SIEMENS

07B0 CO Room Control Unit 970101

Use of the application program

Product family:	Displays
Product type: Manufacturer:	Display and operating units Siemens AG
Name	Room control unit UP 227 DELTA i-system

Order no.:	5WG1 227-2AB11
order no	JWG1227 2//D11

Table of Contents

1	Produ	act and Feature Description	3
	1.1 Int	roduction	3
2	User	Interface – Controls and Displays	4
3	Featu	re line – fixed control features	4
	3.1 Ind	ividual button features	5
	3.1.1	Switching	5
	3.1.2	Switching with forced control	5
	3.1.3	Recall 8-bit scenes	6
	3.1.4	Recall/save 1-bit scene 1	
		Recall/save 1-bit scene 2	6
	3.1.5	Send 8-bit decimal value,	
		Send 8-bit percentage value	6
	3.1.6	Send temperature value,	
		Send brightness value,	
		Send wind speed value,	
		Send 16-bit value	6
	3.2 But	tton pair features	6
	3.2.1	Dimming On/Off	6
	3.2.2	Shutters	6
	3.2.3	Blind	6
4	Displa	ay area – Display features	7
	4.1 Dis	play feature: Switching	7
	4.1.1	Switching, Off/On	8
	4.1.2	Switching, Toggling/Toggling	8
	4.1.3	Bell feature: Press On/Release Off	8
	4.1.4	Bell feature: Press Off/Release On	8
	4.2 Dis	play feature: Switching, dimming	8
	4.3 Dis	play feature: Switching with forced co	ontrol 9
	4.4 Dis	play feature: Shutters	9
	4.5 Dis	play feature: Venetian Blind	10
	4.6 Dis	play feature: Recall/save 8-bit scenes _	10

	4.7	Display feature: Recall/save 1-bit scenes	11
	4.8	Display feature: Send fixed values	12
	4.9	Display feature: Send variable values	13
	4.10	Display feature: Display value	13
	4.11	Display feature: Show text	14
5	R	epresentation and feature of alarm messages	15
	5.1	Alarm behavior	15
	5.2	Alarm conditions	16
	5.3	Alarm behavior after a restart	18
6	R	oom temperature controller	18
	6.1	Device feature	18
	6.2	Functional overview	18
	6.2	.1 Room temperature control (control):	19
	6.2	.2 Actual value calculation:	20
	0.2	computation:	21
	6.2	.4 Room operating modes:	21
	6.2	.5 Fan control	24
	6.3	Display and use of the room thermostat/fan	26
	6.3	.1 Room mode display and setting	26
	0.5	setpoint value shift	26
	6.3	.3 Setting the Comfort Extension	27
	6.3	.4 Setting fan speeds	28
7	S	ystem Settings	28
	7.1	Setting the display background illumination	28
	7.2	Setting the background color (white or blue)29
	7.3	Setting the time until switch to standby	29
	7.4	Setting the clock time	29
	7.5	Setting the date	30
	7.6	Setting the control language	31
	7.7	Setting the system language	31
	7.8	Administrator mode	32
	7.9	Factory settings	32
	7.10	Address assignment	32
8	V	Veekly time switching program	32
	8.1	Configuring the weekly timer program	32

Engineering Manual

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

9	Param	neters and communication objects	34
	9.1 Para	ameters in general	34
	9.1.1	Timer settings	35
	9.1.2	Clock settings	35
	9.1.3	Handling	36
	9.1.4	Temperature	37
	9.1.5	Communication objects in general	37
	9.2 Para	ameter display	38
	9.2.1	Communication objects display	40
	9.3 Para	ameter behaviour after bus voltage	41
	0.4 Dar	mater info area (line 1)	42
	9.4 Para	ameter into area (line 1)	43
	9.4.1	Left button/right button	44
	9.4.2	Button pair functions:	_4/
	9.4.3	Display in info area	48
	9.4.4	Communication objects for features in	the
		feature line (individual button feature	s) 48
	9.4.5	Communication objects for features in	the
		feature line (individual button feature)) -
		"second telegram"	49
	9.4.6	Communication objects for features in	1
		feature	50
	9.5 Para	ameter display features	51
	9.5.1	Communication objects display feature	es62
	0.0		
	9.6 Alai	rm parameters – General	69
	9.6.1	Alarm communication objects – Gener	ral/0
	9.6.2	Alarm parameters	/1
	9.6.3	Alarm communication objects	/4
	9.7 Roo para	m temperature controller/fan control ameters	76
	9.7.1	Temperature controller parameters –	
		General	76
	9.7.2	Operating mode parameters, controlle	er 78
	9.7.3	Operating mode parameter, room	80
	9.7.4	Frost/Heating alarm parameter	81
	9.7.5	Temperature parameter, actual value	82
	9.7.6	Temperature parameter, setpoint valu	es84
	9.7.7	Heating parameter, two level control	86
	9.7.8	Heating parameter, PI control	87
	9.7.9	Heating parameter, Valve (two level	
	0710	CONITOR)	89
	9.7.10	Communication objects room to man	90
	9./.11	communication objects room tempera	ature
	0 7 1 2		95 95
	9.7.12	Fan parameter	100
	9.7.13	Fan communication objects	102

97010, 102 pages

1 Product and Feature Description

1.1 Introduction

The UP 227 room controller is available in the following colors matching the DELTA i-system range of switches:

Titanium white

5WG1 227-2AB11

The UP 227 room controller is a monoblock device. It needs no separate bus coupling and no additional power supply. The hanger and corresponding frame required for installation are not included in the kit as delivered, but must be ordered separately (see the relevant catalogs).

The UP 227 room controller combines the features of a graphic display with up to 10 room control features, an individual room thermostat with set point and mode settings, a temperature sensor and a fan coil unit controller in a bus device.

The room controller can be used as a room thermostat with control and display features for set points, modes, comfort extension, fan speeds, etc. Or the device can operate as a pure controller and display for these controller-specific values. In this application, the room thermostat must be available in the actuator.

You can configure switching, switching with force control, dimming, solar protection control, send and store scenes, send and display values, display values and text/operating messages. Features and states can be depicted with texts and symbols. Each control or display feature is shown on a separate page on the LCD display. If you do not configure all 8 room control features, then correspondingly fewer pages are displayed.

In addition, Option 2 confirms further control features operated directly via a pair of keys.

Eight alarm messages can also be displayed on special alarm pages. A tone generator and a flashing red LED (A, see Figure 1) highlight these messages in the top right corner. The room controller has an internal tone generator. This can be used as a response when a button is pressed. A LED (A, see Figure 1) in the top right corner of the room controller can also show a green light as a response when a button is pressed.

The LED (A, see Figure 1), in the top right corner also acts as an orientation light. The orientation light can

also be configured so that it is constantly switched on and off when green, or can be switched by a communication object. This is how the orientation lighting can be switched individually in night mode.

The date and time can be shown on the room controller. The clock is used to control the timer program and to display the time stamp on alarm messages.

The room controller needs an external timer, which supplies the precise time and date through the corresponding KNX communication objects. Therefore, it is essential for the corresponding KNX device to be present as time master in the system. You can set the time and date manually on the LCD display, in the system settings.

The device also has a weekly timer feature for up to 40 timer jobs. These can be set directly on the LCD display. You can set weekly timer commands for each of the 8 configurable display and control features. You can also set the room thermostat mode and fan speeds via the weekly timer feature.

Special system pages on the LCD display change the settings, such as brightness, background color and time to standby.

If the device is not used for a certain time, the background lighting is switched off or moves into a dimmed state. The room controller moves into standby mode. The system settings define the time to standby mode directly on the room controller. If the background lighting is switched off, this is switched on again for the set time on pressing a button.

The display mode can be configured so that a certain feature is shown when the display is in standby. This can be the last feature used or the defined display of one of the 8 control and display features. The display pages for the room controller or for setting the fan speeds can also be selected for this.

All functional descriptions, text and alarm messages which are shown on the display can be stored in three defined control languages in the ETS configuration. This makes an individual selection of the control language possible directly on the room controller in the system settings. If this language change is activated remotely, the corresponding KNX bus communication objects related to this are available.

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

The representation of the system settings and the room thermostat/fan control settings is stored in five languages: German, English, French, Italian and Spanish. This system language is set directly on the room controlled in the system settings.

Scene storage, date and time setting and configuration of timer features is only possible in administrator mode. This protects against unwanted operations and settings.

2 User Interface – Controls and Displays

The room controller has four capacitive button pairs for control. These are arranged on both sides (left and right) of the display (E, F, G, H).



Figure: 1

The display is divided into three areas.

The top area (B) contains the feature line, with both fixed feature buttons (E) right and left. These form the top pair of buttons. Different information items, such as time, date, outside temperature, inside temperature or room mode, heating or cooling mode and fan speeds etc. are displayed between the buttons. The information display is programmed via the ETS.

A fixed room control feature is assigned to the top pair of buttons (E) to the right and left of the feature line. There is also the option to use both buttons as a pair on a room control feature. This setting is configured via the ETS. Appropriate symbols show the room control feature on the display to the right or left beside the keys. This predetermined functionality always maintains even if display settings are changed.

The central area (C) has two lines. The second line selects the feature channel, such as ceiling lights, south blind, scene presentation, messages, room thermostat settings and system settings. This is done by the second

button pair (F) to the left and right of the second line. The feature name is configured via the ETS. The third line controls the selected feature, e.g. switch on/off, blind up/down or changes the settings, e.g. nominal temperature 21°C or change of language. The third button pair (G) to the left and right of the third line controls these.

The bottom area (D), with line 4, are used to browse through the different feature groups, e.g. switching, lighting, dimming, solar protection, scenes, sending or showing values, alarms, room thermostat and system settings. Depending on this selection, the relevant channels and feature names or settings for a further selection are displayed in line 2. The fourth button pair (H) to the left and right of the bottom line controls this browsing.

3 Feature line – fixed control features

The top line on the room controller is the feature line. It includes the central feature area (I) and both buttons (E and $E^{)}$).



Figure: 2

If these buttons are working individually, each button can be configured separately with a control feature using the ETS. These control features are then locked to the relevant button. This gives the option of controlling important room features, e.g. ceiling lights ON/OFF, directly, without browsing through a display menu. The symbol (J), to the right beside the individual button (E), describes the feature to be controlled to the left. The symbol (J), to the left beside the individual button (E), describes the feature to be controlled to the right.

Engineering Manual

97010, 102 pages

The following individual features are available in each case: a) Switching. On b) Switching: Off c) Switching: Toggling d) Press On/release Off e) Press Off/release On f) forced controlled On a) forced controlled Off h) forced control inactive (On) i) forced control inactive (Off) j) 8-bit scene: recall k) 1-bit scene recall/save scene 1 I) 1-bit scene: recall/save scene 2 m) Send 8-bit decimal value n) Send 8-bit percentage value o) Send temperature value p) Send brightness value q) Send wind speed r) Send 16-bit value

For each of the two individual buttons, there is also the option to send, after a delay (delay variable from 0 seconds to 255 seconds), a second telegram via a further communication object, e.g. "ON" via object 1, "OFF" via object 2. The second telegram can also have another feature, e.g. call up 8-bit scene. If the button is pressed again before the set time has elapsed, the time delay restarts for the corresponding second telegram.

There is also the option to send two different values via two different communication objects by tapping or by holding the button down, e.g. tap "21°C" via object 1, alternatively hold down for "500 lux" via object 2). The time that differentiates between a tap and holding down is configurable (0.5 seconds - 2 seconds).

These further individual features can be selected: a) Switching. On

b) Switching: Off

- c) forced controlled On
- d) forced controlled Off
- a) forced controlled Off
- e) forced control inactive (On)
- f) forced control inactive (Off)
- g) 8-bit scene: recall
- h) 8-bit scene: save
- i) 1-bit scene recall/save scene 1
- j) 1-bit scene: recall/save scene 2
- k) Send 8-bit percentage value
- I) Send 8-bit decimal value
- m) Send temperature value n) Send brightness value

o) Send wind speed valuep) Send 16-bit value

If both buttons (E and E`) are configured for use as a button pair, these co-operate on a single feature. This control feature is then locked to the relevant button. There is the option to control important room features, e.g. dim ceiling light (left button: on/brighter, right button: off/darker) directly, without browsing through a display menu. The symbols (J and J`) then describe the feature to be controlled overall.

The following features are available for control with the button pair:

a) Dimming On/Off (left Off, darker/right On, brighter)

b) Shutters (left Down, Stop/right Up, Stop)

c) Blind (left Down, Stop, slats Closed/right Up, Stop, slats Open)

When controlling with a button pair, the control strategy can be changed to:

a) Dimming On/Off (left On, brighter/right Off, darker)

b) Shutters (left Up, Stop/right Down, Stop)

c) Blind (left Up, Stop, slats Open/right Down, Stop, slats Closed)

The use of each feature button or of the button pair can be locked or released via a special communication object.

You set whether the button or button pair control is always to be released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0.

A special display page signals blocking of the command.

3.1 Individual button features

3.1.1 Switching

By pushing the button, the corresponding command message (ON/OFF/TOGGLE) is sent immediately.

With the ring feature, you press the button to send the command "ON" or "OFF" and release it to send the reverse command in each case.

3.1.2 Switching with forced control

Pressing the key sends the set command (forced controlled ON/forced controlled OFF/forced control inactive and simultaneously switch ON/forced control inactive and simultaneously switch OFF) immediately.

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

Actuators with override input allow an override of certain actuator outputs by central control interventions. In this way, you can, say, in energy saving or night mode override the switching on of certain lights or loads.

3.1.3 Recall 8-bit scenes

Pressing the button recall the scene with the set number (1...64). Additionally an appropriate telegram is sent to the actuator via the object.

3.1.4 Recall/save 1-bit scene 1 Recall/save 1-bit scene 2

With the "Recall/save 1-bit scene" feature, the user can independently, without changing the scheduling with the ETS, reprogram a device for 1-bit scene control, i.e. assign different brightness values or switching states to the individual groups of the relevant scene.

A scene is recall with a 1-bit switching command via another object, in which scene 1 is recall with a "0" telegram and scene 2 with a "1" telegram.

A scene is also saved with a 1-bit switching command, in which scene 1 is saved with a "0" telegram and scene 2 with a "1" telegram.

A 1-bit status object is available with this feature. This gives the choice of recalling the corresponding 1-bit switching object for scenes 1 or 2 with the link or saving the corresponding 1-bit switching object for scenes 1 or 2 with the link .

Before saving a scene, the relevant actuators must be set to the wanted brightness or switching states with the buttons/sensors provided for this purpose. Receiving a saving telegram prompts the contacted scene modules to demand the currently set brightness values and switching states from the actuators and save them in the relevant scene.

3.1.5 Send 8-bit decimal value, Send 8-bit percentage value

This feature is used to send 8-bit values in the range from 0...255 or 0...100%. An 8-bit value is assigned to the button, e.g. to dim the associated lights to the set value by pressing the button or to use this button to control the speed of a fan.

3.1.6 Send temperature value, Send brightness value, Send wind speed value, Send 16-bit value

This feature is used to send 2-byte floating point temperature values (-30...48°C), illumination values (0...100,000 lux), wind speed (0...35 m/s) or any 2-byte counter values in the range from 0...65535.

A 16-bit floating point value is assigned to the button, e.g. press the button set the nominal temperature of a room thermostat to a set value.

3.2 Button pair features

3.2.1 Dimming On/Off

Tapping a button pair in a defined manner switches on or off, and holding a button down dims or brightens. You can set which button (E or E') is to be used for switching off and darkening or switching on and brightening. When "Dimming with Stop telegram", as soon as a button is detected as held down, a "brighter" or "darker" dimming telegram is sent and, when the button is released, a stop telegram is sent. The time that differentiates between a tap and holding down is configurable for the dimming/solar protection ("General" settings card).

3.2.2 Shutters

Holding down a button pair can define moving the shutters down or up, and tapping a button ends the movement. You can set which button (E or E`) moves the shutter up or down. The time that differentiates between a tap and holding down is generally configurable for the dimming/solar protection ("General" settings card).

3.2.3 Blind

Holding down a button pair can define moving the solar protection down or up, and tapping a button ends the movement or adjusts the slats by one step. You can configure with which button the solar protection is to be moved up. Additionally and if necessary, the slats are to be opened by one step or the solar protection is moved down and, if necessary, the slats are to be closed by one step. The time that differentiates between a tap

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

and holding down is generally configurable for the dimming/solar protection ("General" settings card).

4 Display area – Display features

The lines (C, C` and D) represent the display area. In each case, these include the button pairs (F/F`, G/G` and H/H`) to the left and right.





You use the button pair (H and H`) to browse through the different feature groups (K). The selected feature group (K) is shown symbolically in the center of line (D). The following feature groups are possible:

• Switching, Switching with forced control



• Dimming



• Blind



• Shutters



Scenes



- Send values
- Show values



• Show text



• Alarms



• Room thermostat/fan controller



• System settings



These feature groups divide the eight display features into feature types, sections (lighting, solar protection, HLK, etc.) and applications. The feature groups are partitioned automatically with configuration of the actual display features and alarms.

The room thermostat and system settings selections are always available.

4.1 Display feature: Switching

The button pair (H and H`) selects the "Switching" feature group in the bottom line.

You now use the button pair (F and F`) to select the different switching channels (C), corresponding to the "Switching" features group, e.g. "Ceiling light", "Wall light", "Standard lamp".

The switching channel (C) labeling can be set in up to 3 languages at random.

97010, 102 Seiten

© Siemens AG 2013 We reserve the right to make changes without notice Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

If all display features have been programmed as "Switching", the maximum possible number of switching channels is 8.

Depending on the "Switching" display feature, the control symbols (L) and the status (C) of the switching channel are shown in the third line.



4.1.1 Switching, Off/On

Pressing the button (G') sends the corresponding command telegram (ON) immediately.

Pressing the button (G) sends the corresponding command telegram (OFF) immediately.

The received status is reflected with the display "0" or "1".

4.1.2 Switching, Toggling/Toggling

Pressing the button (G) or (G') sends the corresponding command telegram alternately (ON/OFF) immediately. The received status is reflected with the display "0" or "1".

4.1.3 Bell feature: Press On/Release Off

With the bell feature, you press the button (G) or (G') to send the "ON" command and release it to send the "OFF" command.

The status is reflected with the display of a bell symbol.

4.1.4 Bell feature: Press Off/Release On

With the bell feature, you press the button (G) or (G') to send the "OFF" command and release it to send the "ON" command.

The status is reflected with the display of a bell symbol. A separate communication object blocks and releases operation of the buttons (G and G`).

You set whether the button control is always released, permanently locked or locked via the security object if

the value of the blocking object is 1 or 0. A special display page signals blocking of the command.

4.2 Display feature: Switching, dimming

The button pair (H and H`) selects the "Switching, dimming" feature group in the bottom line.

You now use the button pair (F and F`) to select the different dimming channels (C), corresponding to the "Dimming" features group, e.g. "Ceiling light", "Wall light", "Standard lamp".

The dimming channel (C) labeling can be set in up to 3 languages at random.

If all display features have been programmed as "Switching, dimming", the maximum possible number of dimming channels is 8.

Depending on the "Switching, dimming" display feature, the control symbols (L) and the status in % (C[\]) of the dimming channel are shown in the third line.



Figure: 5

Tap the button (G`) to switch on and hold it down to brighten the lighting.

Tap the button (G[°]) to switch off and hold it down to dim the lighting.

The time, which differs between tapping and holding down the button, is generally configurable for the dimming/solar protection function by holding the button down ("General" settings card).

When "Dimming with Stop telegram" is set, as soon as a button being held down is detected, a "brighter" or "darker" dimming telegram is sent and a stop telegram on releasing the button.

The 8-bit dimming value which is received from the dimming actuator is set as a percentage from 0...100.

A separate communication object blocks and releases operation of the buttons (G and G`).

Engineering Manual

Update: http://www.siemens.de/gamma

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command.

4.3 Display feature: Switching with forced control

The button pair (H and H`) selects the "Switching" feature group in the bottom line.

You now use the button pair (F and F`) to select the different switching channels (C) for "Switching with forced control" corresponding to the "Switching" features group, e.g. "Night mode", "Night lighting".

The switching channel (C) labeling can be set in up to three languages at random.

If all display features have been programmed as "Switching with forced control", the maximum possible number of switching channels for this is 8.

Depending on the "Switching with forced control" display feature, the status symbol (L) for the actuator and the settings "forced controlled On", "forced controlled", "forced control inactive" are shown symbolically in the third line (C`).



Figure 6

Actuators with an forced control input allow certain actuator outputs to be overridden by central control interventions. This is how, for example, in Economy or night mode, switching on of certain lights or loads can be forcibly prevented. The room controller can activate forced control manually or disable automatically enabled forced control.

Tapping the button (G`) sends the "forced controlled ON" command via a 2-bit communication object immediately. Holding the button (G`) down sends a command disabling forced control.

Tapping the button (G) sends the "forced controlled OFF" command via a second 2-bit communication object immediately. Holding the button (G) down sends a command disabling forced control.

The time which differs between tapping and holding down the button is generally configurable for the Disable forced control feature ("General" settings card).

The current actuator output status (L) is analyzed separately and shown to the right or left beside the "Lock" symbol (C`) for forced control.

A special communication object blocks and releases operation of the buttons (G and G`).

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command.

4.4 Display feature: Shutters

The button pair (H and H`) selects the "Shutter" feature group in the bottom line.

You now use the button pair (F and F`) to select the different shutter channels (C), corresponding to the "Shutter" features group, e.g. "South shutter", "West shutter", "East shutter".

The shutter channel (C) labeling can be set in up to 3 languages at random.

If all display features have been programmed as "Shutter", the maximum possible number of shutter channels is 8.

Depending on the "Shutter" display feature, the control symbols (L) and the status in % (C[\]) of the shutter channel are shown in the third line.



Engineering Manual Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

Hold the button (G $\hat{}$) down to move the shutter up in a defined manner and tap it to stop the movement.

Hold the button (G) down to move the shutter down in a defined manner and tap it to stop the movement.

The time, which differs between tapping and holding down the button, is generally configurable for the dimming/solar protection function by holding the button down ("General" settings card).

The received status of the hanging height is set as a percentage from 0...100. 0% means the shutter is fully open, 100% means the shutter is fully closed.

A separate communication object blocks and releases operation of the buttons (G and G $\hat{}$).

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command. The status display is independent of the blocking.

4.5 Display feature: Venetian Blind

The button pair (H and H<math display="inline">) selects the "Blind" feature group in the bottom line.

