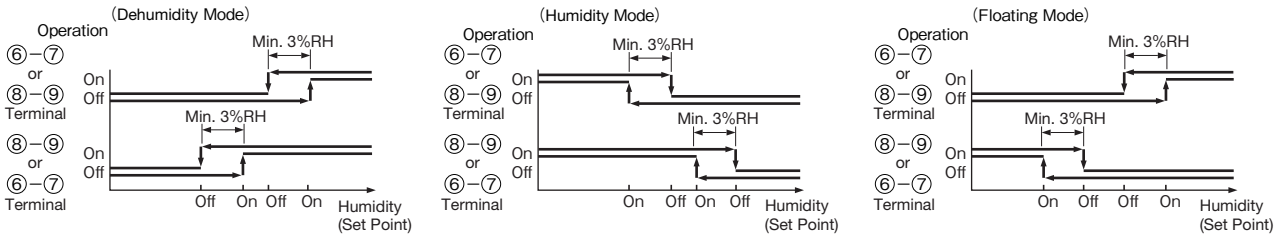
Type BLE – Digital humidistats

Standard (1 Step) model



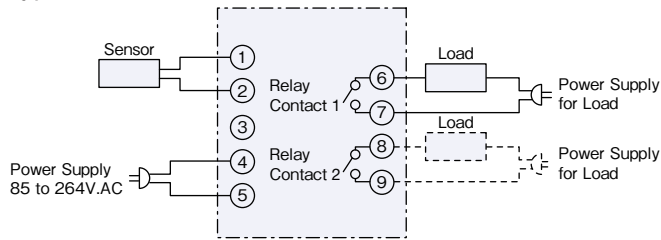
- Free to set On/Off set point independently within the range.
- When Off set point is changed, On set point automatically shifts. (Diff. remains same)
- When On set point is changed, Off set point remains unchanged. (Diff. changes)

2 Step model

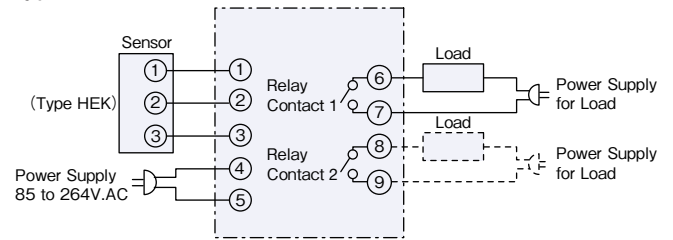


WIRING DIAGRAM

Type ALE



Type BLE



⑥-⑦:(Control output) :Standard (1 Step) model, 2 Step model,
1 Step model + Hi/Lo limit with time delay model,
and 1 Step model + Programmable model

⑥-⑦:(Control output):Standard (1 Step) model and 2 Step model
⑧-⑨:(Control output):2 Step model

⑧-⑨:(Control output) :2 Step model
(Alarm output) :1 Step model + Hi/Lo limit with time delay model

ACCESSORIES

Sensor Part No.	Applicable Model	Dimension	Remarks
TEK-83H609 (Temperature)	ALE-SD11-011 ALE-SD12-011 ALE-SD13-011 ALE-SD14-011 ALE-SD15-011		<ul style="list-style-type: none"> Ambient temp. on usage: - 55 to 80°C When the sensor is in use under the condition of dew, water dripping or outdoor, the sensor should be vertically installed with lead wire outlet downward. Sensor holder is supplied as standard.
TEK-83H601 (Temperature)	ALE-SD21-011 ALE-SD22-011 ALE-SD23-011 ALE-SD24-011 ALE-SD25-011		<ul style="list-style-type: none"> Ambient temp. on usage: - 40 to 110°C When the sensor is in use under the condition of dew, water dripping or outdoor, the sensor should be vertically installed with lead wire outlet downward. Sensor holder is supplied as standard.
HEK-11R001 (Humidity)	BLE-SD11-011 BLE-SD12-011		<ul style="list-style-type: none"> Designed to accord room interior. Designed to be installed where certain air flow runs and the room humidity is represented. Depending on load or other conditions, humidity control may become difficult.

Following sensors are available as option. (Ambient temperature sensors are available upon request.)

Direct immersion sensor with nipple TEK-83N
Wall mounting sensor TEK-83R
Surface temp. sensor TEK-83E
Direct immersion sensor with terminal cover TEK-83B
Bulb well TEK-00N

Communication function

Type ALE

This product allows the following operations using the communication function.

Saginomiya Seisakusho's monitoring software allows the following checks and operations on the PC.

- Monitoring current temperature
- Checking current settings
- Switching operation mode (COOL/HEAT)
- Registering program
- Setting time
- Saving measurement data
- Monitoring output ON/OFF
- Setting OFF/ON setting values
- Setting calibration
- Enabling/disabling program function
- Locking/unlocking key

* You need to provide an RS-485 communication converter and a communication cable required for communication.

* Please download the monitoring software from the saginomiya website. (Free of charge)

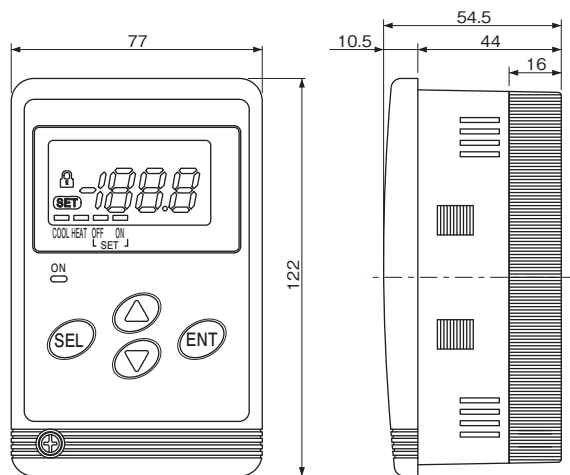
The following shows a summary of communication specifications.

- Interface : IRS-485
- Connection method : Two-wire half-duplex multi-drop connection
- Number of connected units : 16 or less
- Protocol : Modbus
- Transmission mode : Remote Terminal Unit (RTU)

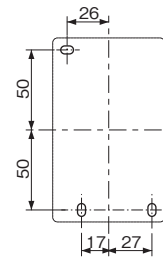
* For details on communication specifications, contact your dealer or Saginomiya Seisakusho.

DIMENSIONS

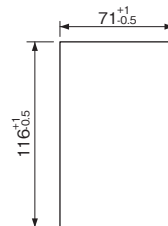
Type ALE, BLE



Wall Mount Installation Dimension



Panel Cut Dimension



Unit: mm

OPERATION

Type ALE-AA02 Panel Mount Bracket including Gasket