You now use the button pair (F and F`) to select the different blind channels (C), corresponding to the "Shutter" features group, e.g. "South blind", "West blind", "East blind".

The blind channel (C) labeling can be set in up to 3 languages at random.

If all display features have been programmed as "Blind", the maximum possible number of blind channels is 8.

Depending on the "Blind" display feature, the control symbols (L) and the status in % (C`) of the blind channel are shown in the third line.



Hold the button (G`) down to move the blind up in a defined manner and tap it to stop the movement or to vary the slats by one step.

Hold the button (G) down to move the blind down in a defined manner and tap it to stop the movement or to vary the slats by one step.

The time, which differs between tapping and holding down the button, is generally configurable for the dimming/solar protection function by holding the button down ("General" settings card).

The received status of the hanging height is set as a percentage from 0...100. 0% means the blind is fully open, 100% means the blind is fully closed.

A separate communication object blocks and releases operation of the buttons (G and G`).

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command. The status display is independent of the blocking.

4.6 Display feature: Recall/save 8-bit scenes

The button pair (H and H`) selects the "Scenes" feature group in the bottom line.

You now use the button pair (F and F`) to select the different scenes (C), corresponding to the "Scenes" features group, e.g. "Presentation", "Conference", "Eco".

The scene (C) labeling can be set in up to 3 languages at random.

If all display features have been programmed as "8-bit scenes", the maximum possible number of scenes is 8.

Depending on the "Scenes" display feature, the control symbol (L) and the configured scene symbol are shown in the third row. The following representative scene symbols are available:

• Presentation



Conference



• Eco

Engineering Manual

Update: http://www.siemens.de/gamma

97010, 102 pages © Siemens AG 2013 Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

• Leave room





The "Recall/Save 8-bit scene" feature allows the user, without changing the scheduling with the ETS, to reprogram scene modules for 8-bit scene control or reprogram actuators with integrated 8-bit scene control, i.e. assign different brightness values or switching states to the relevant scene independently. Use the (G°) button to recall the scene with the set numbers (1...64). Hold the (G) button down to save the scene.

Note:

Saving scenes is only possible in administrator mode, see Section 7.8

The time, which differs between tapping and holding down the button, is generally configurable for the "save

scene feature by holding the button down" ("General" settings card).

In this feature, a single communication object transfers both the command to save a scene and the command to recall a saved scene and the number of the wanted scene via a unique communication object.

Before saving a scene, the relevant actuators must be set to the wanted brightness or switching states

with the buttons/sensors provided for this purpose. Receipt of a saving telegram prompts the contacted scene modules and actuators with integrated scene control to demand the currently set brightness values and switching states from the actuators and save them in the relevant scene.

A separate communication object blocks and releases operation of the buttons (G and G`).

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command.

4.7 Display feature: Recall/save 1-bit scenes

The button pair (H and H`) selects the "Scenes" feature group in the bottom line.

You now use the button pair (F and F`) to select the different scenes (C), corresponding to the "Scenes" features group, e.g. "Presentation", "Conference", "Eco". The scene (C) labeling can be set in up to 3 languages at random.

If all display features have been programmed as "1-bit scenes", the maximum possible number of scenes is 8.

Depending on the "Scenes" display feature, the control symbol (L) and the configured scene symbol are shown in the third row. The 8-bit scene symbols are available, see Section 4.5.



Engineering Manual

© Siemens AG 2013 We reserve the right to make changes without notice Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

This feature provides two 1-bit communication objects , one to recall the scene and another to save the scene.

Before saving a scene, the relevant actuators must be set to the wanted brightness or switching states with the buttons/sensors provided for this purpose. Receiving a saving telegram prompts the contacted scene modules to demand the currently set brightness values and switching states from the actuators and save them in the relevant scene.

With the "Recall/save 1-bit scene" feature, the user can independently, without changing the scheduling with the ETS, reprogram a device for 1-bit scene control, i.e. assign different brightness values or switching states to the individual groups of the relevant scene.

A scene is recalled with a 1-bit switching command, in which scene 1 is recalled with a "0" telegram and scene 2 with a "1" telegram.

A scene is also saved with a 1-bit switching command via another object, in which scene 1 is saved with a "0" telegram and scene 2 with a "1" telegram. Sending or saving scene 1 or scene 2 is configurable.

Use the (G`) button to recall the scene with the set number (1 or 2). Hold the (G) button down to save the scene.

Note:

Saving scenes is only possible in administrator mode, see section 7.8

The time, which differs between tapping and holding down the button, is generally configurable for the "save scene feature by holding the button down" ("General" settings card).

A special communication object blocks and releases operation of the buttons (G and G`).

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command.

4.8 Display feature: Send fixed values

The button pair (H and H $\hat{}$) selects the "Send values" feature group in the bottom line.

The button pair (F and F`) now select the various values or value types (C) to be sent, e.g. "45%", "22°C", "10000 lux".

The value labeling (C) can be set in up to 3 languages at random.

If all display features have been configured as "Send fixed values", there are 8 available channels for sending fixed values. Up to 4 values can be sent over each of the 8 channels.

Depending on the "Send fixed values" display feature, the control symbols (L) and the configured value (C`) to be sent are displayed in the third line. Depending on the value format, the appropriate unit appears behind the value, e.g. % for percentages, °C for temperatures, kLux for brightness values or m/s for wind speeds.





The (G) button selects one from a maximum of 4 values. All 4 values in a "Send fixed values" channel are of the same data type. This is how, for example, four different wind speeds, 3 m/s, 5 m/s, 10 m/s and 15 m/s for configuring a weather station are sent over a single channel. The button (G`) is used for this. The following value types are configurable:

- 8-bit decimal,
- 8-bit percent,
- 16-bit decimal,
- Temperature,
- Brightness,
- Wind speed

A special communication object blocks and releases operation of the buttons (G and G`).

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command.

Engineering Manual

4.9 Display feature: Send variable values

The button pair (H and H $\hat{}$) selects the "Send values" feature group in the bottom line.

The button pair (F and F`) now select the various values or value types (C) to be sent, e.g. "%", "°C", "lux", in order to set these as variables in the following.

The value labeling (C) can be set in up to three languages at random.

If all display features have been configured as "Send variable values", there are 8 available channels for sending variable values.

Depending on the "Send variable values" display feature, the control symbols (L) and the locally configured value (C`) to be sent are displayed in the third line. Depending on the value format, the appropriate unit appears behind the value, e.g. % for percentages, °C for temperatures, kLux for brightness values or m/s for wind speeds.

The (G`) button increments the value to be sent.

The (G) button decrements the value to be sent.

The values are sent immediately with each step. The interval can be set.

Each time the button is held down, the value is incremented or decremented cyclic for the time held down. The time, which differs between tapping and holding down the button, is generally configurable for the variable value adjustment function by holding the button down ("General" settings card).

If the values are sent by holding the button down, a telegram repeat rate ("General" settings card") must be configured in advance.

There is also the option to set configurable minimum and maximum values for the value range relevant to the appropriate data type. Only the values for the value range configured accordingly can be sent.

Display of values out of the defined range of values is possible. Pressing the button (G or G`) causes a correction for sending this value afterwards.



Figure 12

The following value types are configurable:

- 8-bit decimal,
- 8-bit percent,
- 16-bit decimal,
- Temperature,
- Brightness,
- Wind speed

A special communication object blocks and releases operation of the buttons (G and G`).

You set whether the button control is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals blocking of the command.

4.10 Display feature: Display value

The button pair (H and H`) selects the "Display values" feature group in the bottom line.

The button pair (F and F`) can now select the different received values of the communication objects for display:

- 1-bit values
- 8-bit decimal values
- 8-bit percentages
- 16-bit decimal values
- 16-bit floating point values

The value labeling (C) can be set in up to 3 languages at random.

If all display features have been configured as "Display value", up to 8 different values can be shown on the display.

The value received via the relevant communication object is shown in the third line. A physical unit can be configured appropriately for the relevant value. It is shown behind the value.

97010, 102 Seiten

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101



Figure 13

Note:

Because this feature works as a pure display feature, no commands are triggered via the buttons (G and G`) and the blocking feature remains non-operational.

4.11 Display feature: Show text

The button pair (H and H`) selects the "Display text" feature group in the bottom line.

The button pair (F and F`) select the different valuedependent text messages for display: The following types of status object are available for value-dependent text displays:

- 1-bit values
- 8-bit decimal values
- 8-bit percentages
- 16-bit decimal values
- 16-bit floating point values
- Text message via object (14 bytes)

Up to two thresholds can be configured, so you can define a maximum of three display areas. You define a text (C`) up to 8 characters in length, in 3 different languages respectively for each display area.

With the 1-bit data type, in each case an individual text (C`) can be displayed for the object values 0 and 1. This is how, for example you show the text "Open" for the value 1 and "Closed" for the value 0 in the display.

Examples: The display is dependent on a 1-bit value:

Value : 0 Value : 1 <u>Area 1 Area 2</u> 0 1

The display is dependent on a percentage value:

Threshold 1: 20 % Threshold 2: 80 %



The display is dependent on a 16-bit floating point value:

Configuration with a threshold:

Threshold 1: 10000

	Area 1	Area 2	
32768	10	000	32767

With the "Text message via object" configuration, the text content of a 14-byte communication object, as received via the KNX bus, is shown directly in the third line. The text consists of a maximum of 14 ASCII characters.

Example of level display for a tank: The status object receives a percentage value (1 byte). The threshold is set between 20% and 80%. For display area 1 (< 20%), the text is configured "low", for display area 2 (20 ... 79%), the text is "normal" and for display area 3 (> 80%) "full". Depending on the display feature "Show text", the configured text (C) is displayed in the third line. The text message labeling (C) can be set in up to 3 languages at random, e.g. "fluid level".

Engineering Manual

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101



Figure 14

If all display features have been set as "Text messages", 8 channels are available to display messages.

Note:

Because this feature works as a pure display feature, no commands are triggered via the buttons (G and G`) and the blocking feature remains non-operational.

5 Representation and feature of alarm messages

The room controller offers eight alarm features. If an alarm condition is met, then an alarm is triggered.

5.1 Alarm behavior

If an alarm message is triggered, the corresponding alarm page with the set alarm text (C'), e.g. "Fire", is shown automatically with the set alarm symbol or alarm value.

The alarm text (C) can be set in up to 3 languages at random.

These alarm symbols are selected via a parameter:





• Warning



• Window



Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg The alarm number is shown in the top left corner (J).

Wind

1))

Temperature

If a number of alarms occur concurrently, then you browse between alarms with the buttons (F and F`). All pending alarms are shown in the order in which they arrived. The alarm with the most recent time stamp has the highest alarm number.

In the feature line (I), the date, day of the week and current time are shown when an alarm is triggered.



The LED in the top right corner flashes red. If the LED has already been used previously as a green orientation or status LED, this flashes red/amber alternating with green when the alarm occurs.

In addition, an audible alarm tone can be configured when an alarm occurs. You also set whether the alarm tone sounds once for a defined time or alternates between alarm tone and silence in a defined period. A silent alarm indication is also possible in theory. An alarm event can be reported via a 1-bit communication object and via an alarm text (14-byte communication object) over the KNX bus. This selection and the alarm text to be sent in 3 languages are configurable.

97010, 102 Seiten

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

You use the button (G) to mute the alarm tone locally. If there are a number of alarms with an alarm tone, muting one alarm mutes all the alarm tones.

The button (G`) confirms the alarm locally. The alarm tone is also switched to mute. If there are a number of alarms with an alarm tone, clearing one alarm ends all the alarm tones. After clearing the alarm, the "clearance checkmark" is deleted. Clearance can be reported via a 1-bit communication object via the KNX bus.

There is also the option to confirm all pending alarms via a collective clearance over a 1-bit communication object.

To be reminded of a muted or previously confirmed alarm, you can set a repeat of the alarm tone after a defined time.

Use the (H`) button to quit the alarm page. Consequently, you can browse with the button pair (H and H`) through the different feature groups (K) to the alarms. An interim page shows whether there are pending alarms or no alarms. If alarms are pending, you can scroll to these with the button (F`).

You can block or release the alarm message via a special communication object.

You set whether the alarm message is always released or locked via the blocking object if the value of the blocking object is 1 or 0. If an alarm is blocked, there is no alarm message if an alarm condition is met.

5.2 Alarm conditions

You can set thresholds and alarm conditions for alarm activation.

The alarm conditions for activating an alarm depend on the communication object data type used in each case. The alarm conditions and data type to be used are set with the ETS configuration. The following data types are available:

- 1-bit values
- 8-bit decimal values
- 8-bit percentages
- 16-bit decimal values
- 16-bit floating point values

The following alarm conditions can be set for the "1-bit" data type:

Alarm triggering if the alarm object value = 1 or

Alarm triggering if the alarm object value = 0

You can configure one or two thresholds for all other data types.

If an alarm activation threshold has been set, the following alarm conditions lead to an alarm triggering: if the value of the alarm object:

- equals the threshold (always)
- > threshold
- < threshold
- ≥ threshold
- ≤ threshold
- exceeds the threshold (rising edge)
- falls below the threshold (trailing edge)

equals the threshold (always):

An alarm is always triggered if the alarm object value is the same as (=) the threshold. The LED in the top right corner flashes red. The time stamp is updated each time the alarm condition is again met.

If the value of the alarm object is not equal to (\neq) the threshold value and if the alarm has not yet been cleared, the LED in the top right corner lights up permanent red. Another change of the alarm value not equaling (\neq) the threshold does not lead to the value in the display being updated.

> threshold:

An alarm is always triggered if the alarm object value is > the threshold. The LED in the top right corner flashes red. The time stamp is updated each time the alarm condition is again met.

If the value of the alarm object is less than or equal to the threshold value and if the alarm has not yet been cleared, the LED in the top right corner lights up permanent red. Another change of the alarm value \leq the threshold does not lead to the value in the display being updated.

< threshold:

An alarm is always triggered if the alarm object value is < the threshold. The LED in the top right corner flashes red. The time stamp is updated each time the alarm condition is again met.

If the value of the alarm object is greater than or equal to the threshold value and if the alarm has not yet been cleared, the LED in the top right corner lights up

Engineering Manual

Update: http://www.siemens.de/gamma

97010, 102 pages © Siemens AG 2013

permanent red. Another change of the alarm value \geq the threshold does not lead to the value in the display being updated.

≥ threshold:

An alarm is always triggered if the alarm object value is \geq the threshold. The LED in the top right corner flashes red. The time stamp is updated each time the alarm condition is again met.

If the value of the alarm object is less than the threshold value and if the alarm has not yet been cleared, the LED in the top right corner lights up permanent red. Another change of the alarm value < the threshold does not lead to the value in the display being updated.

≤ threshold:

An alarm is always triggered if the alarm object value is \leq the threshold. The LED in the top right corner flashes red. The time stamp is updated each time the alarm condition is again met.

If the value of the alarm object is greater than the threshold value and if the alarm has not yet been cleared, the LED in the top right corner lights up permanent red. Another change of the alarm value > the threshold does not lead to the value in the display being updated.

exceeds the threshold (rising edge):

An alarm is triggered if the alarm object value is greater (>) than the threshold. The LED in the top right corner flashes red. The current time stamp is shown. Another alarm, i.e. if the alarm condition is again met, is not shown as a new alarm and thus does not lead to the time stamp being updated.

If the value of the alarm object is less than or equal to the threshold value and if the alarm has not yet been cleared, the LED in the top right corner lights up

permanent red. Another change of the alarm value \leq the threshold does not lead to the value in the display being updated.

If an alarm value has now been received that is less than or equal to the threshold value and as a result the alarm condition is met again (alarm object value > threshold), this alarm is shown with the current time stamp.

falls below the threshold (trailing edge):

An alarm is triggered if the alarm object value is less than (<) the threshold. The LED in the top right corner flashes red. The current time stamp is shown. Another alarm, i.e. if the alarm condition is again met, is not shown as a new alarm and thus does not lead to the time stamp being updated.

If the value of the alarm object is greater than or equal to the threshold value and if the alarm has not yet been cleared, the LED in the top right corner lights up permanent red. Another change of the alarm value \geq the threshold does not lead to the value in the display being updated.

If an alarm value has now been received that is greater than or equal to the threshold value and as a result the alarm condition is met again (alarm object value < threshold), this alarm is shown with the current time stamp.

If two alarm activation thresholds have been set, the following alarm conditions lead to an alarm triggering: if the value of the alarm object:

- is outside or equal to the threshold values
- is within or equal to the threshold values

outside or equal to the threshold values:

An alarm is always triggered if the alarm object value is outside or equal (=) to the threshold values. The LED in the top right corner flashes red. The time stamp is updated each time the alarm condition is again met. If the value of the alarm object is within the threshold values and if the alarm has not yet been cleared, the LED in the top right corner lights up permanent red. Another change of the alarm value within the threshold values does not lead to the value in the display being updated.

within or equal to the threshold values:

An alarm is always triggered if the alarm object value is within or equal (=) to the threshold values. The LED in the top right corner flashes red. The time stamp is updated each time the alarm condition is again met.

If the alarm object value is outside the threshold values and if the alarm has not yet been cleared, the LED in the top right corner lights up permanent red. Another change of the alarm value within the threshold values does not lead to the value in the display being updated.

April 2013

07B0 CO Room Control Unit 970101

Note:

The value updating is only effective if the value display is configured accordingly and not for symbol display.

If an alarm has not yet been cleared with the button (G`), but the alarm condition is no longer met, the following alarm pattern appears:



Figure 16

The alarm symbol (K, Figure 15) is deleted on the alarm page. However, the alarms feature group continues to exist.

The alarm tone is switched off.

The LED in the top right corner which was previously flashing red is now on permanently.

An alarm is deleted if it has been acknowledged and the alarm condition is no longer met.

5.3 Alarm behavior after a restart

After the room controller has been restarted, monitored alarm object values are read for a given, configurable time from 10 seconds to 5 minutes.

Only after another time from 10 seconds to 30 minutes has been set does alarm monitoring begin. This ensures that the monitored alarm objects/alarm sensors have current values and that there are sensible alarm conditions. No false alarms will be reported.

All former alarms up to this point are discarded.

Alarms will then be displayed in accordance with the alarm condition fulfilled.

6 Room temperature controller

The UP 227 room controller offers room-oriented temperature control. For this, a room controller, by recording the actual room temperature and defining a nominal value with a corresponding control algorithm, sends a control parameter to an actuator. This actuator controls a heating or cooling valve, which varies the room temperature.

The room controller also supports control of fan coil units.

A multi-speed fan blows hot or cold air into the room. This forced convection causes the room to heat up or cool down more quickly.

6.1 Device feature

The UP 227 room controller is used as a pure control device for individual room temperature control. Display and toggling of room modes, nominal temperature setting value and displaying and adjusting fan speeds are also possible. The controller works only in combination with a corresponding actuator which, functionally, includes temperature control.

Alternatively, the device features as an independent controller with a room thermostat feature. The corresponding control parameters for heating and cooling are calculated and sent to switching actuators, electronic actuators or directly to a thermal valve drive. These ways of functioning are configurable. Depending on the selection, various parameter pages and communication objects are visible.

6.2 Functional overview

The room thermostat feature has a number of feature blocks which can be combined with each other.

The room thermostat is variable as

- heating only,
- cooling only,
- heating and cooling.

The room temperature can be controlled optionally via a Two-step controller, a constant PI controller or a PI controller with sequence control.

Engineering Manual

97010, 102 pages

The following features are available:

- Switch between automatic and manual modes via the room controller or the communication object,
- Change room mode via the room controller, via the timer or communication object,
- Nominal value shift/Setting via the room controller,
- Fan speed display and adjustment,
- Interior temperature display,
- Display the active room made,
- Display heating or cooling mode,
- Display dewpoint alarm and open window.

The following partial features are included in the:

- Room temperature measurement via the internal thermostat with offset setting,
- Inclusion of a room temperature measurement via an extreme room thermostat with offset setting,
- Calculation of the current actual room temperature value (internal and external room thermostats weighted),
- Calculation of the current nominal room temperature value from basic nominal value, mode and nominal value shift,
- Track nominal room temperature in cooling mode based on outside temperature,
- Comfort mode extension through timed lifting of the pre-comfort, Economy and protection modes,
- Presence detection via the bus switches to Comfort mode.
- Dewpoint mode can be activated via the bus,
- Analysis of window states via the bus,
- Frost protection/heat protection is detected via the bus,
- Two-step control for heating and/or cooling with switching Control value output
- PI control for heating and/or cooling with constant Control value output (in %) or switching Control value output (PWM).
- Isolated or common Control value output for heating and cooling,
- Separate Control value output for basic stage (sequence 1) and supplementary stage (sequence 2) with 2-stage heating or cooling,
- Sense changing and scaling of control parameter for heating/cooling possible,
- Maximum and minimum control parameters for heating/cooling (PI control) possible,
- Mode (controller status) can be read out via the bus
- Automatic setting of the fan speed via the controller

6.2.1 Room temperature control (control):

The room temperature control can be set separately for heating and cooling. You can also vary whether the control is switchable between two room modes (comfort and protection modes), three room modes (comfort, Economy and protection modes) or four room modes (comfort, precomfort, Economy and protection mode).

Two-step controller:

A two-step controller checks the current actual temperature value at discrete intervals (cycle time). Depending on whether the actual value is above or below the nominal value, heating/cooling is switched on or off.

The control cycle time and the hysteresis for the twostep controller are variable.

The two-step controller must be configured simply and can be used for control operations in which a slight fluctuation of the room temperature is permitted.

Constant PI controller:

The PI controller computes a control parameter from the actual value and nominal value input parameters. This control parameter can be transferred as a constant control value in the range from 0...100% (Figure: 17) or as a pulse-width modulates input/output command (Figure: 18) via the KNX bus.



Figure: 17

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101





The type of Control value output, proportional range and tracking time are variable.

Sequential control:

If there are two different types of heating and cooling for a room (e.g. underfloor or radiator heating), sequence control is sensible. Both heat/cold sources are then controlled sequentially, not in parallel. Example of heating with underfloor and radiator

heating in a single room:

- If the room temperature is below the nominal value, then the underfloor heating value is opened first (sequence 1).
- If the underfloor heating valve is fully open and it is still not warm enough, the radiator valve is opened (sequence 2).
- If it is too warm in the room, the radiator valve is closed first, then the underfloor heating valve.

The sequential control converts the internal control parameters computed by the constant PI controller into two values (control parameter sequence 1, control parameter sequence 2).

The control parameter value from which sequence 2 begins is variable. From which control parameter change the control parameter is to be sent to the bus and in which intervals the control value is repeated cyclic is also separately variable for each sequence.

This control parameter is output as a constant control value in the range from 0...100% (1 byte) (Figure: 19).



Figure: 19

6.2.2 Actual value calculation:

Internal temperature sensor:

The room controller contains an integrated temperature sensor to record the room temperature in the range from 0° C to +50°C with a resolution of at least 0.08°K. This actual internal value can be compensated by means of a variable offset to environmental factors (e.g. when fitting in a cold outside wall). The corrected value is used for actual value determination.

The sensor values are sent via a separate communication object. The send interval is variable over time or dependent on the value change.

A configurable "hysteresis" prevents very small temperature fluctuations from leading constantly to new actual values.

External temperature sensor:

The room controller also has an additional object for the temperature value measured by an external temperature sensor. This object can send "Read Criteria" cyclically if necessary to the corresponding external temperature sensor object, so that this then transfers the current value. However, in theory, an external sensor should send any temperature change automatically. A variable offset can also be configured for the external temperature value.

After a bus power cut, the ETS-value is used for the outside temperature value which was configured in the parameter "Basic value, outside temperature and external inside temperature on restart" is used. This means that the program immediately has a sensible starting value when the bus voltage returns.

Engineering Manual

Update: http://www.siemens.de/gamma

97010, 102 pages

Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

 $\ensuremath{\textcircled{}}$ Siemens AG 2013 We reserve the right to make changes without notice

Room temperature - actual value:

From the temperatures of the integrated and external sensors, the program computes the current actual value for room temperature, taking into account a configurable "Weighting". From the "Weighting", the program determines what percentage of the externally measured temperature value is included in the computation of the actual temperature value.

The actual room temperature computed in this manner (from both sensors) can be sent automatically or even cyclically via a separate object on changing a configurable value.

6.2.3 Setpoint value setting/Setpoint value computation:

The current setpoint value is determined from

- the current room mode,
- the basic setpoint value and
- a setpoint value shift, to be included if need be.

The nominal value setting is always related to the comfort mode (basic setpoint value).

The basic setpoint value can be changed either via the communication object "Basic setpoint value (in $^{\circ}C$)" or set to a fixed value via a parameter "Basic setpoint value, outside temperature and external inside temperature on restart".

On defining the basic setpoint value via the communication object, the controller demands the current value at the bus independently.

From the thermostat settings, a direct setpoint value setting in the range from 16...26°C can be made.

On the other hand, the setpoint value can be shifted in a range between -5K and +5K (lower values can be set) to a higher or lower value.

You use a parameter to set which of the two operating alternatives is possible at a given time.

Accordingly, the setpoint value is shown in the display as a temperature in °C/°F or shift of the basic setpoint value in Kelvin on the room thermostat control page.

If a basic setpoint value is received, then the (total) setpoint value and the setpoint value shift are always sent. By receiving a new basic setpoint value the setpoint value shift is reset to 0 K.

If the setpoint value is changed by an operation at the device, then the (total) setpoint value and the setpoint value shift are always sent. By setting values for the

setpoint value shift to the object it is possible to change the setpoint value for the display with an external button. Tracking setpoint room temperature in cooling mode

based on outside temperature, A further object - "Temperature, outside sensor (in °C)" - is required for tracking the room temperature in cooling mode based on the outside temperature feature. If the outside temperature is above 26°C and about 6K above the current setpoint temperature, the current setpoint temperature is set to a value 6K below the outside temperature, but not higher than the temperature for heat protection. In this case, shifts in the setpoint value or changes to modes are also possible. With the new setpoint temperature generated in this way, you should again proceed as described above. Exceptions are protection mode (heat protection) and the dew point alarm. After a bus power cut, the temperature value which was configured in the parameter "Basic value, outside temperature and external inside temperature on restart" is used. The outside temperature object is polled afterwards. The outside sensor object is present only for the cooling mode.

6.2.4 Room operating modes:

Depending on the current use of the room, the requirements for room temperature control may differ. Several modes, which are assigned different nominal values in each case, are therefore available.

- Comfort mode,
- Pre-comfort mode,
- Economy mode,
- Protection mode.

Modes can be changed automatically (automatic mode) or manually (manual mode).

We reserve the right to make changes without notice

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101



Figure: 20

Automatic/manual mode:

In automatic mode, modes are changed either by external bus telegrams or by internal timer programs. Switching commands from the other control type in each case are ignored.

Automatic mode is shown as such in the display via an "A".

The "Automatic mode via" parameter sets which type of automatic mode is to be active.

In manual mode, there is the option to set a room mode manually via the room controller.

A mode activated permanently in manual mode cannot be changed by external bus telegrams, the internal timer program or presence detector. A change to constant protection mode is possible.

Automatic mode can be reactivated locally via the room controller or via the corresponding communication object.

Settings in manual mode are possible only if the device is not in constant protection mode.

Comfort mode:

This room mode is indicated by the corresponding symbol in the display. The nominal value in room mode does not depend on whether heating or cooling is active. It equates either to the value set directly on the controller display or to that computed from the basic nominal value and the set nominal value shift.

Comfort mode can also be activated via a presence detector. A communication object required for this can be configured. In manual mode, presence detector telegrams are ignored.

Dead zone:

If the room thermostat is configured for heating & cooling, a symmetrical dead zone between heating and cooling will be defined to ensure that heating valve and cooling valve are not open at the same time. The size of the dead zone between heating and cooling

will be determined by the dead zone parameter. The following rules apply:

- The dead zone is symmetrical about the nominal temperature range.
- On power returning, the actual room temperature T is polled and heating or cooling mode is set depending on the result:
 - T < nominal value: Heating;
 - $T \ge$ nominal value: Cooling.
- The dead zone is active only in comfort mode.

Comfort extension:

If while operating without presence detectors and with windows closed, "Energy Saving mode" or "Protection mode" are switched on in automatic mode, then "Comfort mode" can be switched on for a limited time (the variable "Comfort extension" by means of a local operation at the room controller.

Activation or premature ending of comfort extension is only possible locally.

Comfort extension should be viewed as a conventional timer. In other words, if the controller is not already in comfort mode, the comfort extension changes it into comfort mode for a limited period. This is then also analyzed as a new (temporary) mode and therefore sent accordingly.

After comfort extension has elapsed or it is ended actively, the controller reverts to its former mode, unless bus telegrams for an operation mode shift have received or an internal time program has switched the operating mode. In the latter cases, it does not revert to the last active mode, but is switched to the mode stipulated by the bus objects or time program.

Local mode changeover ("Comfort", "Pre-comfort", "Economy" and "Protection" modes) is, unlike the bus changeover telegram, executed immediately and therefore end the comfort extension.

Engineering Manual

Update: http://www.siemens.de/gamma

97010, 102 pages

Pre-comfort mode (standby mode):

This room mode is indicated by the corresponding symbol in the display. The nominal value in "Pre-comfort" room mode depends on whether heating or cooling is active. With heating, the nominal pre-comfort mode value equals the basic nominal value minus the pre-comfort mode temperature drop and with cooling, the basic nominal value plus the pre-comfort mode temperature rise, in each case plus or minus the set nominal value shift. The values for lowering and raising in pre-comfort mode are variable via parameters.

The changeover to room "Pre-comfort Mode" can be made via the bus or by means of timer programs. Also, a room user can, when leaving the room, change from the room "Comfort Mode" to "Pre-Comfort Mode" and revert to "Comfort Mode" on entering the room directly at the room controller. The room's user can also change from another room mode to "Pre-comfort Mode" or switch from this to any other room mode directly at the room controller (manual mode).

Economy mode:

This room mode is indicated by the corresponding symbol in the display. The nominal value in "Economy" room mode depends on whether heating or cooling is active. With heating, the nominal Economy mode value equals the basic nominal value minus the Economy mode temperature drop and with cooling, the basic nominal value plus the Economy mode temperature rise, in each case plus or minus the set nominal value shift. The values for lowering and raising in Economy mode are variable via parameters. They must be larger than (>) the parameters for Pre-comfort mode. If they are set lower, then the precomfort mode will be used internally for calculations.

Changeover in this mode is possible via the bus or by means of timer programs. If the controller recognizes only two or three room modes, then you can switch between "Comfort mode" and "Economy mode" directly at the room controller. The room's user can also change from another room mode to "Economy mode" or switch from this to any other room mode directly at the room controller (manual mode).

Protection mode (Frost protection/Heat protection):

This room mode is indicated by the corresponding symbol in the display. The nominal value in this mode depends exclusively on whether heating or cooling is active. In heating, the nominal value equals the "Frost Protection" value, variable by means of a parameter and in heating the "Heat Protection" value, variable by means of a parameter. Changeover in this mode is possible at any time via a received command telegram or by means of timer programs. A received status telegram "Window = UP" also makes the change to protection mode. The room's user can also change from another room mode to "Protection Mode" or switch from this to any other room mode directly at the room controller (manual mode).

Constant protection mode:

If you want to switch the room thermostat permanently to protection mode (e.g. during a holiday), then the special communication object "Permanent Protection Mode" is available. If the room "Protection Mode" is switched on via this object, then it can only be switched off again by this object.

A changeover directly at the room controller and receipt of all telegrams or timer commands, which relate to a mode change, will be ignored while in protection mode.

If constant protection mode is switched off by telegram in automatic mode, the controller changes to the room mode which is activated at this time by internal timer program or bus telegram.

If constant protection mode is switched off by telegram in manual mode, the controller changes after deactivation of constant protection mode to Economy mode (if this mode is available, otherwise protection mode remains active).

Status of windows:

The window status analysis allows the controller to respond to the opening of windows or doors. For this purpose, up to four window objects can be assigned. These are interlinked in the controller via a logical OR feature. If one or more of the window objects are set to logical One (window open), then there is a switch to protection mode, i.e. the nominal room temperature value is set to the frost protection value for heating and for cooling to the heat protection value. The present mode with a window open is saved. If all windows are closed again (i.e. all window objects are again at logical 0), then there is a switch to the saved mode (which existed before opening the first window) or to that during opening via the bus or timer programs or to the new mode received via local operation and saved meanwhile. Another parameter controls whether the opening of a window should lead immediately or only after a time delay (e.g. 15, 30 or 60 seconds) to a changeover to protection mode, so that, if need be, there is no response to a window open for a short time.

Dew point mode:

If, in cooling mode with a cooling cover, the controller responds to the dewpoint monitor fixed to it, then it

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

switches internally to "dewpoint" mode. For this purpose, the cooling cover valve is closed completely while the dewpoint alarm is present. A switched "dewpoint mode" can be indicated by a corresponding message/symbol in the display.

The dewpoint alarm signal is received from a dewpoint monitor via a corresponding communication object.

If a change is made while in dewpoint mode to another mode (e.g. by means of a bus telegram or by means of internal timer programs), the mew mode is only active after dewpoint mode is ended.

Presence:

The controller includes an optional object for the "Presence" status for use in rooms with a presence detector. The "Presence object visible" parameter decides whether the Presence communication object is to be added.

Messages via this communication object are analyzed to activate the Comfort room mode.

If a presence telegram is received, comfort mode is switched on.

If a Presence = OFF telegram is received in presence, the controller changes immediately to the room mode that is activated by internal timer program or bus telegram. Opening a window with presence activates protection mode.

In manual mode and in protection mode, presence detector telegrams are ignored respectively abolished.

Mode change via the bus:

In automatic mode, the mode can be changed, inter alia, by external bus telegrams.

Setting via 1-bit objects:

Four 1-bit objects are available at the temperature controller for changing room mode. For switching to comfort, pre-comfort, Economy or protection mode, a single ON command to the corresponding 1-bit object will suffice.

Mode changing by telegram is shown immediately on the display, but only accepted by the controller after 3 seconds.

All communication objects in which the switching status has changed by switching to the new room mode are sent automatically.

The "Frost Alarm" and "Heating Alarm" states and the operating mode "Heating/Cooling" will be determined by

the controller independently and sent via these objects. In 2-wire systems with a heat exchanger and an actuator valve, in which either cold or hot water flows through the network, however, the controller must be switched to the current operating mode in each case via the bus and the "Heating/Cooling" object.

The controller can be switched on and off with another 1bit object - "Controller".

Setting via 8-bit objects:

Two 1-byte communication objects can also be used to change room mode and status display. This are for use as an option.

You use a parameter - "8-bit object room mode/room mode status" - to set whether the room mode should also be switched via an 8-bit object and the current room mode sent via an 8-bit status object. In each case, the following mode is assigned the following object values:

- An arriving 0 (automatic mode) deactivates manual mode and activates automatic mode. The room mode is set to the last mode received via the bus.
- A 1 arriving (in automatic mode) activates comfort mode.
- A 2 arriving (in automatic mode) activates precomfort mode.
- A 3 arriving (in automatic mode) activates Economy mode.
- A 4 arriving (in automatic mode) activates protection mode.
- Telegrams with values other than 0, 1, 2, 3 and 4 are discarded as false.
- Telegrams with modes that are not available with the controller are discarded as false.

6.2.5 Fan control

The UP 227 room controller can be used to operate a FCU controller of the REG 540/01 or REG 540/11 type or to operate a FCU controller of the RXB21 type.

It is also used to operate and control a Fan Coil Unit or another corresponding source (e.g. N 512/11, N 512/21, etc.).

You use a parameter to set whether the room controller can also control a fan. If a fan is controlled, then another parameter sets the number of fan speeds (1 to 3).

1-bit communication objects are available, depending on the number of configured fan speeds. The value = ON transfers the relevant switching speed to the Fan Coil Actuator.

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

An 8-bit communication object is also available. This sends the speed directly in % as a constant value. Figure 21 is used to recalculate the fan speeds at a constant value. The thresholds for intervals can be configured, e.g. if the fan speed is 2 with three fan speeds, the speed is 67%.

Fan speed	Number of configured fan speeds		
	1	2	3
OFF	0 %	0 %	0 %
1	1 – 100 %	1– 50 %	1– 33 %
2	0	51 – 100 %	34 – 67 %
3	0		68 – 100 %

Figure: 21

In manual mode, there is the option to set a fan speed manually via the room controller.

A parameter can also block this manual control.

If a fan speed of 0 is set by hand, then the fan is switched off. An open heating or cooling valve is closed. This means the room is then neither heated nor cooled. If the nominal value for heating protection is exceeded or that for frost protection not reached as a result, the controller responds as follows:

- The fan switches to automatic fan mode. A nominal value is generated with the present mode (comfort mode, etc.).
- The controller heats or cools until the nominal frost or heat protection value is reached.
- The fan also remains in automatic mode after these values are reached.
- The heating/cooling valve remains open until the active nominal value which was active before changing to fan speed 0 is reached

Automatic fan speed activation

The fan switches to automatic mode if one of the following conditions is reached:

- Change of room mode by means of bus telegrams or the internal timer program,
- Manual setting directly on the room controller,
- Failure to reach the frost protection nominal value or breaching the heat protection nominal value and the automatic changeover to "Protection" mode associated with this.

If fan speeds are controlled automatically with a constant speed controller, the fan speeds are set based on the heating or cooling control variable. This percentage control value is again formed via the set

threshold values on fan speeds 1 to 3. According to Figure 21, e.g. the control parameter 50% equals fan speed 2 with three fan speeds.

With automatic fan speeds controlled by a two level controller, fan speeds are set to the current setpoint value based on the temperature difference:

- A temperature difference of 1 K switches to fan speed 1.
- A temperature difference of 2 K switches to fan speed 2.

• A temperature difference of 3 K switches to fan speed 3. In each case, the hysteresis is 0.5 Kelvin.

If the fan coil actuator has status objects for the fan speeds, then these can be indicated on the room controller display as current values. If the actuator delivers a constant value in % for the status, this is depicted at a corresponding fan speed according to Figure 21. If the actuator delivers 1-bit values for the fan speed status, these are indicated directly. This selection of communication objects can be set with the "Fan speed display" parameter.

A parameter "Fan start-up speed" also determines the speed at which the fan starts for 3 seconds. This ensures that the fan also runs safely even at a low fan speed. It would be sensible to set this value to a speed higher than fan speed 1.

Another parameter, "Fan speed hold time," also sets a changeover delay in automatic mode between individual fan speeds.

A special, configurable 1-bit communication object -"(Send" fan mode" is used to control the different fan coil controllers.

The parameter "Release automatic mode with" sets whether the object value "1" or "0" is sent or whether an incoming "1" or "0" is used to change automatic mode for the fan.

To use a FCU controller of the REG 540 type, the value "1" must be sent to the REG 540 on de-activating manual mode at the room controller. The FCU controller is then to set the fan speed automatically once more.

The value "1" must be sent to the RXB21 on changing to manual mode at the room controller to use a FCU controller of the RXB21 type.

We reserve the right to make changes without notice

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

6.3 Display and use of the room thermostat/fan:

Indications and settings for room temperature control and fan control are displayed on special pages on the room controller.

As with the display features, the top area contains the feature line, with both fixed feature buttons right and left. In the center of the feature line, between the two fixed feature buttons, you can display a variety of room temperature or fan control, e.g. inside temperature, room mode, window status, dewpoint mode. This display is configurable.

To access the room temperature controller display pages, navigate with the button pair (H and H^{\circ}) in the bottom line to the feature group "Room temperature controller/fan control (K), see Figure 22.

The button pair (F and F`) now select the different room temperature controller/fan control setting pages. These are the display pages:

- for setting room modes, automatic (Figure 22),
- for setting the setpoint temperature/setpoint temperature shift (Figure 23/24),
- for setting comfort extension (Figure 25),
- for setting fan speed (Figure 26),

6.3.1 Room mode display and setting



Figure: 22

For example, the feature line displays the inside temperature (I) in $^\circ\!\mathrm{C}.$

Now use the button pair (F and F`) to select the room mode (C) from the different room controller settings. The current mode (C`), comfort mode, is displayed in the center of line 3.

Use the button pair (G and G`) to set the room mode manually on the room controller. Depending on the configuration, you can change between room modes - comfort mode, pre-comfort mode, Economy mode and protection mode.

. Set the room mode manually to show the manual mode symbol (L) beside the room mode.

Use the button pair (G and G`) to change locally to automatic mode. Accordingly, this automatic status (L) is shown beside the room mode. When changing to automatic, the last mode before the change to manual mode or the wanted mode sent meanwhile by bus telegram or timer is set.

Note:

If the room temperature controller is in permanent protection mode, you cannot change the room mode manually. In this case, a special display page signaling this appears.

You can block or release mode change with a special communication object.

You set whether mode change is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals mode change blocking.

6.3.2 Setting of the setpoint temperature or setpoint value shift

For example, the feature line displays the inside temperature (I) in $^\circ\!\mathrm{C}.$

Now use the button pair (F and F`) to set the setpoint temperature/setpoint temperature shift (C) from the different room temperature controller settings.

The current value (C°) is displayed in the center of line 3.

Engineering Manual



Figure: 23

The setpoint value shift can be displayed or set with two different strategies - see Section 6.2.3. The setpoint value setting is selected via the parameter "Setpoint value setting on display".

A direct setpoint value setting (Figure 23) sets the setpoint value (C`) in a range between $16^{\circ}C$ and $26^{\circ}C$ in 0.1K steps.

The (G^{\prime}) button increments the value to be sent.

The (G) button decrements the value to be sent.

Each time the button is held down, the value is incremented or decremented cyclically for the time held down.

The temperature (C`) can be shown in degrees Celsius (°C) or degrees Fahrenheit (°F).

The setpoint value shift setting (Figure 24) shifts the setpoint value in a range from a maximum of -5K or + 5K (C[°]) in 0.1K steps. This permissible range for the setpoint value shift is set with the parameter "Setpoint value shift range".



The (G) button increments the value to be sent. The (G) button decrements the value to be sent.

Each time the button is held down, the value is incremented or decremented cyclically for the time held down.

You can block or release the nominal value setting/setpoint value shift via a special communication object.

You can set whether nominal value setting/setpoint value shift is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals setpoint value setting/setpoint value shift blocking.

6.3.3 Setting the Comfort Extension

For example, the feature line (Figure 25) displays the inside temperature (I) in $^{\circ}$ C.

Now use the button pair (F and F) to select the comfort extension from the different room temperature controller settings.

The time to extend comfort mode (C`) is displayed in minutes in the center of line 3. The time to extend this mode is set via the parameter "Comfort extension time" and shown accordingly (C') on pressing button (G`).



The comfort mode setting appears only in automatic mode, if no mode switching via a presence detector object is configured, see Section 6.2.4.

Use the button (G`) to start comfort extension. After comfort extension is started, the residual run time in minutes is counted down and displayed accordingly (C`).

© Siemens AG 2013 We reserve the right to make changes without notice Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

Use the button (G) to end comfort extension at any time.

If the button (G`) is pressed again while comfort extension is already started, then the set time for comfort extension if started again completely and shown (=) retriggered).

Note:

If the room temperature is in permanent protection mode, comfort extension is not possible. In this case, a special display page signaling this appears.

6.3.4 Setting fan speeds

Fan speeds can only be set if "Yes" has been set via the parameter "Fan available."

For example, the feature line (Figure 26) displays the inside temperature (I) in $^{\circ}$ C.

Now use the button pair (F and F`) to select the fan setting (C) from the different room controller settings. The current fan speed (C`) is displayed in the center of line 3.



Use the button pair (G and G`) to set fan speeds manually on the room controller. Changes are made in manual mode at the same time. Depending on the parameter "Number of speeds", you can change between fan speeds 0, 1, 2 or 3.

Set the fan speed manually to show the manual mode symbol (L) beside the fan speed.

Use the button pair (G and G) to change locally to automatic mode. Accordingly, this automatic status (L) is shown beside the fan speed.

You can block or release the fan setting with a special communication object.

You set whether fan setting is always released, permanently locked or locked via the security object if the value of the blocking object is 1 or 0. A special display page signals fan setting blocking.

7 System Settings

Besides manual setting of date and time, the room controller offers the option to implement certain display and language settings directly at the device.

Each system setting is displayed on a separate system page. These various settings are grouped under the feature group "System settings":

- Setting the display background illumination
- Setting the background color (white or blue)
- Setting the time until the display illumination switches off
- Setting the clock time
- Setting the date
- Setting the control language
- Setting the system language

7.1 Setting the display background illumination

By way of example, the system language (I) is shown in the feature line, e.g. German, see Section 7.7.

The button pair (H and H $^{\circ}$) selects the "System settings" feature group (K) in the bottom line.

You now use the button pair (F and F`) to select the different system settings (C), corresponding to the selected features group, e.g. "Brightness".



© Siemens AG 2013 We reserve the right to make changes without notice

97010, 102 pages

Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

Engineering Manual

Update: http://www.siemens.de/gamma

Use the button pair (G and G`) to change the brightness of the display background illumination. The brightness (C`) is shown in %. It can be changed in

a range from 0% to 100% in 10% steps.

The (G`) button increments the brightness.

The (G) button decrements the brightness.

Each time the button is held down, the value is incremented or decremented cyclically for the time held down.

7.2 Setting the background color (white or blue)

By way of example, the system language (I) is shown in the feature line, e.g. German, see Section 7.7.

The button pair (H and H`) selects the "System settings" feature group (K) in the bottom line.

You now use the button pair (F and F`) to select the different system settings (C), corresponding to the selected features group, e.g. "Color".





Now use the button pair (G and G`) to change the display background illumination between White and Blue.

The current background color (C`) is displayed in the center of line 3.

7.3 Setting the time until switch to standby

By way of example, the system language (I) is shown in the feature line, e.g. German, see Section 7.7.

The button pair (H and H`) selects the "System settings" feature group (K) in the bottom line.

You now use the button pair (F and F`) to select the different system settings (C), corresponding to the selected features group, e.g. "Time Out".



Figure: 29

Use the button pair (G and G`) to set the time until the display switches to standby.

The time to standby (C`) is shown in seconds. It can be changed in a range from 5 to 20 seconds in 1 second steps.

The (G`) button increments the time.

The (G) button decrements the time.

Each time the button is held down, the value is incremented or decremented cyclically for the time held down.

If the room controller is not used after this set time, the display background illumination moves into a darkened state. This darkened state is set via the parameter "Display brightness in the standby state". The display page in the standby state is also defined via the parameter "Display mode in the standby state".

7.4 Setting the clock time

By way of example, the system language (I) is shown in the feature line, e.g. German, see Section 7.7.

The button pair (H and H`) selects the "System settings" feature group (K) in the bottom line.

You now use the button pair (F and F`) to select the different system settings (C), corresponding to the selected features group, e.g. "Time".

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101



Note:

Setting the clock time is only possible in administrator mode, see Section 7.8

The time is displayed in two blocks. The first block (C`) represents the hours and the second block (L) the minutes.

The following presentations are possible: 0...24 or 0...12 (AM/PM).

This setting is implemented via the parameter "Time presentation".

The (G`) button initially marks the hours block (C`).

The (G[°]) button increments the hours. It increments by one hour each time it is pressed.

Holding the button down increments the time cyclically for the time it is pressed.

The (G`) button navigates to the next block for setting the minutes. The minutes block must also be marked here.

The (G) button increments the minutes. It increments by one minute each time it is pressed.

Holding the button down increments the time cyclically for the time it is pressed.

If you use the button pair (F) or (F^{\cdot}) to change to another system setting or the button pair (H) or (H^{\cdot}) to change to another feature group, the set time is accepted.

7.5 Setting the date

By way of example, the system language (I) is shown in the feature line, e.g. German, see Section 7.7. The button pair (H and H`) selects the "System settings" feature group (K) in the bottom line. You now use the button pair (F and F`) to select the different system settings (C), corresponding to the selected features group, e.g. "Date".



Note:

Setting the date is only possible in administrator mode, see Section 7.8

The date is displayed in 3 blocks. The first block (C`) represents the days, the second block (L) the months and the third block (M) the years.

The following presentations are possible: DD-MM-YYYY, YYYY-MM-DD or MM-DD-YYYY

This setting is implemented via the parameter "Date presentation".

The (G`) button initially marks the days block (C`).

The (G) button increments the days. It increments by one day each time it is pressed.

Holding the button down increments the time cyclically for the time it is pressed.

The (G`) button navigates to the next block for setting the months. This block must be marked.

The (G) button increments the months. It increments by one month each time it is pressed.

Holding the button down increments the time cyclically for the time it is pressed.

The (G`) button navigates to the next block for setting the years.

The (G) button increments the years. It increments by one year each time it is pressed.

Holding the button down increments the time cyclically for the time it is pressed.

If you use the button pair (F) or (F`) to change to another system setting or the button pair (H) or (H`) to

Engineering Manual

© Siemens AG 2013 We reserve the right to make changes without notice

97010, 102 pages

change to another feature group, the set date is accepted.

7.6 Setting the control language

By way of example, the system language (I) is shown in the feature line, e.g. German, see Section 7.7.

The button pair (H and H $\hat{}$) selects the "System settings" feature group (K) in the bottom line.

You now use the button pair (F and F`) to select the different system settings (C), corresponding to the selected features group, e.g. "Language".



Use the button pair (G and G`) to change the control language. You can choose from three languages.

These three different control languages are created individually via the settings. There are 3 options for language input, e.g. in German, in English and in Spanish for describing the display features and alarms, for displaying text messages and sending alarm messages.

The current control language (C°) is displayed in the center of line 3.

7.7 Setting the system language

By way of example, the system language (I) is shown in the feature line, e.g. German.



The button pair (H and H`) selects the "System settings" feature group (K) in the bottom line.

Now use the button pair (E and E`) to set the different system languages (C), e.g. "German".

You can choose between German, English, French, Italian and Spanish. The system settings (brightness, color, time out, time, date, control language, weekdays in the timer program), room temperature controller settings (mode, setpoint temperature (see Figure 34), comfort extension, fan speeds) and the Administrator mode, factory settings and programming mode are performed in this selected language.

These 5 system languages are stored permanently in the room controller regardless of the configuration.

Example: The selected system language was English. As shown in Figure 34, the nominal value setting (C) is shown in English inside the feature group "Room temperature controller/Fan control".



Figure: 34

97010, 102 Seiten

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

7.8 Administrator mode

Administrator mode protects against unwanted operations and settings. Scene storage, date and time setting and configuration of timer features is only possible in administrator mode.

This mode can be set permanently or switched off via a specific local operation at the room controller or via an operation at the room controller and a communication object.

For this, you must hold down the buttons (F and F`) in the feature group "System settings" simultaneously for at least 5 seconds. The following setting appears, see Figure 35:



Figure: 35

The Administrator mode setting is in line 3. Use the (G°) button to switch between On mode "1" or Off mode "0". You can also quit Administrator mode after a time to be set.

Use the button (H`) to end setting.

7.9 Factory settings

If factory settings are activated, then all system settings are reset to their factory values.

• Display background illumination: 60%

 Display background color: 	white
 Time to standby: 	15 seconds
• Time:	00:00
• Date:	01.01.2012
 Control language: 	Language 1
 System language: 	English

All parameter settings in the ETS are also set to their standard values.

To set the factory settings, you must hold down the buttons (F and F`) in the feature group "System settings" simultaneously for at least 5 seconds. The setting in Figure 35 appears.

The factory settings are in line 2. The F key restarts the room controller with the factory settings.

Note:

After resetting to the factory settings, you must assign the physical address and download the application, see Section 7.10.

The input of the timer jobs to the weekly time switching program are deleted, see Section 8.1

7.10 Address assignment

In programming mode, you access the feature group "System settings" by pressing the buttons (F and F`) for at least 5 seconds. The setting in Figure 35 appears.

The E` button in the top line enables and disables programming mode. The LED (Figure 1, (A)) lights red and indicates the activated programming mode. After accepting the physical address, the LED extinguishes and programming mode is ended.

Note:

On first commissioning of the device, before the first application download, this special system page for address assignment, administrator mode and factory settings will be called up automatically. It is used exclusively for setting the programming mode. Setting administrator mode and resetting to the factory settings is not possible in this case.

8 Weekly time switching program

You can set up to 40 timer jobs on the weekly timer directly at the room controller. The user can enter weekly timer commands for each of the 8 configurable user features, as well as for setting the 4 room modes and fan automation.

8.1 Configuring the weekly timer program

Setting timer switch tasks using the weekly timer program is as described in the example below:

Engineering Manual

Example:

On Monday, Tuesday and Friday, the light is to be switched on at 9 a.m.

The button pair (H and H`) selects the "Switching" feature group in the bottom line, Figure 4.

You now use the button pair (F and F`) to select the different switching channels (C), corresponding to the "Switching" features group (K), e.g. "Light", Figure 4.

By pressing the buttons (F) and (F`) simultaneously for at least 5 seconds, you access the weekly timer program setting (see Figure 36) for the light switching feature.



Figure: 36

The name (I) of the illumination channel to be set is shown in the center of the feature line.

The timer task number (1 to 40) appears in the right field (J°) of the feature linen(e.g. 1).

The button (E`) selects the timer task number in which the timer command is to be stored. If a timer command is already stored under a number, its setting is displayed.

The button (E) accesses editing mode for the timer task. This is indicated by the display "SET" in the left field (J) of the feature line.

Line 2 shows the clock time to be set. The time is displayed in 2 blocks. The first block (C) represents the hours and the second block (C') the minutes.

The (F) button increments the hours, e.g. 9 a.m. It increments by one hour each time it is pressed.

Holding the button down increments the time cyclically for the time it is pressed.

The (F) button increments the minutes, e.g. 00 minutes. It increments by one minute each time it is pressed. Holding the button down increments the time cyclically for the time it is pressed. The setting is accepted immediately.

The weekday to be set is shown in the left field (K) of line 3. The (G) button selects the weekday (Mon – Sun), e.g. Monday, Tuesday and Friday.

Line 4 shows the weekdays (1 - 7). The button (H) activates the weekday selected in line 3. This is signaled by means of an underline below the relevant weekday. The button (H) de-activates the weekday selected in line 3. The underline below the weekday in question is deleted. The setting is accepted immediately.

The relevant value corresponding to the feature is shown in the right field (L) of line 3. The button (G`) selects, say On "1" or Off "0" for a switching command or, say, 0 -100% for a dimming command. The setting is accepted immediately.

The button (E) sets the selected timer command to active. This activation status is indicated by the clock symbol in the left field (J) of the feature line.

Holding the button (E) down for at least 2 seconds deletes the timer command setting.

The button (H`) ends the weekly timer program.

Note:

Setting timer tasks is only possible in administrator mode, see Section 7.8

April 2013

07B0 CO Room Control Unit 970101

Parameters and communication objects 9

This Section gives an overview of the available communication objects and parameters.

Maximum number of group addresses: 252 Maximum number of assignments: 255

Note

Number and type of available communication objects can vary, depending on the parameter settings.

You use the ETS to assign specific parameters and addresses and to transfer them to the bus device. The firmware is loaded into the device from the works.

Engineering Tool Software (ETS), version ETS3.0f or later is needed to load the application program.

9.1 Parameters in general

General		
Display	Timer settings	
Behaviour after bus voltage recovery	Detect long key press for dimming	0.5 seconds 🗸
Info area (Line 1)	and solar protection after	
1st function	Detect long key press for saving	5.0 seconds 🔹
2nd function	scenes after	
3rd function	Detect long key press for disabling	1.0 seconds 🗸
4th function	forced control after	
5th, function	Detect long key press for sending	0.5 seconds 🗸
6th function	variable value after	
7th, function	Period for sending variable value	1.0 seconds 🗸
8th function		
Alarm - General		
Controller - General	Clock settings	
Operating mode, controller	Internal clock	synchronised with external timer
Operating mode, room		
Frost/beat alarm	Date and time via	separate objects 🔹
Temperature, actual value	Display mode time	0 24 -
Temperature, setpoint values	bispidy mode and	• · · · · ·
Heating, PI-control	Display mode date	DD-MM-YY
Heating, valve		
Cooling, PI-control	Automatic switch between daylight saving time	yes 🔹
Cooling, valve		
	Daylight saving time begins at	last Sunday 🗸
	In month	March
	Daylight saving time ends at	last Sunday 🗸 🗸
	In month	October
	Handling	
	Audio feedback when button pressed	yes 🔹
	Status/orientation LED (green)	Off •
	(3)	
	Administrator mode	selectable at the device
	Abandon administrator mode after	never 🔹
	Temperature	
	Display temperature in	degree Celsius 🗸

97010, 102 pages

9.1.1 Timer settings

Parameter	Settings	
Detect long key press for dimming and solar protection after	0.5 , 0.6, 0.8. 1.0, 1.2,1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0	
This parameter sets the time threshold for the difference between tapping and holding down the button to switch on or dim the lights and to adjust the slats or move the blind.		
or Stop/Slat adjustment cor and, if the button is held do (brighter/darker) or blind mov	nmand (Up/Down) is sent own, a dimming command /ement command.	
Detect long key press for saving scenes after	0.5, 0.6, 0.8. 1.0, 1.2,1.5, 2.0, 2.5, 3.0, 4.0, 5.0 , 6.0, 7.0	
This parameter sets the time t between tapping and holding save a scene.	threshold for the difference down a button to recall or	
and, if it is held down, a com	mand to save it.	
Detect long key press for disabling forced control after	0.5, 0.6, 0.8. 1.0 , 1.2,1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 7.0	
This parameter sets the time threshold for the difference between tapping and holding down a button to enable or disable override		
Tapping a button sends an override ON or override OFF command and holding it down an override inactive		
Detect long key press for sending variable value after	0.5, 0.6, 0.8, 1.0, 1.2 1.5, 2.0	
This parameter sets the time threshold for the difference between tapping and holding down a button for one- time or cyclical sending of telegrams with value adjustment. If a button is tapped, a value that is incremented or decremented about the set interval is sent once and if it		
is held down, cyclically.		
Period for sending variable value	0.5, 0.6, 0.8, 1.0 , 1.2 1.5, 2.0	
This parameter sets the cycle time after which, if the button is held down, a new value, incremented or		

9.1.2 Clock settings

Parameter	Setting
Internal clock	needs external time transmitter
The date and time are set manually via system control and synchronized via the bus as well. An external time transmitter delivering the precise time and precise date as time master via the "Time" and "Date" objects is needed for precise time and date display. This parameter is an information.	
Date and time via	separate objects common object
This parameter determines settings are to be synchror objects, "Time" and "Date" object "Time & Date".	whether the time and date nized via 2 individual 3-byte " or via a common 8-byte
Display mode time	024 012 (AM/PM)
hour display appears in the setting "024" (him), where he: is from 00-23 and mm: is from 00-59. An indicator "am" (before noon) and "pm" (afternoon) appears in the setting "012 (AM/PM)". A 12-hour display appears in the setting "011" (AM/PM), where he: is from 00-11 and mm: is from 00-59. This parameter takes national spellings into account	
Display mode date	DD-MM-YY YY-MM-DD MM-DD-YY
This parameter defines the date display format. This display appears in the setting "DD-MM-YY": DD: day of the month 0131, MM: month 0112 and year. The other selections are similar. This parameter takes into account national spellings.	
Automatic switch between daylight saving time	no yes
With the setting "yes", there is an automatic summer and winter time changeover according to the following parameters - "Change to summer time begins on", "in month" and "Summer time ends on", "in month". If the setting is "no", there is no summer or winter time changeover.	

decremented around the set interval, is sent.

Engineering Manual

 $\ensuremath{\textcircled{}}$ Siemens AG 2013 We reserve the right to make changes without notice

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting	
Daylight saving time	first Sunday	
begins at	second Sunday	
	third Sunday	
	next to last Sunday	
	last Sunday	
This parameter sets the day winter to summer time.	for the changeover from	
In month	February	
	March	
	April	
This parameter refers to the parameter above - "Change to summertime begins on". It sets the month for the changeover from winter to summer time.		
Daylight saving time first Sunday		
ends at	second Sunday	
	third Sunday	
	next ti last Sunday	
	last Sunday	
This parameter sets the day for the changeover from summer to winter time.		
In month	September	
	October	
	November	
This parameter refers to the parameter above -		
"Summertime ends on". It sets the month for the		
changeover from summertime to winter time.		

9.1.3 Handling

Parameter	Setting	
Audio feedback when	no	
button pressed	yes	
Use this parameter to set whether pressing the touch- sensitive button to trigger commands and features is to be clarified by an audio feedback, a short beep.		
Status/orientation LED	Off	
(green)	On	
	Status object (normal)	
	Status object (inverted)	
	Operation feedback	

Parameter	Setting
This parameter sets the LED orientation lighting. The LEI orientation light.	pattern (see Figure 1) as D is green when used as an
With the setting "On" the LE No communication object is	D glows green all the time. available for setting via the
With the setting "Off" the LE communication object is available.	D is always off. No ailable for setting via the
With the setting "Status object can so bus with the value = 1 and so 0.	ect (normal)", a switch the LED on via the switch it off with the value =
With the setting "Status object can show the value = 0 and show the value = 0 and show the value = 0.	ect (inverted)", a switch the LED on via the switch it off with the value =
The "Press button" setting al time the touch-sensitive but same with any touch-sensiti	lways lights the LED for the tton is pressed. This is the ive button.
Administrator mode	always on
	selectable at the device
	after enable via object, selectable at device
This parameter activates ad	ministrator mode.
The setting "always" means switched on permanently. N shown to release the local s	administrator mode is lo communication object is etting. Local setting is not
With the "variable locally" se can be switched on and off Section 7.8). No communica release the local setting	etting, administrator mode via the system settings (see ation object is shown to
With the "Variable locally an communication object" sett	d after release via ing, administrator mode
can be switched on and off been released beforehand v (value=1). With the (value=) object the administrator mo	(see Section 7.8) If this has ia a communication object 0) in the communication de is guit simultaneously.
Abandon administrator	1 minute
mode after	2 minutes
	5 minutes
	10 minutes
	20 minutes
	never

97010, 102 pages
ParameterSettingThis parameter sets automatic disconnection of
administrator mode. The setting "never" means
administrator mode is switched on permanently.This parameter appears only if administrator mode
locally is adjustable on site and after release via a
communication object.

9.1.4 Temperature

Parameter	Setting	
Display temperature in	Degree Celsius	
	Degree Fahrenheit	
This parameter sets the system of units (°C or °F) in which temperatures are to be displayed or preset.		

9.1.5 Communication objects in general

Obj	Object name	Function	Туре	Flag	
1	Time	Indication	3 bytes	KSÜA	
The obje	The current time value is received and/or sent to this object via the group address.				
Obj	Object name	Function	Туре	Flag	
Obj 2	Object name Date	Function Indication	Type 3 bytes	Flag KSÜA	

Obj	Object name	Function	Туре	Flag	
3	Time & date	Indication	8 bytes	KSÜA	
The sent	current time an to this object via	nd date values and the group addres	re receivec ss.	l and/or	
Obj	Object name	Function	Туре	Flag	
8	Admin mode	block/release	1 bit	KSÜA	
Loca relea This beer obje	Local activation of administrator mode with value = 1 is released via this object's group address. This object is displayed only if administrator mode has been configured as "Variable locally and after release via object".				
Obj	Object name	Function	Туре	Flag	
9	LED orientation	On/Off	1 bit	KSÜA	
The via t "On" orier indic	The LED can be switched on or off as orientation lighting via this object's group address. If you select the settings "On" or "Off" or "Press button" in the "Status/LED orientation (green)" parameter window, this object is not indicated.				
Obj	Object name Function Type Flag				
10	Temperature display	Celsius (0)/Fahrenheit (1)	1 bit	KSÜA	
The group address for this object controls the temperature display. If the value "0" is received via this object, the temperature is shown in °C. If the value "1" is received via this object, the temperature is shown in °F.					

97010, 102 Seiten

April 2013

07B0 CO Room Control Unit 970101

9.2 Parameter display

General Display	Operator language 1 (code page)	Deutsch (cp 1252)
Behaviour after bus voltage recovery Info area (Line 1)	Operator language 2 (code page)	English (cp 1252)
1st. function 2nd. function 3rd. function	Operator language 3 (code page)	Français (cp 1252)
4th. function 5th. function	Display brightness at rest	display dark 🔹
6th. function 7th. function	Display mode at rest	last page used 🔹
8th. function Alarm - General Controller - General		
Operating mode, controller Operating mode, room		
Frost/heat alarm Temperature, actual value		
Temperature, setpoint values Heating, PI-control		
Heating, valve Cooling, PI-control Cooling, valve		

97010, 102 pages

SIEMENS

07B0 CO Room Control Unit 970101

Parameter	Settings
Operator language 1	Danish (cp 1252)
(code page)	German (cp 1252)
	English (cp 1252)
	Finnish (cp 1252)
	French (cp 1252)
	Italian (cp 1252)
	Croatian (cp 1252)
	Dutch (cp 1252)
	Norwegian (cp1252)
	Polish (cp 1252)
	Portuguese (cp 1252)
	Romanian (cp 1252)
	Swedish (cp 1252)
	Spanish (cp 1252)
	Czech (cp 1252)
	Turkish (cp1252)
	Hungarian (cp 1252)
	Arabic (cp1256)
This parameter selects c	ontrol language 1. All
descriptions of the display fea	atures, as well as alarm and
in the corresponding cha	are shown in this language,
descriptions and texts mu	st be configured in this
language. The current contro	l language can be changed
on the room controller via	the system settings (see
Section 7.6). A selection from	ι three control languages is
possible. The control lan	guage can be changed
simultaneously via three 1-bit	communication objects.

Parameter	Settings
Operator language 2	Danish (cp 1252)
(code page)	German (cp 1252)
	English (cp 1252)
	Finnish (cp 1252)
	French (cp 1252)
	Italian (cp 1252)
	Croatian (cp 1252)
	Dutch (cp 1252)
	Norwegian (cp1252)
	Polish (cp 1252)
	Portuguese (cp 1252)
	Romanian (cp 1252)
	Swedish (cp 1252)
	Spanish (cp 1252)
	Czech (cp 1252)
	Turkish (cp1252)
	Hungarian (cp 1252)
	Arabic (cp1256)
This parameter selects	control language 2. All
descriptions of the display fe	atures, as well as alarm and
text messages on the display	are shown in this language,
in the corresponding cha	aracter set for this. All
language The current control	ist be configured in this
on the room controller via	the system settings (see
Section 7.6). A selection from	n three control languages is
possible. The control lar	iguage can be changed
simultaneously via three 1-bi	t communication objects.

97010, 102 pages

Update: http://www.siemens.de/gamma

3.2.1.9.1/39

April 2013

07B0 CO Room Control Unit 970101

Parameter	Settings	Pa	rameter	Settings		
Operator language 3	Danish (cp 1252)	Dis	play mode at res	t Switchin	g	
(code page)	German (cp 1252)			Dimming	Ĵ	
	English (cp 1252)			Roller sh	utter	
	Finnish (cp 1252)			Sun blin	t	
	French (cp 1252)			Scene co	ontrol	
	Italian (cp 1252)			Send val	ue	
	(cp 1252)			Display v	alue	
	Dutch (cn 1252)			Display t	ext	
	Norwegian (cp1252)			RTR (set)	point	
	Polish (cp 1252)			tempera	ture)	(da)
	Portuguese (cp 1252)			RTR (OPE	fationg mo	ue)
	Pomanian (cp 1252)			nin (coll	tion)	
	(cp 1252)			BTR (fan	sneed sten	c)
	Swedish (cp 1252)			last pag	e used	3)
	(cp 1252)	Thi	s parameter conti	rols the display in s	standby mo	nde (see
	$C_{2}ecn (cp 1252)$	Sec	tion 7.3).	ois the display in .		
	Turkisii (cp1252)	WH	en setting "Last	used page", the f	eature whi	ich was
	Hunganan (cp 1252)	use	ed before entering	standby mode is	shown.	
		Ot	nerwise, a selecte	ed feature is show	n permane	entlv in
Inis parameter selects of	control language 3. All	sta	ndby mode.			5
text messages on the display le	acures, as well as diarrin and					
in the corresponding ch	aracter set for this All		9.2.1 Commu	nication objects d	splay	
descriptions and texts mu	ist be configured in this			2		
language. The current contro	ol language can be changed	O	oj Object name	Function	Туре	Flag
on the room controller via	a the system settings (see	4	Control	activate (1)	1 bit	KSA
Section 7.6). A selection fror	n three control languages is		language 1			1071
possible. The control lar	nguage can be changed	TŁ	e aroun address	for this object c	hanges the	e contro
simultaneously via three 1-bi	t communication objects.	la	nguage via the b	us If the value 1	is received	l via thi
Display brightness at rest	Display dark	ot	piect, the currently	/ set control langu	age 1 is set	
	Display brightness 10%	5	Control	activate (1)	1 hit	KSA
	Display brightness 20%	5	language 2		1 DIL	K3/
	Display brightness 30%	ти		for this object of	hanges the	
This parameter sets whethe	er the display is completely	11	ne group address	us of the value 1	is received	t via thi
darkened in standby mode o	r whether either a last used	oł	viect the currently	us. If the value i / set control langu	ane 2 is set	
page or a special function	n with 10%, 20% or 30%	6	Control	estivata (1)	1 h:+	
dimmed lighting is to be show	wn (see Section 7.1).	6	Control	activate (T)	I DIT	KSA
			language 5			
			e group address	for this object c	hanges the	e contro
		la	nguage via the b	us. If the value 1	IS received	i via thi
		O	ject, the currently	/ set control langu	age 3 is set	
		7	Active system	send	2 bytes	ΚÜ
			language			
		Tł	e group address	s for this object	sends the	e syster
		la	nguage set curre	ntly (see Section	7.7) to th	he roon
			5 5	J (*	, -	
		cc	ntroller as ASCII c	ode (e.g. DE = Ger	many) via t	the bus.

97010, 102 pages

language

Obj	Object name	Function	Туре	Flag
The	group address	for this object	sends the	control
lang	uage set currer	ntly (see Section	7.6) to th	ne room
cont	controller as ASCII code (e.g. DE = Germany) via the bus.			

9.3 Parameter behaviour after bus voltage recovery

General	Delay until reading of objects	
Display	belay undireduing of objects	10 seconds
Behaviour after bus voltage recovery	Read status objects via bus	no
Info area (Line 1)	-	
1st. function	Read blocking objects via bus	no
2nd. function		
3rd. function	Read status objects of -send variable value- via bus	no
4th. function		
5th. function	Alarm active after (time after reading of objects)	1 minute 🔹
6th. function	(unite after reading of objects)	
7th. function	Send all status objects of RTC after	inactive •
8th. function	(time after reading of objects)	
Alarm - General	Room mode after bus voltage recovery	as before bus voltage failure 🔹
Controller - General		
Operating mode, controller	ext. inside temperature on restart	22 °C / 71.6 F
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Townships, astroight allow		
i emperature, setpoint values		
Heating, PI-control		
Heating, PI-control Heating, valve		
Heating, PI-control Heating, valve Cooling, PI-control		

Parameter	Setting
Delay until reading of	10 seconds
objects	20 seconds
	30 seconds
	1 minute
	2 minutes
	3 minutes
	4 minutes
	5 minutes

Parameter	Setting
Use this parameter to set the polling begins with a "varecovery. The time missing telegrams counts 100ms.	he delay after which object alue read" after a power natch among the single
Note: Sometimes, because many this process leads to increa room controllers are used i	objects have to be polled, ased bus loading if several n a KNX system. You wurst
therefore take care to stag there is more than one roon	gger the start of polling if n controller in one bus line!

Parameter	Setting
Read status objects via	no
bus	yes

97010, 102 Seiten

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting	
This parameter setting relates to the preceding parameter "Delay until object polling". This setting determines whether status objects are also to be polled after the set delay.		
Read blocking objects via	no	
bus	yes	
This parameter setting parameter "Delay until ol determines whether block polled after the set delay.	relates to the preceding oject polling". This setting ing objects are also to be	
Read status objects of -	no	
send variable value- via bus	yes	
This parameter setting relates to the preceding parameter "Delay until object polling". This setting determines whether status objects for the feature "Send value variably" are also to be polled after the set delay.		
Alarm active after (time	10 seconds	
after reading of objects)	30 seconds	
	1 minute	
	2 minutes	
	3 minutes	
	4 minutes	
	5 minutes	
	6 minutes	
	10 minutes	
	15 minutes	
	20 minutes	
	25 minutes	
	30 minutes	
This parameter is to be viewed in conjunction with the preceding parameter "Delay until polling objects". Only if the delay until polling objects has elapsed and all relevant object values have been read in does the time set in this parameter start to run. All former alarms up to this point are discarded (see Section 5.3). Alarm monitoring begins after this time, which also has to be set.		

Parameter	Setting	
Send all status objects of room temperature controller after (time after reading of objects)	inactive 5 seconds 10 seconds 20 seconds	
This parameter is to be viewed in conjunction with the preceding parameter "Delay until polling objects". Only if the delay until polling objects has elapsed and a value-read-telegrams to check the device status have been sent does the time set in this parameter start to run. The RTR status objects are sent after this time which also has to be set. No RTR status objects are sen with the setting "inactive"		
Room mode after bus voltage recovery	As before bus voltage failure Comfort mode Pre-comfort mode Economy mode: Protection mode	
This parameter sets the room mode which is activated automatically after power is restored.		
Base setpoint, outside temperature and ext. inside temperature on restart	16°C, 17°C, 18°C, 19°C, 20°C, 21°C, 22°C , 23°C, 24°C, 25°C, 26°C	
This parameter specifies which value must be used as basic nominal value and external measured value for an inside temperature sensor in order that the program has meaningful start values immediately on restart (after download or bus voltage restoration). Any available outside temperature will initially be preset with the same value.		

97010, 102 pages

April 2013

07B0 CO Room Control Unit 970101

9.4 Parameter info area (line 1)

General Display	Buttons of first line act as	single buttons 🔹
Behaviour after bus voltage recovery	Left button	
Info area (Line 1)	Eurotion if button pressed	no function
1st. function		
2nd. function		
3rd. function	Right button	
4th. function	Function if button pressed	no function
5th. function	rancaorni bacon pressea	
6th. function		
7th. function		
8th. function	Display in info area	
Alarm - General		
Controller - General	Display in normal mode	time
Operating mode, controller	If temperature controller	
Operating mode, room	is selected display	
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values	Block buttons via comm. object	no
Heating, PI-control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		

SIEMENS

07B0 CO Room Control Unit 970101

Parameter	Setting
Buttons of first line act	Button pair
as	Single buttons
This parameter sets whether both touch-sensitive buttons in the feature line (see Section 3 for fixed control features) are used as individual buttons, with separate control features for each button, or as a matched pair of buttons for the dimming, shutter and blind features.	

9.4.1 Left button/right button

Parameter	Setting
Function if button	No function
pressed	Switching: On
	Switching: Off
	Switching: toggle
	Press On/Release Off
	Press Off/Release On
	Forced controlled On
	Forced controlled Off
	Forced control inactive (On)
	Forced control inactive
	(Off)
	8-bit scene: recall
	1-bit scene: recall/save
	scene 1
	1-bit scene: recall/save
	scene 2
	Send 8-bit decimal value
	Send 8-bit percent value
	Send temperature value
	Send brightness value
	Send wind speed value
	Send 16-bit value

Parameter Setting Use these parameters to select the feature for the left and right feature buttons. An individual button controls the features (see Section 3). This parameter appears only if the previous parameter "Feature line buttons act as" was set to "Individual buttons". Switch: On Pressing the key sends a "Switch on" command. Switch: Toqqling Pressing the key sends a "Switch off" command. Switch: Toqqling Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). Bell feature: Press = On, Release = Off Pressing the key sends a "Switch off" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (value: 10). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). B-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button.		
Use these parameters to select the feature for the left and right feature buttons. An individual button controls the features (see Section 3). This parameter appears only if the previous parameter "Feature line buttons act as" was set to "Individual buttons". <u>Switch: On</u> Pressing the key sends a "Switch on" command. <u>Switch: Toqqling</u> Pressing the key sends a "Switch off" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a n forced controlled On switching command (value: 11). <u>Forced Controlled OM</u> Pressing the button sends an forced controlled Off switching command (value: 10). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (value: 10). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 01). <u>Borced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Parameter	Setting
and right feature buttons. An individual button controls the features (see Section 3). This parameter appears only if the previous parameter "Feature line buttons act as" was set to "Individual buttons". <u>Switch: On</u> Pressing the key sends a "Switch on" command. <u>Switch: Off</u> Pressing the key sends a "Switch off" command. <u>Switch: Toqqlinq</u> Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch off" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command and releasing it sends a "Switch on" command and releasing it sends a "Switch on" command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (Onf)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Use these parameters to sele	ect the feature for the left
the features (see Section 3). This parameter appears only if the previous parameter "Feature line buttons act as" was set to "Individual buttons". <u>Switch: On</u> Pressing the key sends a "Switch on" command. <u>Switch: Togqling</u> Pressing the key sends a "Switch off" command. <u>Switch: Toqgling</u> Pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled OM</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	and right feature buttons. A	n individual button controls
This parameter appears only if the previous parameter "Feature line buttons act as" was set to "Individual buttons". <u>Switch: On</u> Pressing the key sends a "Switch on" command. <u>Switch: Toggling</u> Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command and releasing it sends a "Switch on" command and releasing it sends a "Switch on" command and releasing it sends a such come command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	the features (see Section 3).	
"Feature line buttons act as" was set to "Individual buttons". <u>Switch: On</u> Pressing the key sends a "Switch on" command. <u>Switch: Togqling</u> Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch off" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	This parameter appears only	if the previous parameter
Switch: On Pressing the key sends a "Switch on" command. Switch: Off Pressing the key sends a "Switch off" command. Switch: Togqling Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). Bell feature: Press = On, Release = Off Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). 3-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. 1-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	"Feature line buttons act as"	was set to "Individual
Switch: On Pressing the key sends a "Switch on" command. Switch: Off Pressing the key sends a "Switch off" command. Switch: Togqling Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). Bell feature: Press = On, Release = Off Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). 3-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. 1-bit scene: Recall/Save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	buttons".	
Pressing the key sends a "Switch on" command. <u>Switch: Off</u> Pressing the key sends a "Switch off" command. <u>Switch: Togqling</u> Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a n forced controlled On switching command (value: 11). <u>Forced Controlled OM</u> Pressing the button sends an forced controlled Onff switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/Save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Switch: On	
Switch: Off Pressing the key sends a "Switch off" command. Switch: Togqling Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). Bell feature: Press = On, Release = Off Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Bell feature: Press = Off, Release = On Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). B-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. 1-bit scene: Recall Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the key sends a "Sw	vitch on command.
Pressing the key sends a "Switch off" command. <u>Switch: Togqling</u> Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>B-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Switch: Off	** I
Switch: Toggling Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). Bell feature: Press = On, Release = Off Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>8-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the key sends a "Sw	vitch off" command.
Pressing the key once sends a "Switch on" command and pressing the key again sends a "Switch off" command. With each additional press, the inverted object value is sent in each case (Change function). Bell feature: Press = On, Release = Off Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). B-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. I-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Switch: loggling	
and pressing the key again sends a "switch off" command. With each additional press, the inverted object value is sent in each case (Change function). <u>Bell feature: Press = On, Release = Off</u> Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the key once sends	a "Switch on" command
Command: with each additional press, the inverted object value is sent in each case (Change function). Bell feature: Press = On, Release = Off Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). B-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. I-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	and pressing the key again s	ends a Switch off
Bell feature: Press = On, Release = Off Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). 8-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. 1-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	object value is sent in each d	case (Change function)
Pressing the key sends a "Switch on" command and releasing it sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>B-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>I-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Boll footure: Press - On Rele	ase = Off
releasing the key sends a "Switch off" command. <u>Bell feature: Press = Off, Release = On</u> Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. <u>Forced Controlled ON</u> Pressing the button sends an forced controlled On switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>B-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>I-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the key sends a '	Switch on" command and
Bell feature: Press = Off, Release = On Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). 3-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. 1-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	releasing it sends a "Switch of	off" command
Pressing the button sends a "Switch off" command and releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). <u>B-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>I-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Bell feature: Press = Off. Rele	Pase = On
releasing it sends a "Switch on" command. Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). <u>B-bit scene: Recall</u> Pressing the button calls up the scene with the set humber (scene 1 scene 64) configured for this button. <u>I-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the button sends a	"Switch off" command and
Forced Controlled ON Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). B-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. I-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	releasing it sends a "Switch o	on" command.
Pressing the button sends an forced controlled On switching command (value: 11). Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). B-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. I-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Forced Controlled ON	
switching command (value: 11). <u>Forced Controlled Off</u> Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the button sends ar	n forced controlled On
Forced Controlled Off Pressing the button sends an forced controlled Off switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). 3-bit scene: Recall Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. 1-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	switching command (value:	11).
Pressing the button sends an forced controlled Off switching command (Value: 10). <u>Forced Control inactive (On)</u> Pressing the button sends a disable Override command (Value: 01). <u>Forced Control inactive (Off)</u> Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Forced Controlled Off	
switching command (Value: 10). Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set humber (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the button sends ar	n forced controlled Off
Forced Control inactive (On) Pressing the button sends a disable Override command (Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	switching command (Value:	10).
Value: 01). Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Forced Control Inactive (On)	disable Override command
Forced Control inactive (Off) Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	(Value: 01)	disable Overnde command
Pressing the button sends a disable Override command (Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Forced Control inactive (Off)	
(Value: 00). <u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the button sends a	disable Override command
<u>3-bit scene: Recall</u> Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. <u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	(Value: 00).	
Pressing the button calls up the scene with the set number (scene 1 scene 64) configured for this button. I-bit scene: Recall/save scene 1 Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	8-bit scene: Recall	
number (scene 1 scene 64) configured for this button. <u>I-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the button calls up t	the scene with the set
<u>1-bit scene: Recall/save scene 1</u> Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	number (scene 1 scene 64) configured for this button.
Pressing the button calls up "Scene 1" via the corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	1-bit scene: Recall/save scene	e 1
corresponding object. Pressing the button saves "Scene 1" via the corresponding object. This selection is dependent on the object assignment!	Pressing the button calls up "S	icene 1" via the
via the corresponding object. This selection is dependent on the object assignment!	corresponding object. Pressir	ng the button saves "Scene 1"
on the object assignment!	via the corresponding object.	This selection is dependent
	on the object assignment!	

97010, 102 pages

Update: http://www.siemens.de/gamma

1-bit scene: Recall/save scene 2		
Pressing the button calls up "Scene 2" via the		
corresponding object. Pressing the button saves "Scene 2"		
via the corresponding object. This selection is dependent		
on the object assignment!		
Send 8-bit decimal value		
Pressing the button sends a decimal value (0255) to		
be set.		
Send 8-bit percentage value		
Pressing the button sends a decimal value (0100%) to		
be set.		
Send temperature value		
Pressing the button sends a temperature value in		
floating point format (-3048°C) to be set.		
Send brightness value		
Pressing the button sends a brightness value in floating		
point format (0100000 lux) to be set.		
Send wind speed value		
Pressing the button sends a wind speed in floating		
point format (035 m/s) to be set.		
Send 16-bit value		
Describes the hosten and a 10 hit value in sometry		

Pressing the button sends a 16-bit value in counter format (0...65535) to be set.

Parameter	Setting	
Scene number	1 64	
This parameter selects the scene number to be sent. This parameter appears only if the feature: "Call up 8- bit scene" is selected.		

Parameter	Setting	
8-bit value	0 255	
This parameter selects the decimal value to be sent. This parameter appears only if the feature: "Send 8-bit decimal value" is selected.		

Parameter	Setting	
percent value	0 100 %	
This parameter selects the percentage value to be sent which is then converted to 0255.		
This parameter appears only if the feature: "Send 8-bit percentage value" is selected.		

Parameter	Setting
Temperature value	-30°C 20°C 48°C

Parameter Setting

This parameter selects the temperature value to be sent. This parameter appears only if the feature: "Send temperature value" is selected.

Parameter	Setting
Brightness value	0 lux 500 lux 100000 lux
This parameter selects the brightness value to be sent.	

This parameter appears only if the feature: "Send brightness value" is selected.

Parameter	Setting	
Wind speed	0 m/s 3 m/s 35 m/s	
This parameter selects the wind speed value to be sent.		
This parameter appears only if the feature: "Send wind		
speed value" is selected.		

Parameter	Setting	
16-bit value	065535	
This parameter selects the 16-bit counter value to be		

This parameter selects the 16-bit counter value to be sent. This parameter appears only if the feature: "Send 16-bit

This parameter appears only if the feature: "Send 16-bit value" is selected.

Parameter	Setting	
Send second telegram	no	
	yes	
This parameter specifies whether a further telegram is to be sent via an additional object. Yes: Another telegram is sent		
No: No further telegram is sent This additional parameter is not available for t individual features: Press On/Release Off and Pro Off/Release On		
Send second telegram	after delay (always) if button held down (alternatively)	

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Paramotor	Satting		
f the "After delay (always)" setting is selected via this			
If the After delay (always) setting is selected via this			
parameter, the following further parameter Transmit			
delay for the second telegram appears.			
selected via this parameter	If the "Hold button down (alternatively)" setting is		
parameter "Starting with bu	tton held down" appears		
Always one telegram is sent	dependent on pressing		
button or holding it down.	,		
This parameter appears only	/ if the "Send second		
telegram" parameter is set t	o "Yes".		
Transmit delay for the	0 255		
second telegram			
(seconds)			
After releasing the button,	the delay (0255 seconds)		
begins, at the end of which a second telegram is sent			
via a further object. If the button is pressed again			
before the delay ends, this restarts.			
The "Second telegram feature" parameter and any			
other parameters configure	the second telegram.		
This parameter appears of	only if the "Send second		
telegram" parameter is set t	o "Yes" and with the setting		
"after delay (always)".			
Long push of button after	0.5 seconds		
	0.6 seconds		
	0.8 seconds		
	1.0 seconds		
	1.2 seconds		
	1.5 seconds		
2.0 seconds			
This parameter determines how long at least the			
button must be pressed to send the alternative			
telegram via a second object.			
The "Second telegram feature" parameter and any			
other parameters configure the alternative telegram.			
This parameter appears only if the "Send second			
telegram" parameter is set to "Yes" and with the setting			
IT putton held down (altern	atively).		

Parameter	Setting		
Second telegram feature	Switch: On		
	Switch: Off		
	Forced controlled On		
	Forced controlled Off		
	Forced control inactive (On)		
	Forced control inactive (Off)		
	8-bit scene: recall		
	1-bit scene: Recall/save scene		
	1		
	1-bit scene: Recall/save scene 2		
	Send 8-bit percentage value		
	Send 8-bit decimal value		
	Send temperature value		
	Send brightness value		
	Send wind speed value		
	Send 16-bit value		
Use these parameters to select the second telegram feature for the left and right feature buttons (see			

97010, 102 pages

April 2013

07B0 CO Room Control Unit 970101

9.4.2 Button pair functions:

General	Puttone of first line act as	
Display	buttons of first line act as	button pair 🔹
Behaviour after bus voltage recovery	Function for button pair	dimming, On / Off
Info area (Line 1)		
1st. function	Swap keys	no 🔻
2nd. function		
3rd. function	Button function	left Off, darker / right On, brighter
4th. function		
5th. function		
6th. function	Display in info area	
7th. function		
8th. function	Display in normal mode	time
Alarm - General	If temperature controller	indeer temperature
Alarm 1	is selected display	
Controller - General		
Operating mode, controller	Black buttons of annual ability	
Operating mode, room	Block buttons via comm. object	no
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, PI-control		
Heating, valve		
Cooling, 2 level control		
Cooling, valve		
Fan		

Parameter	Setting
Function for button pair	Dimming, On/Off
	Roller shutters
	Sun blind

Parameter	Setting		
This parameter sets the button pair feature. Depending on the parameter setting, the parameter window changes and the associated parameters are indicated in standard settings (see Section 3.2).			
This parameter appears only if the previous parameter "Feature line buttons act as" was set to "Button pair".			
Dimming On/Off			
Switching, dimming: Off, dar	ker/On, brighter		
Tap left button: Switching col	nmand Off ommand "On"		
Hold down left button: "Dimming command "darker"			
Hold down right button: Dimming command "Brighter"			
<u>Shutters</u>			
Hold down left: Shutters "dov	vn"		
Hold down right button: Shut	ters "up"		
Tap left: Shutters "stop"			
<u>Dilliu</u> Hold down loft: Plind "down"			
Hold down right button: Blind	d "up"		
Tap left: Blind "stop", slats "do	wn"		
Tap right: Blind "stop", slats "u	ıp"		

97010, 102 Seiten

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting	
Swap keys	no	
	yes	
This parameter changes the button pair operating strategy from left/right to right/left.		
This parameter is available for all three features: Dimming on/off, shutters, blind.		

9.4.3 Display in info area

Parameter	Setting		
Display in normal mode	Date		
	Time		
	Outside temperature		
	Inside temperature		
The information set here is shown in the center of the info			
line on the user and display pages.			

Available for selection are the current date, current time, outside temperature and current inside temperature (see Section 2).

Parameter	Setting	
If temperature controller is selected display	Indoor temperature Operating mode RTC Heat/cool mode Fan speed Window open/closed Dew point	
The information set here is shown in the center of the info line on the room temperature controller pages. Available for selection are the current inside temperature, current mode (automatic, comfort, pre-comfort, Economy mode, protection mode), heating and cooling modes, current fan speed, open or closed windows or dewpoint mode (see Section 2).		
Block buttons via comm. object	no yes, if blocking object = 0 yes, if blocking object = 1 block always	
This parameter determines whether and under what conditions button operation is to be blocked via the blocking object. This blocking feature acts both in the "Individual buttons" setting and in the "Button pair"		

9.4.4 Communication objects for features in the feature line (individual button features)

14Info line left, switchingOn/Off/toggle1 bitKÜ17Info line right, switchingOn/Off/toggle1 bitKÜ	Т	Feature	oj Object name	Obj
17 Info line right, On/Off/toggle 1 bit KÜ	toggle 1	On/Off/togg	Info line left, switching	14
Switching	toggle 1	On/Off/togg	Info line right, switching	17

If either the left or right button is pressed, an "ON" or "OFF" switching telegram is sent via the corresponding object.

With the Change switching feature, an "On" switching telegram is sent via the corresponding object and an "Off" switching telegram is sent the next time it is pressed. With each additional press, the inverted object value is sent in each case (Toggle feature).

With the feature Press = On/release = Off, when the button is pressed, an "On" switching telegram is sent via the corresponding object and on releasing the button an "Off" telegram is sent.

With the feature Press = Off/release = On, when the button is pressed, an "Off" switching telegram is sent via the corresponding object and on releasing the button an "On" telegram is sent.

Obj	Object name	Feature	Туре	Flag
14	Info line left, forced control	On/OFF/inactive (On)/inactive (Off)	2 bit	KÜ
17	Info line right, forced control	On/OFF/inactive (On)/inactive (Off)	2 bit	KÜ

Tapping the left or right button sends a telegram "Override On" (binary value = 11) via the corresponding 2-bit override object and tapping the right button sends "Override Off" (binary value = 10).

Holding down the right button disables the override with the binary value "01" and holding down the left button disables the override with the binary value "00".

Tapping a button produces an Enable command and holding the button down a Disable command for override.

Engineering Manual

setting.

Obj	Object name	Feature	Туре	Flag
14	Info line left,	recall/store	1 byte	КÜ
	scene			
17	Info line right,	recall/store	1 byte	KÜ
	scene			
5			01.1	

Pressing the left or right button sends an 8-bit scene with the set scene number via the corresponding object. The scene numbers (1...64) are stored in bits 0 to 5 of the 8-bit object (1 to 64). The highest value bit 7 determines that the scene is recalled (bit = 0)

that the	scene is red	called (bit = (J).

Obj	Object name	Feature	Туре	Flag
14	Info line left, scene 1/2	recall/store	1 bit	KÜ
17	Info line right, scene 1/2	recall/store	1 bit	KÜ

Pressing the left or right button sends a 1-bit scene with the scene number 1 or 2 via the corresponding object. Scene 1 is recalled with a "0" telegram and scene 2 with a "1" telegram.

The relevant 1-bit object can also be used to program scene 1 or 2.

Scene 1 is saved with a "0" telegram and scene 2 with a "1" telegram.

Obj	Object name	Feature	Туре	Flag	
14	Info line left, 8- bit Bit	Value	1 byte	KÜ	
17	Info line right, 8-Bit	Value	1 byte	KÜ	
Pressing the left or right button sends a fixed, set, configured decimal value between 0 and 255 via the corresponding object.					

Obj	Object name	Feature	Туре	Flag	
14	Info line left, percentage	Value	1 byte	КÜ	
17	Info line right, percentage	Value	1 byte	KÜ	
Pressing the left or right button sends a fixed, set, configured percentage between 0 and 100% via the corresponding object.					

Obj	Object name	Feature	Туре	Flag	
14	Info line left,	Value	2 bytes	KÜ	
	temperature				
17	Info line right,	Value	2 bytes	KÜ	
	temperature				
Press	Pressing the left or right button sends a fixed, set, configured temperature between -30 °C and +48°C in				

floating point format via the corresponding object.

Obj	Object name	Feature	Туре	Flag	
14	Info line left, brightness	Value	2 bytes	КÜ	
17	Info line right, brightness	Value	2 bytes	KÜ	
Pressing the left or right button sends a fixed, set, configured brightness value between 0 and 100,000 lux in floating point format via the corresponding object.					

Obj	Object name	Feature	Туре	Flag
14	Info line left, wind speed	Value	2 bytes	KÜ
17	Info line right, wind speed	Value	2 bytes	KÜ
Pressing the left or right button sends a fixed, set, configured wind speed between 0 and 35 m/s in floating				

point format via the corresponding object.

Obj	Object name	Feature	Туре	Flag		
14	Info line left, 16-bit	Value	2 bytes	КÜ		
17	Info line right, 16-bit	Value	2 bytes	КÜ		
Press conf	Pressing the left or right button sends a fixed, set, configured 16-bit value between 0 and 65535 via the corresponding object.					

9.4.5 Communication objects for features in the feature line (individual button feature) - "second telegram"

Obj	Object name	Feature	Туре	Flag
15	Info line left 2, switching	On/Off	1 bit	KÜ
18	Info line right 2, switching	On/Off	1 bit	KÜ
15	Info line left 2, forced control	On/Off inactive (On)/inactive (Off)	2 bit	KÜ

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

Obj	Object name	Feature	Туре	Flag
18	Info line right 2, forced control	On/Off inactive (On)/inactive (Off)	2 bit	КÜ
15	Info line left 2, scene	recall/store	1 byte	КÜ
18	Info line right 2, scene	recall/store	1 byte	КÜ
15	Info line left 2, scene 1/2	recall/store	1 bit	КÜ
18	Info line right 2, scene 1/2	recall/store	1 bit	КÜ
15	Info line left 2, 8-bit	Value	1 byte	КÜ
18	Info line right 2, 8-bit	Value	1 byte	КÜ
15	Info line left 2, percentage	Value	1 byte	КÜ
18	Info line right 2, percentage	Value	1 byte	КÜ
15	Info line left 2, temperature	Value	2 bytes	KÜ
18	Info line right 2, temperature	Value	2 bytes	КÜ
15	Info line left 2, brightness	Value	2 bytes	КÜ
18	Info line right 2, brightness	Value	2 bytes	КÜ
15	Info line left 2, wind speed	Value	2 bytes	КÜ
18	Info line right 2, wind speed	Value	2 bytes	KÜ
15	Info line left 2, 16-bit	Value	2 bytes	КÜ
18	Info line right 2, 16-bit	Value	2 bytes	ΚÜ
Hold sence corre	ling down the lef ls a second or esponding second	t or right buttor ^r alternative t object.	n, or after elegram	a delay, via the

9.4.6 Communication objects for features in feature line (button pair features)

Obj	Object name	Feature	Туре	Flag
14	Info line, dimming	On/Off	1 bit	KÜ
15	Info line, dimming	brighter/darker	4 bit	KÜ
dimmingTapping the buttons sends an "On" or "Off" switching telegram and holding then down sends a "brighter" or "darker" dimming telegram, in each case via the corresponding object.Tapping a button produces a Switch on command and holding the button down a Dimming command for the lighting.				
Obi	Object name	Feature	Type	Flag

Obj	Object name	Feature	Туре	Flag	
14	Info line, roller	stop	1 bit	KÜ	
	stop				
15	Info line, roller	up/down	1 bit	KÜ	
	shutter				
If the	If the buttons are held down, a shutter movement				
com	command "Up" or "Down" is sent via the corresponding				
object and if they are tapped a "Stop" command is sent.					
Holding the button down generates a command to move					
the shutter and tapping it a command to stop the trip.					

Obj	Object name	Feature	Туре	Flag	
14	Info line, slats	up/down	1 bit	KÜ	
15	Info line, shutter	up/down	1 bit	КÜ	
If the mov corre Up" o Hold the s	If the buttons are held down, a solar protection movement command "Up" or "Down" is sent via the corresponding object and if they are tapped a "Stop/Slat Up" or "Stop/Slat Down" command is sent. Holding down the button produces a command to move the solar protection and tapping a command to stop the				

Engineering Manual

Update: http://www.siemens.de/gamma

9.5 Parameter display features

8 display features can be set via the following parameters:

General	And foundame	
Display	1st. function	switching
Behaviour after bus voltage recovery	Button function	switching Off / On
Info area (Line 1)		switching Off / On
1st. function		switching toggle / toggle
2nd. function	Line 2	bell function: press On / release Off bell function: press Off / release On
3rd. function	Text language 1	Text 1
4th. function		
5th. function	Text language 2	Text 2
6th. function	Text language 3	Text 3
7th. function		
8th. function		
Alarm - General	Line 3	
Controller - General	Symbol	1 <-> 0
Operating mode, controller		
Operating mode, room	line 4	
Frost/heat alarm	Line 4	
Temperature, actual value	Symbol	lamp 🔻
Temperature, setpoint values		
Heating, PI-control		
Heating, valve	Block function via comm. object	no 🔻
Cooling, PI-control		
Cooling, valve		

Parameter	Setting
1st. function	No function
	Switching
	Switching, dimming
	Switching with force control
	Sun protection
	Roller shutter
	8-bit scene recall / save
	1-bit scene recall / save
	Send fixed values
	Send variable values
	Display value
	Display text
This parameter selects the feature. The setting "N	
used" means that no f	urther parameter settings and
objects are displayed for	r this feature.

Switching:

Parameter	Setting
Button function	Switching Off/On
	Switching Toggle/Toggle
	Bell function: Press On/Release
	Off
	Bell function: Press Off/Release
	On

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Parameter

Parameter	Setting			
An individual button co	ntrols this feature (see Section			
4.1).				
Switch: Off / On				
Use the button (G`) to s	end the "On" switching			
command.	Ĵ			
Use the button (G) to se	nd the "Off" switching			
command.	5			
Switch: Toggling				
Pressing the button (G o	or G') once sends a "Switch on"			
command and pressing	the button again sends a			
"Switch off" command. \	Nith each additional press, the			
inverted object value is s	sent in each case (Change			
feature).	-			
Bell feature: Press = On,	Release = Off			
Pressing the button (G o	or G') once sends a "Switch on"			
command and releasing	the button sends a "Switch off"			
command.				
Bell feature: Press = Off,	Release = On			
Pressing the button (0	G or G') sends a "Switch on"			
command and releasing	the button sends a "Switch off"			
command.				
Text language 1				
Use this entry field to en	nter an 11-character descriptive			
text for the switching feature. This descriptive text is				
shown on the display in the second line (C). The				
entered text corresponds to control language 1. The				
control language is set directly via the system settings				
or via a communication	object (see Section 7.6).			
Text language 2				
Use this entry field to er	nter an 11-character descriptive			
text for the switching f	feature. This descriptive text is			
shown on the display in the second line (C). The				
entered text corresponds to control language 2. The				
control language is set directly via the system settings				
or via a communication object (see Section 7.6).				
Text language 3				
Use this entry field to enter an 11-character descriptive				
text for the switching feature. This descriptive text is				
shown on the display in the second line (C). The				
entered text corresponds to control language 3. The				
control language is set directly via the system settings				
or via a communication object (see Section 7.6).				
Symbol	1 <- > 0			
The status of the switching feature is shown on the				
display in the third line (C`) with the value "1" or "0".				
This is an information bit.				

Parameter	Setting	
Symbol	Lamp	
-	1/0	
	Contact	
	Socket	
display. The features group is shown on the display in the fourth line (K). These are the symbols for the features group "Switch, switch with override" (see Section 4).		
Block function via com object	 no yes, if blocking object = 0 yes, if blocking object = 1 block always 	
This parameter determines whether and under what condition the display feature operation is to be blocked via the blocking object when the button is pressed.		

Switching, dimming:

Parameter	Setting	
Button function	Left Off, darker/right On, brighter	
The control strategy is s is an information bit.	et firmly (see Section 4.2). This	
Text language 1		
Use this entry field to enter an 11-character descript text for the switching, dimming feature. T descriptive text is shown on the display in the seco line (C). The entered text corresponds to cont language 1. The control language is set directly via t system settings or via a communication object(s Section 7.6).		
Text language 2		
Use this entry field to enter an 11-character descriptive text for the switching, dimming feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 2. The control language is set directly via the system settings or via a communication object (see Section 7.6).		
Text language 3		

Engineering Manual

Parameter Se	Setting		
Use this entry field to enter an 11-character descriptive text for the switching, dimming feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 3. The control language is set directly via the system settings or via a communication object (see Section 7.6).			
Symbol Value (%)			
The dimming value status is shown on the display in the third line (C`) with a percentage between 0 and 100%. This is an information bit.			
Symbol Lamp 50%			
A corresponding dimming symbol is shown for the "Switching, dimming" features group (see Section 4). The features group is shown on the display in the fourth line (K). This is an information bit.			
fourth line (K). This is an inf	own on the display in the ormation bit.		
fourth line (K). This is an inf Block function via comm.	own on the display in the ormation bit. no		
fourth line (K). This is an inf Block function via comm. object	wn on the display in the ormation bit. no yes, if blocking object = 0 yes, if blocking object = 1 block always		

Switching with force control:

Parameter	Setting	
Button function	Left forced Off/right forced On	
The control strategy is s is an information bit.	et firmly (see Section 4.3). This	
Text language 1		
Use this entry field to enter an 11-character descriptive text for the switching with override feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 1. The control language is set directly via the system settings or via a communication object (see Section 7.6).		
Text language 2		
Use this entry field to enter an 11-character descriptive text for the switching with override feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 2. The control language is set directly via the system settings or via a communication object (see Section 7.6).		

Se	tting		
Text language 3			
Use this entry field to enter an 11-character descriptive text for the switching with override feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 3. The control language is set directly via the system settings or via a communication object (see Section 7.6).			
Loc	king unit		
The override status is shown on the display in the third line (C`). If a lock is open, override is inactive. If a lock is closed, override is active. This is an information bit.			
Lar	amp		
1/0			
Cor	Contact		
Socket			
This parameter selects a symbol for the features group display. The features group is shown on the display in the fourth line (K). These are the symbols for the features group "Switch, switch with override" (see Section 4).			
Block function via comm.			
	yes, if blocking object = 0		
	yes, if blocking object = 1 block always		
This parameter determines whether and under what condition the display feature operation is to be blocked via the blocking object when the button is pressed			
	Se inter with one land owi inter land owi inter land owi inter inter land owi inter inter inter land owi inter inter land owi inter inter land owi inter in		

Sun protection:

Parameter	Setting	
Button function	Left Down/right Up	
The control strategy is set firmly (see Section 4.5). This is an information bit.		
Text language 1		
Use this entry field to enter an 11-character descriptive text for the blind feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 1. The control language is set directly via the system settings or via a communication object (see Section 7.6).		

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting	Parameter	Setting
Text language 2		Text language 2	
Use this entry field to en text for the blind feature on the display in the sec corresponds to contro language is set directly v communication object (se	ter an 11-character descriptive . This descriptive text is shown cond line (C). The entered text I language 2. The control ria the system settings or via a see Section 7.6).	Use this entry field to e text for the shutter f shown on the display entered text correspor control language is set or via a communication	enter an 11-character descriptive eature. This descriptive text y in the second line (C). The nds to control language 2. The directly via the system setting object (see Section 7.6).
Text language 3		Text language 3	
Use this entry field to en text for the blind feature on the display in the sec corresponds to contro language is set directly v communication object (se	ter an 11-character descriptive . This descriptive text is shown cond line (C). The entered text I language 3. The control ria the system settings or via a see Section 7.6).	Use this entry field to e text for the shutter f shown on the display entered text correspor control language is set or via a communication	enter an 11-character descriptive eature. This descriptive text y in the second line (C). The nds to control language 3. The directly via the system setting object (see Section 7.6).
Symbol	Value (%)	Symbol	Value (%)
The hanging height stat the third line (C`) with 100%. If the value is "0% "100%", the blind is down	us is shown on the display in a percentage between 0 and ", the blind is up. If the value is n. This is an information bit. Shutter	The hanging height st the third line (C`) wit 100%. If the value is "O is "100%", the shutter bit.	atus is shown on the display i h a percentage between 0 an %", the shutter is up. If the valu is down. This is an informatio
A corresponding blind sy	mbol is shown for the "Blind"	Symbol	Roller shutter
features group (see Sec shown on the display in information bit.	tion 4). The features group is the fourth line (K). This is an	A corresponding shut "Shutter" features grou group is shown on the This is an information b	ter symbol is shown for th p (see Section 4). The feature e display in the fourth line (K pit.
object	yes, if blocking object = 0 yes, if blocking object = 1 block always	Block function via comm. object	no yes, if blocking object = 0 yes, if blocking object = 1
This parameter determin condition the display fea via the blocking object w	es whether and under what ture operation is to be blocked hen the button is pressed.	This parameter determi condition the display fe via the blocking object	nes whether and under what bature operation is to be blocker when the button is pressed.
Roller shutter:			

Parameter	Setting	
Button function	Left Down/right Up	
The control strategy is set firmly (see Section 4.4). This is an information bit.		
Text language 1		
Use this entry field to enter an 11-character descriptive text for the shutter feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 1. The control language is set directly via the system settings or via a communication object (see Section 7.6).		

Engineering Manual

97010, 102 pages

8-bit scene recall / save:

Parameter	Setting	
Scene number	164	
(Output via obj. 100)		
This parameter selects the	scene number to be sent or	
to be programmed.		
This parameter appears	only for the feature:	
"Recall/save 8-bit scene".		
Text language 1		
Use this entry field to enter	an 11-character descriptive	
text for the 8-bit scene fea	ture. This descriptive text is	
snown on the display in	the second line (C). The	
control language is set dire	actly via the system settings	
or via a communication obj	ect (see Section 7.6).	
Text language 2	· · · /	
Use this entry field to enter	r an 11-character descriptive	
text for the 8-bit scene fea	ture. This descriptive text is	
shown on the display in	the second line (C). The	
entered text corresponds	to control language 2. The	
control language is set dire	ectly via the system settings	
or via a communication obj	ect (see Section 7.6).	
Text language 3		
Use this entry field to enter an 11-character descriptive		
text for the 8-bit scene fea	ture. This descriptive text is	
shown on the display in	the second line (C). The	
control language is set dire	to control language 3. The	
or via a communication obj	ect (see Section 7.6).	
Symbol	Presentation	
-,	Meeting	
	Leaf (Eco)	
	Leaving room	
	Universal	
	Party	
	Vacation	
Sleep mode		
This parameter selects a symbol for the called-up scene		
display. This scene symbol is shown on the display in		
the third line (C`) (see Section 4.6).		
Symbol Sce	ene	
A corresponding scene s	symbol is shown for the	
"Scenes" features group (see Section 4). The features		
group is shown on the display in the fourth line (K).		
This is an information bit.		

Parameter	Setting	
Block function via comm. object	no yes, if blocking object = 0 yes, if blocking object = 1 block always	
This parameter determines whether and under what condition the display feature operation is to be blocked via the blocking object when the button is pressed.		
1-bit scene recall / save:		
Parameter Setting		

	g	
Scene number	Scene 1	
	Scene 2	
This parameter selects scene 1 or scene 2 to be sent or programmed.		
"Recall/save 1-bit scene".	only for the reature.	
Text language 1		
Use this entry field to enter an 11-character descriptive text for the 1-bit scene feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 1. The control language is set directly via the system settings or via a communication object (see Section 7.6).		
Text language 2		
Use this entry field to enter an 11-character descriptive text for the 1-bit scene feature. This descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 2. The control language is set directly via the system settings or via a communication object (see Section 7.6).		
shown on the display in entered text corresponds control language is set dire or via a communication obj	the second line (C). The to control language 2. The ectly via the system settings ject (see Section 7.6).	
shown on the display in entered text corresponds control language is set dir or via a communication obj Text language 3	the second line (C). The to control language 2. The ectly via the system settings ject (see Section 7.6).	

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting	
Symbol	Presentation	
	Meeting	
	Leaf (Eco)	
	Leaving room	
	Universal	
	Party	
	Vacation	
	Sleep mode	
This parameter selects a symbol for the called-up scene display. This scene symbol is shown on the display in the third line (C`) (see Sections 4.6 and 4.7).		
Symbol Sce	ene	
A corresponding scene symbol is shown for the "Scenes" features group (see Section 4). The features group is shown on the display in the fourth line (K). This is an information bit.		
Block function via comm.	no	
object	yes, if blocking object = 0	
	yes, if blocking object = 1 block always	
This parameter determines whether and under what condition the display feature operation is to be blocked via the blocking object when the button is pressed.		

Send fixed values

Parameter	Setting	
Data type	8-bit decimal	
	8-bit percent	
	16-bit decimal	
	Temperature	
	Brightness	
	Wind speed	
This parameter selects the data type to be sent and which is to be sent as a firmly configured value.		
This parameter appears only for the feature: "Send fixed/variable values".		
Number of values	1 fixed value	
	2 fixed values	
	3 fixed values	
	4 fixed values	

Up to 4 different values for the same data type cal				
	n ho			
sent via a single communication object. This param	oter			
selects the number of values that are to be sent y	via a			
single communication object.	single communication object			
This parameter appears only for the feature: "S	This parameter appears only for the feature: "Send			
fixed values".				
First value 0255				
0 100 %				
0 65535				
-30°C 10 °C 48°C				
0 Lux 100,000 Lux	0 Lux 100,000 Lux			
0 m/s 1 m/s 35 m/s	0 m/s 1 m/s 35 m/s			
This parameter configures the defined value 1 to be se	nt,			
which is selected with the button (G) in line 3 and sen				
with the right button (G') in line 3.				
This parameter appears only for the feature: "Send				
fixed values".				
Second value 0255				
0100 %				
0 65535	0 65535			
-30°C 20°C 48°C	-30°C 20°C 48°C			
0 lux 100 lux 100000 lux	0 lux 100 lux 100000 lux			
0 m/s 2 m/s 35 m/s	0 m/s 2 m/s 35 m/s			
This parameter configures the defined value 2 to be sent,				
which is selected with the button (G) in line 3 and sent				
with the right button (G') in line 3. This parameter appears only for the feature: "Send				
fixed values"				
Third value 0 255				
0 100 %				
0100 %				
-30°C 30°C 48°C				
0 lux 500 lux 100000 lux				
0 m/s 3 m/s 35 m/s				
This parameter configures the defined value 3 to be sent				
which is selected with the button (G) in line 3 and sent				
with the right button (G') in line 3.				
This parameter appears only for the feature: "Send				
fixed values".				

Parameter Setting		
Fourth value	ourth value 0255	
	0 100 %	
	0 65535	
	-30°C 40 °C 48°C	
	0 lux 1000 lux 100000 lux	
T	0 m/	s 4 m/s 35 m/s
This parameter configur	res the	e defined value 4 to be sent,
which is selected with t	ne bu :') in li	ne 3
This parameter appear	s only	for the feature: "Send
fixed values".	5 0)	
Text language 1		
Use this entry field to	enter	an 11-character descriptive
text for the "Send fixed	d valu	es" feature. This descriptive
text is shown on the d	lisplay	in the second line (C). The
entered text correspo	nds t	o control language 1. The
control language is se	t dire	ctly via the system settings
	n obje	ect (see section 7.8).
Text language 2		
Use this entry field to	enter	an 11-character descriptive
text for the "Send fixed	d valu	in the second line (C). The
entered text correspo	nds t	o control language 2. The
control language is se	t dire	ctlv via the system settings
or via a communicatio	n obje	ect (see Section 7.6).
Text language 3		
Use this entry field to	enter	an 11-character descriptive
text for the "Send fixed	d valu	es" feature. This descriptive
text is shown on the d	lisplay	in the second line (C). The
entered text correspo	nds t	o control language 3. The
control language is set directly via the system settings		
Value [m/s]		
The value to be sent is shown on the display in the		
third line (C`) with the selected data type and the		
corresponding unit.		
This is an information bit.		
Symbol SET		
A corresponding blind	l sym	bol is shown for the "Send
values" features group (see Section 4). The features		
group is shown on the display in the fourth line (K).		
This is an information bit.		

Parameter	Setting
Block function via comm. object	no yes, if blocking object = 0 yes, if blocking object = 1 block always
This parameter determines whether and under what condition the display feature operation is to be blocked via the blocking object when the button is pressed.	

Send variable values

Parameter	Setting
Data type	8-bit decimal
	8-bit percent
	16-bit decimal
	Temperature
	Brightness
	Wind speed
This parameter selects the data type to be sent and which is to be sent as a variable value to be set at the room controller. This parameter appears only for the feature: "Send fixed/variable values".	
Parameter Se	etting
Minimal value 0	255
0.	100 %
0.	32767
-3	80°С 20°С 48°С
0	lux 100 lux 100000 lux
0	m/s 35 m/s
This parameter limits the range of values for the corresponding data type. The lower limit is set. If a threshold is not reached because of the set interval, the object value is restricted to this value. Only values that are within the set value range are sent (see Section 4.9). This parameter appears only for the feature: "Send variable values".	

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting	1 [Parameter	Setting
Maximal value	0255 0100 % 032767 -30°C30 °C48°C 0 lux500 lux100000 lux 0 m/s3 m/s35 m/s range of values for the		Use this entry field to ent text for the "Send va descriptive text is shown line (C). The entered to language 2. The control la system settings or via a Section 7.6).	er an 11-character descriptive riable values" feature. This on the display in the second text corresponds to control anguage is set directly via the communication object (see
corresponding data type.	The upper limit is set. If a		Text language 3	
threshold is exceeded because of the set interval, the object value is restricted to this value. Only values that are within the set value range are sent (see Section 4.9). This parameter appears only for the feature: "Send variable values".			Use this entry field to enter an 11-character descriptive text for the "Send variable values" feature. The descriptive text is shown on the display in the second line (C). The entered text corresponds to control language 3. The control language is set directly via the system settings or via a communication object (see Section 7.6).	
This parameter determin	0 1 100 % 0 10 32767 0.2/0.5/ 1.0 /2.5/5/10°C 0 lux 10 lux 100000 lux 0 m/s 1 m/s 35 m/s the increment by which the		Symbol V V V V The value to be sent is	alue [] alue [%] alue [°C] alue [kLux] alue [m/s] shown on the display in the
the buttons (G' and G) an Tapping the button incre	re pressed or decreased when re pressed. eases or decreases the current prement and then sends it		third line (C`) with the corresponding unit. This is an information bit.	selected data type and the
(see Section 4.9).	lerement and then sends it] [Symbol S	ET
Holding the button down current object value incr the "General" parameter value adjustment" and se	n increases or reduces the ementally by the time set in window "Repetition rate for ends this cyclically while the		A corresponding blind sy values" features group (group is shown on the o This is an information bit.	mbol is shown for the "Send see Section 4). The features lisplay in the fourth line (K).
button remains pressed. This parameter appears o variable values". Text language 1	On only for the feature: "Send		Block function via comm object	 no yes, if blocking object = 0 yes, if blocking object = 1 block always
Use this entry field to enter an 11-character descriptive text for the "Send variable values" feature. This descriptive text is shown on the display in the second			This parameter determine condition the display feature via the blocking object whe	s whether and under what ure operation is to be blocked len the button is pressed.
line (C). The entered language 1. The control system settings or via Section 7.6).	text corresponds to control language is set directly via the a communication object (see		Display value	
Text language 2		J r	Parameter	Setting

Parameter	Setting
Data type	1 bit
	8-bit decimal
	8-bit percent
	16-bit decimal
	16-bit float

Engineering Manual

Update: http://www.siemens.de/gamma

Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

Parameter	Setting	Parameter
This parameter selects the whose object content w controller. This parameter appears	e data type to be received and vill be shown on the room only for the feature: "Show	The value of the 1-bit objute the third line (C [*]) with the information bit. This parameter appears
value".	-	value" for the data types:
Factor (Display = value × factor × 0.1)	-100 10 100	Unit text This parameter enters a p are available for this. "%
This parameter sets a scalin value received via the bus between -100 and +100. T between different physical This parameter appears on value" for the data types: & 8-bit percent, 16-bit dee point values.	ng value. Accordingly, the is displayed with a factor of his facilitates a conversion units, e.g. Lux into kLux. ly for the feature: "Show 3-bit decimal cimal values, 16-bit floating	data type. This unit is shown on the Section 4.10). This parameter appears on value" for the data types: 8 8-bit percent, 16-bit dec point values.
Decimal places This parameter sets the variables with one or no floating point values wi places. This parameter appears value" for the data types:	01 02 alue display for 16-bit decimal decimal place or for 16-bit th one, two or no decimal only for the feature: "Show 16-bit decimal values, 16-bit	A corresponding blind syn values" features group (s group is shown on the of Figure 3). This is an inform Block function via comm object
Toating point values.		This parameter determin
Use this entry field to entread the shown on the display is entered text corresponds control language is set di or via a communication ob	er an 11-character descriptive eature. This descriptive text is n the second line (C). The to control language 1. The rectly via the system settings pject (see Section 7.6).	condition the display feature via the blocking object of Because this feature wor and no commands are trig G`), the blocking feature of
Text language 2		Display text:
Use this entry field to entread to the shown on the display is entered text corresponds control language is set di or via a communication ob	er an 11-character descriptive eature. This descriptive text is n the second line (C). The to control language 2. The rectly via the system settings oject (see Section 7.6).	Parameter Data type
Text language 3		
Use this entry field to entre text for the Show value for shown on the display i entered text corresponds control language is set di	er an 11-character descriptive eature. This descriptive text is n the second line (C). The to control language 3. The rectly via the system settings	
Symbol 1	<->0	

	Setting			
The value of the 1-bit object is shown on the display in the third line (C`) with the value "1" or "0". This is an information bit.				
This parameter appears only for the feature: "Show value" for the data types: 1 bit.				
Unit text				
This parameter enters a physical unit. Three characters are available for this. "%" is the default for the 8-bit data type. This unit is shown on the display in the third line (see				
This parameter appears only value" for the data types: 8-t 8-bit percent, 16-bit decir point values.	This parameter appears only for the feature: "Display value" for the data types: 8-bit decimal 8-bit percent, 16-bit decimal values, 16-bit floating point values			
Symbol Info	0			
A corresponding blind symbol is shown for the "Show values" features group (see Section 4). The features group is shown on the display in the fourth line (K, Figure 3). This is an information bit.				
group is shown on the dis Figure 3). This is an informa	splay in the fourth line (K,			
group is shown on the dis Figure 3). This is an informa Block function via comm. object	splay in the fourth line (K, tion bit. no yes, if blocking object = 0 yes, if blocking object = 1 block always			

Parameter	Setting	
Data type	1 bit	
	8-bit decimal	
	8-bit percent	
	16-bit decimal	
	16-bit float	
	Text message via object (14	
	byte)	

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting			
This parameter selects the data type to be received. Depending on the value content, you can configure different display messages to be shown on the room controller. Thresholds are set to differentiate the value				
contents				
This parameter appears of	nly for the feature: "Show			
text".	iny for the feature. Show			
Number of steps One threshold				
itumber of steps	Two thresholds			
This parameter determines the number of thresholds and thus the number of ranges. With a threshold, there are in the relevant value range two display ranges for which a display text can be shown in each case. With two thresholds, there are in the relevant value range three display ranges for which a display text can be shown in each case (see Section 4.11). This parameter appears only for the feature: "Show text" for the data types: 8-bit decimal 8 bit percent 16 bit decimal				
Threshold	0 170 255			
	0 66 100 %			
	0 40000 65535			
	-32/681000032/6/			
This parameter sets a threshold for the relevant value				
content below the threshold and another display text				
for value content above the	threshold			
This parameter appears only	for the feature: "Show text"			
for the data types: 8-bit deci	mal			
8-bit percent, 16-bit decima	al, 16-bit floating point and,			
if in the "Number of steps"	parameter - "one threshold"			
was set.				
Upper threshold	0 170 255			
	066100 %			
	U 40000 65535			
This parameter sate on	-32/08 1000032/0/			
value range. You can defi	er urreshold for the relevant			
value range. You can define a display text for value				
content above the upper threshold and another display				
text for value content within the upper and lower				
the lower threshold				
This parameter appears only	for the feature: "Show text"			
for the data types: 8-bit decimal				
8-bit percent, 16-bit decimal, 16-bit floating point and				
if in the "Number of steps" parameter - "two thresholds"				
was set.				
was set.				

Parameter	Setting			
Lower threshold	0 85 255			
	0 33 100 %			
	0 20000 65535			
	-32768 -10000 32767			
This parameter sets a lowe value range. You can defi content above the upper th text for value content wi thresholds, plus a display to the lower threshold. This parameter appears only for the data types: 8-bit deci 8-bit percent, 16-bit decima if in the "Number of steps" p	r threshold for the relevant ne a display text for value reshold and another display thin the upper and lower ext for value content below for the feature: "Show text" mal al, 16-bit floating point and, parameter - "two thresholds"			
was set.				
Text language 1				
Use this entry field to enter	an 11-character descriptive			
text for the Show text feature. This descriptive text is				
shown on the display in	the second line (C). The			
entered text corresponds t	o control language 1. The			
control language is set une	act (soo soction 7.6)			
Text language 2				
Text language 2	an 11 character descriptive			
text for the Show text feat shown on the display in entered text corresponds t control language is set dire or via a communication obje	the second line (C). The control language 2. The section 7.6).			
Text language 3				
Use this entry field to enter	an 11-character descriptive			
text for the Show text feature. This descriptive text is				
shown on the display in the second line (C). The				
entered text corresponds to control language 3. The				
control language is set directly via the system settings				
or via a communication obje	ect (see section 7.6).			

Text message when Off (0)

Parameter	Setting	
Text language 1		

Engineering Manual

Industry Sector, Building Technology Control Products & Systems t notice PO Box 10 09 53, D-93009 Regensburg

Siemens AG

Parameter	Setting	Parameter		Setting	
Use this entry field to ente	er an 8-character display text	Use this entry fiel	Use this entry field to enter an 8-character display tex		
for the value content = 0	for the value cont	ent = 1 o	f a 1-bit object (see section		
4.11). This disulate to the short	المتناه والمراب أوراده المتنا	4.11).			
line (C) The entered t	on the display in the third	This display text	is shown	on the display in the third	
language 1. The control la	ext corresponds to control	line (C'). The er	ntered te	xt corresponds to control	
system settings or via a	communication object (coo	language 2. The c	ontrol lan	guage is set directly via the	
section 7.6)	communication object (see	system settings o	or via a co	ommunication object (see	
This parameter appears of	only for the feature: "Show	section 7.6).			
text" for the data type: 1 b	it.	This parameter a	This parameter appears only for the feature: "Show		
Text language 2		text" for the data t	type: 1 bit		
Use this entry field to entry	er an 8-character display text	Text language 3			
for the value content = 0	of a 1-bit object (see section	Use this entry fiel	d to enter	an 8-character display text	
4.11).		for value content	t = 1 of	a 1-bit object (see section	
This display text is shown	on the display in the third	4.11).			
line (C'). The entered t	ext corresponds to control	This display text	is shown	on the display in the third	
language 2. The control la	nguage is set directly via the	line (C'). The er	ntered te	xt corresponds to control	
system settings or via a	communication object (see	language 3. The c	ontrol lan	guage is set directly via the	
section 7.6).		system settings o	or via a co	ommunication object (see	
This parameter appears of	only for the feature: "Show	section 7.6).			
text" for the data type: 1 b	it.	This parameter a	This parameter appears only for the feature: "Show		
Text language 3		text for the data t	ype: T bit		
Use this entry field to ente	er an 8-character display text	T the second for			
for the value content = 0	of a 1-bit object (see section	Text message for u	pper area		
4.11).	2		estiola)		
This display text is shown	n on the display in the third	Deveneter		Catting	
line (C'). The entered t	ext corresponds to control	Parameter	_	Setting	
language 3. The control la	nguage is set directly via the	Text language 1, 2	2, 3		
system settings or via a	communication object (see	Use this entry fiel	d to enter	an 8-character display text	
section 7.6).		for value content	\geq the up	oper threshold (see section	
This parameter appears of	only for the feature: "Show	4.11).			
text for the data type: I b	it.	This display text	is shown	on the display in the third	
		line (C). The enter	ered text of	corresponds in each case to	
Text message when On (1)		control languages	the sy	3. The control language is	
-		communication of	viect (see	section 7 6)	
Parameter	Setting	This parameter a	nnoars or	by for the feature: "Show	
Text language 1		text" for the data	tvnes 8	hit desimal 8 hit percent	
Use this entry field to ente					
	er an 8-character display text	16-bit decimal 16	5-bit floati	ng point and if "number of	
for the value content = 1	er an 8-character display text of a 1-bit object (see section	16-bit decimal, 16 steps" was set to "	5-bit floati two thresl	ng point and if "number of nolds".	
for the value content = 1 4.11).	er an 8-character display text of a 1-bit object (see section	16-bit decimal, 16 steps" was set to "	5-bit floati two thres	ng point and if "number of nolds".	
for the value content = 1 4.11). This display text is shown	er an 8-character display text of a 1-bit object (see section n on the display in the third	16-bit decimal, 16 steps" was set to "	5-bit floati two thresh	ng point and if "number of nolds".	
for the value content = 1 4.11). This display text is shown line (C'). The entered t	er an 8-character display text of a 1-bit object (see section n on the display in the third ext corresponds to control	16-bit decimal, 16 steps" was set to " Text message for m (value between thr	5-bit floati two thresh niddle area	ng point and if "number of nolds".	
for the value content = 1 4.11). This display text is shown line (C'). The entered t language 1. The control la	er an 8-character display text of a 1-bit object (see section n on the display in the third ext corresponds to control nguage is set directly via the	16-bit decimal, 16 steps" was set to " Text message for m (value between thr	5-bit floati two thresh niddle area resholds)	ng point and if "number of nolds".	
for the value content = 1 4.11). This display text is shown line (C'). The entered t language 1. The control la system settings or via a	er an 8-character display text of a 1-bit object (see section n on the display in the third ext corresponds to control nguage is set directly via the communication object (see	16-bit decimal, 16 steps" was set to " Text message for m (value between thr	5-bit floati two thresh niddle area resholds)	ng point and if "number of nolds".	

This parameter appears only for the feature: "Show text" for the data type: 1 bit.

Text language 2

Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

Siemens AG

Text language 1, 2, 3

April 2013

Parameter

07B0 CO Room Control Unit 970101

Setting

Use this entry field to enter an 8-character display text for value content < the upper threshold and > the lower threshold (see section 4.11).

This display text is shown on the display in the third line (C'). The entered text corresponds in each case to control languages 1, 2 and 3. The control language is set directly via the system settings or via a communication object (see section 7.6).

This parameter appears only for the feature: "Show text" for the data types: 8-bit decimal, 8-bit percent, 16-bit decimal, 16-bit floating point and if "number of steps" was set to "two thresholds".

Text message for lower area (value below lower threshold)

Parameter		Setting		
Text language 1, 2, 3		5		
Use this entry field to enter an 8-character display text for value content < the lower threshold (see section 4.11). This display text is shown on the display in the third line (C'). The entered text corresponds in each case to control languages 1, 2 and 3. The control language is set directly via the system settings or via a				
communication object (see section 7.6). This parameter appears only for the feature: "Show text" for the data types: 8-bit decimal, 8-bit percent, 16-bit decimal, 16-bit floating point and if "number of steps" was set to "two thresholds".				
Parameter		Setting		
Indication	(Te	xt message via object)		
The value content received via the 14-byte object is shown directly on the display in the third line (C`). This is an information bit. This parameter appears only for the feature: "Show text" for the data type: Text message via object (14 bytes)				
Symbol	Tex	t		
A corresponding symbol is shown for the "Show text" features group (see section 4). The features group is shown on the display in the fourth line (K, Figure 3). This is an information bit.				
Block function via comm. no object yes blo		no yes, if blocking object = 0 yes, if blocking object = 1 block always		

Setting

This parameter determines whether and under what condition the display feature operation is to be blocked via the blocking object when the button is pressed. Because this feature works as a pure display feature and no commands are triggered via the buttons (G and G`), the blocking feature remains non-operational.

9.5.1 Communication objects display features

Switching:

Parameter

Obj	Object name	Feature	Туре	Flag
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, switching	On/Off	1 bit	ΚÜ
If eit "Off" obje With teleo "Off" value With butto the o "Off" With	her of the butto switching teleg the Change swi gram is sent via t switching teleg sed. With each a e is sent in each the feature Pres on is pressed, an corresponding ol telegram is sen the feature Pres on is pressed, an corresponding ol	ns (G or G') is presse ram is sent via the c tching feature, an "(he corresponding o ram is sent the next dditional press, the case (Toggle feature as = On/release = Off "On" switching tele oject and on releasin t. ss = Off/release = Or "Off" switching tele	ed, an "Or orrespon Dn" switc bject and time it is inverted e). f, when tl gram is s ng the bu og the bu	n" or ding hing an object he ent via tton an he tton an

Obj	Object name	Feature	Туре	Flag			
21, 27, 33, 39, 45, 51, 57, 63	1-8. function, switching	Status	1 bit	KSÜA			
Depe is sh third	Depending on this object's received value, the value (0/1) is shown as the status of the Switching feature in the third line of the display.						
24,1-8. scheduler,On/Off1 bitKÜ30,switching42,48,54,60,66							
This object sends the switching telegram "On" or "Off", which was triggered at a set time via the weekly timer (see section 8.1)							

Switching, dimming:

Obj	Object name	Feature	Туре	Flag	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, switching	On/Off	1 bit	ΚÜ	
lf eit "Off" Tapp hold light	If either of the buttons (G or G') is tapped, an "On" or "Off" switching telegram is sent via the object. Tapping a button produces a Switch on command and holding the button down a Dimming command for the lighting				
21, 27, 33, 39, 45, 51, 57, 63	1-8. function, dimming	Brighter/darker	4 bits	KÜ	

Obj	Object name	Feature	Туре	Flag	
If either of the buttons (G or G') is held down, the object sends a "brighter" or "darker" telegram. Tapping a button produces a Switch on command and holding the button down a Dimming command for the lighting.					
22, 28, 34, 40, 46, 52, 58, 64	1-8. function, dimmer status	Value	1 bytes	KLSÜA	
Depe 100 ⁰ statu	ending on this ol %) is shown in th us of the Dimmir	bject's received valu ne third line of the d ng feature.	e, the val isplay as	ue (0 to the	
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, dim value	Value	1 byte	KÜ	
This whic (see	This object sends the switching telegram "On" or "Off", which was triggered at a set time via the weekly timer (see section 8.1)				

Switching with force control:

Obj	Object name	Feature	Туре	Flag	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function left, forced control	forced Off/inactive	2 bits	KSÜ	
Tapp value Hold the l Tapp hold over	Tapping the button (G) sends an "Override Off" (binary value = 10) telegram via the 2-bits override object. Holding down the button (G) disables the override with the binary value "00". Tapping a button produces an Enable command and holding the button down a Disable command for override.				

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

01:	Object nem-	Feeture	Turne	ГІан
Ubj	Object name	reature	туре	Flag
21,	1-8. function	forced On/inactive	2 bits	KSU
27,	right, forced			
55, 39	control			
45.				
51,				
, 57,				
63				
Тарр	oing the button ((G') sends an "Overri	ide On" (l	binary
value	e = 11) telegram	n via the 2-bits overr	ide objec	ct.
Hold	ing down the bu	utton (G') disables th	ne overrio	de with
the t	oinary value "01"	". . –		
lapp	ing a button pro	oduces an Enable co	mmand a	and
over	ride	IOWIT & DISADle COITI		
22	1.9 function	Status (Actuator)	1 hit	VCÜA
22, 28	forced control	Status (Actuator)		KSUA
20, 34.				
40,				
46,				
52,				
58,				
64				
Depe	ending on this o	bject's received valu	e, the va	lue (0/1)
is sh	own in the third	l line of the display a	as the sta	tus of
the s		el.		
24,	1-8. scheduler,	forced On/Off/	2 bits	KU
30, 26	forced control	inactive		
30, ∕\2				
48				
54.				
60,				
66				
This	object sends the	e switching telegran	n "Overric	de On"
or "C	override Off", wł	nich was triggered a	t a set tin	ne via
the v	weekly timer (se	e section 8.1)		

Sun protection:

Engineering Manual

Update: http://www.siemens.de/gamma

97010, 102 pages

54, 60,

66

Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

Object nameFeatureTypeFlagThis object sends the value for the blind position
(hanging height) (0 to 100%), which was triggered at a
set time via the weekly timer (see section 8.1)

Roller shutter:

Obj	Object name	Feature	Туре	Flag	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, roller shutter	stop	1 bit	ΚÜ	
If eit com Hold the s mov	her of the butto mand is sent via ing the button c shutter and tapp ement.	ns (G or G') is tapped the object. lown generates a co ing it a command to	d, a "Stop mmand t stop the	" o move	
21, 27, 33, 39, 45, 51, 57, 63	1-8. function, roller shutter	up/down	1 bit	ΚÜ	
If eit send Hold the s mov	If either of the buttons (G or G') is held down, the object sends an "Up" or "Down" shutter movement command. Holding the button down generates a command to move the shutter and tapping it a command to stop the movement.				
22, 28, 34, 40, 46, 52, 58, 64	1-8. function, roller shutter	Status	1 byte	KSÜA	
Depe 100 ⁰ statu	Depending on this object's received value, the value (0 to 100%) is shown in the third line of the display as the status of the hanging height.				

Obj	Object name	Feature	Туре	Flag	
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, roller shutter	Position	1 byte	ΚÜ	
This (han set t	This object sends the value for the shutter position (hanging height) (0 to 100%), which was triggered at a set time via the weekly timer (see section 8.1)				

8-bit scene recall / save:

Obj	Object name	Feature	Туре	Flag	
100	18. function, scene	scene number	1 byte	KÜ	
Pressing the button (G') sends an 8-bit scene with the set scene number via the object. Holding down the button (G) sends an 8-bit scene with the set scene number via the object. The scene numbers (164) are stored in bits 0 to 5 of the 8-bit object (1 to 64). The highest value bit 7 states whether the scene is recalled (bit = 0) or programmed (bit = 1). Bit 6 is not used.					
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, Scene	scene number	1 byte	ΚÜ	
This calle the v	This object sends the value for the scene number to be called up (1 to 64) which was triggered at a set time via the weekly timer (see section 8.1)				

1-bit scene recall / save:

April 2013

07B0 CO Room Control Unit 970101

Obj	Object name	Feature	Туре	Flag	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, scenes 1/2	recall	1 bit	ΚÜ	
Pres: with	sing the button a "0" telegram a	(G') calls up, via the and scene 2 with a "'	e object, 1" telegra	scene 1 m.	
21, 27, 33, 39, 45, 51, 57, 63	1-8. function, scenes 1/2	save	1 bit	ΚÜ	
Hold scen teleg	ling down the bu e 1 with a "0" te gram.	utton (G') calls up, vi legram and scene 2	a the obj with a "1	ect, "	
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, scene	recall	1 bit	ΚÜ	
This be ca wee	This object sends the value for the scene number (1/2) to be called up, which was triggered at a set time via the weekly timer (see section 8.1)				

Send fixed/variable values:

Obj	Object name	Feature	Туре	Flag	
20,	1-8. function,	Value	1 byte	KÜ	
26,	8-bit value				
32,					
38,					
44,					
50,					
56,					
62					
Press value on th	Pressing the button (G`) or (G` and G) sends decimal values between 0 and 255, firmly set, configured or set on the display via the corresponding object.				

Obj	Object name	Feature	Туре	Flag	
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, 8-bit value	Value	1 byte	ΚÜ	
This trigg 8.1)	This object sends values between 0 and 255 which were triggered at a set time via the weekly timer (see section 8.1)				
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, 8-bit value	Value	1 byte	ΚÜ	
Press value on th	sing the button (es between 0 an ne display via the	(G`) or (G` and G) so d 100%, firmly set, o e corresponding obj	ends perc configure ect.	entage d or set	
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, 8-bit value	Value	1 byte	ΚÜ	
This were secti	This object sends values between 0 and 100% which were triggered at a set time via the weekly timer (see section 8.1)				

Obj	Object name	Feature	Туре	Flag	
20, 26, 32, 38, 44, 50, 56,	1-8. function, 16-bit value	Value	2 byte	ΚÜ	
Pres	Brassing the button (C) or (C) and C) sonds desimal				
valu set c	values between 0 and 65535, firmly set, configured or set on the display via the corresponding object.				

Engineering Manual

97010, 102 pages

Obj	Object name	Feature	Туре	Flag
24,	1-8. scheduler,	Value	2 byte	КÜ
30,	16-bit value			
36,				
42,				
48,				
54,				
60,				
66				
This	object sends val	ues between 0 an	d 65535 wl	hich
were	e triggered at a s	et time via the we	ekly time s	witch
(see section 8.1)				
20,	1-8. function,	Value	2 bytes	KÜ
26,	temperature		-	
32,				
38,				
44,				
, 50,				
56,				
, 62				
Pres	sing the button ((G`) or (G` and G)	sends	
tem	perature values l	petween -30°C and	1 +48°C fir	mly set
conf	igured or set on	the display via the	r + 0 C, m	dina
ohie	rguieu or set orr	the display via the	. concspon	ung
24	1.9 schodulor	Value	2 bytes	ИÜ
24,	1-0. Scheduler,	value	2 Dytes	κυ
30, 26	temperature			
30, ∡⊃				
4Z, 40				
48, F4				
54,				
60, 66				
00				
This	object sends val	ues between -30°	C and +48°	C which
were	e triggered at a s	et time via the we	ekly timer (see
secti	on 8.1)			
20,	1-8. function,	Value	2 bytes	KÜ
26,	brightness			
32,		1		
38,				
38, 44,				
38, 44, 50,				
38, 44, 50, 56,				
38, 44, 50, 56, 62				
38, 44, 50, 56, 62	sing the button ((6`) or (6` and 6)	sends set	
38, 44, 50, 56, 62 Press	sing the button ((G`) or (G` and G)	sends set	mly set
38, 44, 50, 56, 62 Press brigh	sing the button (ntness values be	(G`) or (G` and G) tween 0 and 100, the display via the	sends set 200 lux, firi	mly set,
38, 44, 50, 56, 62 Press brigh conf	sing the button (ntness values be igured or set on	(G`) or (G` and G) tween 0 and 100,(the display via the	sends set 200 lux, firi correspon	mly set, ding

Obj	Object name	Feature	Туре	Flag	
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, brightness	Value	2 bytes	ΚÜ	
This whic swite	object sends val ch were triggered ch (see section 8	ues between 0 and d at a set time via 1 3.1)	d 100000 l the weekly	ux time	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, wind speed	Value	2 bytes	ΚÜ	
Press spee conf obje	Pressing the button (G`) or (G` and G) sends set wind speed values between 0 and 35 m/s, firmly set, configured or set on the display via the corresponding object				
24, 30, 36, 42, 48, 54, 60, 66	1-8. scheduler, wind speed	Value	2 bytes	ΚÜ	
This were secti	object sends val e triggered at a s on 8.1)	ues between 0 and et time via the we	d 35 m/s w ekly timer	hich (see	

Display value:

Obj	Object name	Feature	Туре	Flag
20,	1-8. function,	On/Off	1 bit	KSÜA
26,	value			
32,				
38,				
44,				
50,				
56,				
62				

Update: http://www.siemens.de/gamma

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Obj	Object name	Feature	Туре	Flag	
A 1-I	oit value, showir	ng the value ("0" or	r "1") conta	ined in	
it in	the third line of	the display, is rece	ived via th	is	
obje	ct.				
20,	1-8. function.	Value	1 bvtes	KSÜA	
26,	value		j		
, 32,					
38,					
44,					
50,					
56,					
62					
A 1 F	Byte decimal valu	le, showing the va	lue contai	ned in it	
and	the set scaling in	the third line of t	he display.	is	
rece	ived via this obie	ect.			
20			4 1. 4 .	KCÜA	
20,	1-8. Tunction,	value	T bytes	KSUA	
20,	value				
5Z, 20					
50, 11					
44, 50					
50, E6					
50, 62					
02					
A 1 I	Byte percentage	value, showing th	e value cor	ntained	
in it	and the set scali	ng in the third line	e of the disp	olay, is	
rece	ived via this obje	ect.			
20,	1-8. function,	Value	2 bytes	KSÜA	
26,	value				
32,					
38,					
44,					
50,					
56,					
62					
A 16	-bit decimal valu	ie, showing the va	lue contair	ned in it	
and	the set scaling ir	n the third line of t	he display,	is	
rece	ived via this obje	ect.			
20.	1-8. function	Value	2 bytes	KSÜA	
26.	value			/ .	
32.					
38.					
44.					
50.					
56.					
62					
Δ 1 6	-hit floating noi	nt value, showing :	the value in	n the	
third	l line of the displ	av depending on	the value II	i uic	
cont	ained in it and th	he set scaling is re	ceived via	this	
ohie	ct	ie set scaling, is te		ans	
obje	object.				

Display text:

Obj	Object name	Feature	Туре	Flag	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, text assignment	On/Off	1 bit	KSÜA	
A 1-l displ it, is	bit value, showir ay, depending o received via this	ng the set text in th In the value ("0" or I object.	ne third line "1") contai	e of the ined in	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, text assignment	Value	1 bytes	KSÜA	
A 1-l line the s	byte decimal values of the display, de set threshold.	ue, showing the se epending value co	et text in th ntained in i	e third it and	
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, text assignment	Value	1 bytes	KSÜA	
A 1-l third cont obje	A 1-byte percentage value, showing the set text in the third line of the display, depending on the value contained in it and the set threshold, is received via this object				
20, 26, 32, 38, 44, 50, 56, 62	1-8. function, text assignment	Value	2 bytes	KSÜA	
A 16 line it an	-bit decimal valu of the display, de d the set threshe	ie, showing the se epending on the v old, is received via	t text in the alue contai this object	e third ned in	

Engineering Manual

97010, 102 pages

April 2013

07B0 CO Room Control Unit 970101

Obj	Object name	Feature	Туре	Flag
20,	1-8. function,	Floating value	2 bytes	KSÜA
26,	text			
32,	assignment			
38,				
44,				
50,				
56,				
62				
A 16-bit floating point value, showing the set text in the third line of the display, depending on the value contained in it and the set threshold, is received via this object.				

Obj	Object name	Feature	Туре	Flag	
20,	1-8. function,	text string	14 bytes	KSÜA	
26,	text message				
32,					
38,					
44,					
50,					
56,					
62					
A 14-byte value is received via this object and shown					
direc	directly in the third and fourth line of the display,				
depe	ending on the va	lue contained in it	•		

9.6 Alarm parameters – General

General				
Display	Max. duration of accoustic alarm signal	1 minute 🔹		
Behaviour after bus voltage recovery	Alarm signal is repeated	5 minutes		
Info area (Line 1)	automatically after			
1st. function	Common acknowledement of	if object = 0		
2nd. function	all pending alarms			
3rd. function				
4th. function	Alarm function 1 active			
5th. function	Alarm function 1 active	no		
6th. function				
7th. function				
8th. function				
Alarm - General				
Controller - General				
Operating mode, controller				
Operating mode, room				
Frost/heat alarm				
Temperature, actual value				
Temperature, setpoint values				
Heating, PI-control				
Heating, valve				
Cooling, PI-control				
Cooling, valve				

97010, 102 Seiten

Engineering Manual Update: http://www.siemens.de/gamma

SIEMENS

07B0 CO Room Control Unit 970101

Parameter	Setting	
Max. duration of	10 seconds	
acoustic alarm signal	30 seconds	
	1 minute	
	2 minutes	
	3 minutes	
	4 minutes	
	5 minutes	
	6 minutes	
	10 minutes	
	15 minutes	
	20 minutes	
	25 minutes	
	30 minutes	
Use this parameter to	set the time after which the	
for this set time if the al	arm is not cleared	
Alarm signal is	10 seconds	
repeated	30 seconds	
automatically after	1 minute	
-	2 minutes	
	3 minutes	
	4 minutes	
	5 minutes	
	6 minutes	
	10 minutes	
	15 minutes	
	20 minutes	
	25 minutes	
	30 minutes	
Use this parameter to set the time after which the audio signal is switched off after an automatic switch off or restarts after an acknowledgement/mute switch.		
setting of the individual alarms, the setting "alarm tone		
repeated constantly" is selected.		

Parameter	Setting		
Common acknowledgment of all pending alarms	If Object = 0 If Object = 1		
All outstanding alarms can be confirmed with a collective acknowledgement via a 1-bit communication object.			
confirmed with value co	ntent "0" or "1".		

Parameter	Setting
Alarm function 1- 8	no
active	yes
Depending on the or appears up to 8 times. We are shown for configue additional parameter individual alarms are sho	configuration, this parameter With the setting "No", no alarms ration. With the setting "Yes", windows for configuring the own.

9.6.1 Alarm communication objects – General

Obj	Object name	Feature	Туре	Flag	
101	Alarm	clear with 0/(1)	1 bit	KLSÜ	
	clearing (all)				
This object produces a collective clearing of all alarms via					
the bus. Depending on configuration, the confirmation					
content can be "0" or "1".					

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

9.6.2 Alarm parameters

8 Alarms can be set:

General	Description alarm		_	
Display	(Language 1)			
Behaviour after bus voltage recovery	Description alarm		_	
Info area (Line 1)	(Language 2)			
1st. function	Description alarm		_	
2nd. function	(Language 3)			
3rd. function	Alarm cumbol / value	[- la - u		
4th. function	Alarm symbol / value	alarm	_	
5th. function				
6th. function	Type for monitoring	1.64	-	
7th. function	Type for monitoring	1-bit	-	
8th. function	Trigger condition	only on the first alarm	•	
Alarm - General			_	
Alarm 1	Condition for alarm	if ON	•	
Controller - General			_	
Operating mode, controller	Benaviour if alarm occurs	without alarm tone	•	
Operating mode, room	Output object is sent on	alarm being triggered		
Frost/heat alarm			<u> </u>	
Temperature, actual value				
Temperature, setpoint values	Block this alarm	no	•	
Heating, 2 level control			_	
Heating, valve				
Cooling, PI-control				
Cooling, valve				

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting	Parameter		Setting	
Description Alarm (Language 1)		Trigger cond	dition	on every alarm only on the first alarm	
Use this entry field to en text for the alarm. This display in the second corresponds to contro language is set directly v communication object (s	ter an 11-character descriptive alarm name is shown on the line (C). The entered text l language 1. The control via the system settings or via a see section 7.6).	With the sett whenever th to the config With the sett triggered on (=) is identic	ing "for an e value of f ured thresl ing "only o ce whenev al to the co	y alarm", an alarm is triggered the trigger object (=) is identic hold. n the first alarm", an alarm is er the value of the trigger obje nfigured threshold.	
Description Alarm (Language 2)		This paramet monitoring"	ter appears - "1 bit" wa	only if in the setting "Type for s selected.	
Use this entry field to en text for the alarm. This	ter an 11-character descriptive alarm name is shown on the	Condition fo	or alarm	if Off if On	
display in the second corresponds to contro language is set directly v communication object (s	line (C). The entered text l language 2. The control via the system settings or via a see section 7.6).	This paramet object an ala This paramet for monitorir	ter sets at v rm should ter appears ng" - "1 bit"	which value of the alarm trigge be activated. only if in the setting "value typ was selected.	
Description Alarm		Number of t	hresholds	One threshold	
text for the alarm. This alarm name is shown on the display in the second line (C). The entered text corresponds to control language 3. The control language is set directly via the system settings or via a communication object (see section 7.6).		These thre conditions. (This paramet "8-bit percent was selected	This parameter determines the number of theshold These thresholds define the alarm triggerin conditions. (see section 5.2). This parameter appears only if "8-bit decimal", "8-bit percent", "16-bit decimal" or "16-bit floating poin was selected in the setting "Type for monitoring".		
Alarm symbol/value This parameter selects a alarm. This will be show of the third line (C') in triggered. Alternatively, indicated (see section 5	[Value] Alarm Warning Window Wind Temperature an appropriate symbol for the n on the display in the center an alarm page, if an alarm is the alarm value can also be 1)	Alarm if valu	le	equals threshold (always) threshold threshold threshold threshold threshold equals threshold (once) Threshold exceeded (leading edge) Threshold not reached (trailin edge)	
Type for monitoring This parameter selects th	1 bit 8-bit decimal 8-bit percent 16-bit decimal 16-bit float e data type to be received, the				
object content for alarm via threshold(s).	triggering of which is analyzed				

Engineering Manual

97010, 102 pages
Parameter Setting		Parameter	Settina	
This parameter sets the comparison operator, referred		This parameter sets a t	hreshold fo	r the alarm condition.
to the set threshold. With the setting "equals threshold		This parameter appears only if "8-bit decimal".		nit decimal"
(always)", an alarm is triggered whenever the value of		"8-hit percent" "16-hit	decimal" or	"16-bit floating
the trigger object (=) is identical to the configured		noint" was selected in	the setting '	"value type for
threshold.		monitoring" and a three	shold was s	set.
With the setting "> threshold", an alarm is triggered		Linn on thus should	0 170	255
whenever the value of the trigger object is > the		Opper threshold	0170	.233
configured threshold. With the setting "< threshold", an			000	00 /0
alarm is triggered whenever the value of the trigger			-32768	10000 32767
object is < the configured threshold. With the setting " \geq		This parameter sets a	n upper th	reshold for the alarm
threshold", an alarm is triggered whenever the value of		condition	i upper un	
the trigger object is \geq the configured threshold.		This parameter appears	only if "9 h	vit docimal"
With the setting "< threshold", an alarm is triggered		"9 hit parcant" "16 hit	decimal" or	"16 bit floating
whenever the value of the trigger object is \leq the		o-bit percent, To-bit	the cotting '	"Type for monitoring"
configured threshold. With the setting "equals		and two thresholds we	ro sot	Type for monitoring
the value of the trigger object () is identical to the				
configured threshold		Lower threshold	02	255
With the setting "Threshold exceeded (leading edge)"			0	00 %
an alarm is triggered once whenever the value of the			-32768	-10000 32767
trigger object is $>$ the configured threshold. With the		This parameter sets	-J2700.	ashold for the alarm
setting "Threshold not reached (trailing edge)", an		condition	lower thi	eshold for the alarm
alarm is triggered once whenever the value of the		This parameter appears	only if "O h	vit docimal"
trigger object is < the configured threshold (see section		"O bit paragent" "16 bit	desimal" or	ueciniai,
5.2).		8-bit percent , 16-bit	decimal or	"Type for monitoring"
This parameter appears only if "8-bit decimal",		and two thresholds we	ro sot	Type for monitoring
"8-bit percent", "16-bit decimal" or "16-bit float" was			IC SCL	
selected in the setting "Type for monitoring" and a		Behaviour if alarm oc		but alarm tone
threshold was set.			Alarm	tone once
Alarm if value beyond or equal of			Alarn	n tone repeated
thresholds			Conti	nuousiy
between or equal of thresholds		This parameter sets wh	iether and h	how the triggering of
This parameter sets the comparison operator, referred		an alarm should be col	ifirmed aud	IIDIY.
to the set thresholds. With the setting " \geq threshold", an		with the setting with	out alarm to o olorm ic tr	ine, no audio signal
alarm is triggered whenever the value of the trigger		displayed poisolossly o	e didiiii is li n tha dianla	iggereu. The alarithis
object is \geq the configured threshold. With the setting " \geq		With the setting "Alarm	i tono onco	", a ono-timo alarm
thresholds", an alarm is triggered whenever the value		tone is reproduced for a given, set time when the alar		, a one-time alarm
of the trigger object is within or equal to the		is triggered	a given, set	
configured threshold (see section 5.2).		With the setting "Alarn	n tone repea	ated continuously".
Inis parameter appears only if "8-bit decimal", "8-bit		an alarm tone is reprod	luced for a	given, set time when
percent, 10-bit decimal or 16-bit floating point" was		the alarm is triggered.	After this al	arm tone, the alarm
two thresholds were set		message is displayed n	oiselessly fo	or a given set time
		until the audio tone is	emitted aga	ain.
Inresnoid 0127255				
0 30 100 %				
-32768 0 32767				

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Parameter	Se	tting	Para	meter	S	etti
Output object is sent o	n	confirmation Alarm being triggered Alarm being triggered (with alarm tout)	Alar [Lan You	m text to be sei iguage 3] can enter an ala	nt rm tex	xt w
(with alarm text) The "Confirmation" setting sets the value of the output object to a configurable value "1" or "0" and sends this after an alarm acknowledgement. The "Alarm being triggered" setting sets the value of the alarm output object for triggering the alarm to "1" and sends this after an alarm is triggered.		text alarr cont or vi This sent	is sent via the bu n text correspon rol language is s a a communicat parameter appea on" "Alarm being	et, an us (14 et dire ion ob rs only trigge	-byt con ectly oject y witered	
The setting "Alarm being sets the alarm output ob after an alarm is triggere	i trig ject d a	ggered (with alarm text)" t value to "1" and sends this nd simultaneously transfers	Bloc	k this alarm		n y y
Object value after alarr confirmation	n	Off (0) On (1)	This parameter determines condition signaling of the ala is to be suppressed.			≥s w alar
This parameter defines v should be sent after a co This parameter appears of be cont on "Confirmation"	vhio nfii nly '	mation, 1 = Yes). with the "Output object will	9	.6.3 Alarm co	mmu	nica
Alarm text to be cent			0bj 68	1-8 Alarm	Feati	Jre ff
[Language 1] You can enter an alarm t alarm condition is met, a text is sent via the bus (1 alarm text corresponds t control language is set d	ext in a 4-b o co ireo	with 11 characters. If the larm is triggered and this byte object). The entered ontrol language 1. The ctly via the system settings	72, 76, 80, 84, 88, 92, 96	value		
This parameter appears or sent on" "Alarm being trig	nly ger	with the "Output object is ed (with alarm text) ".	The trigg trigg	value content c ger condition. If gered.	of the the	se c con
Alarm text to be sent [Language 2] You can enter an alarm t alarm condition is met, a text is sent via the bus (1 alarm text corresponds t control language is set d or via a communication	ext in a 4-k irec obje	with 11 characters. If the larm is triggered and this byte object). The entered ontrol language 2. The ctly via the system settings ect (see section 7.6).	68, 72, 76, 80, 84, 88, 92, 96	1-8 Alarm, monitored value	Value	
This parameter appears only with the "Output object is sent on" "Alarm being triggered (with alarm text) ".		The com	value content pared with a tr	(0 t rigger	to 2 cor	

Parameter	Setting	
Alarm text to be sent [Language 3]		
You can enter an alarm text with 11 characters. If the alarm condition is met, an alarm is triggered and this text is sent via the bus (14-byte object). The entered alarm text corresponds to control language 3. The control language is set directly via the system settings or via a communication object (see section 7.6). This parameter appears only with the "Output object is cant on" "Alarm being triggered (with alarm text)."		
Block this alarmnoyes, if object = 0yes, if object = 1		
This parameter determines whether and under what condition signaling of the alarm via the blocking object is to be suppressed.		

tion objects

Ubj	Object name	Feature	Туре	Flag	
68,	1-8 Alarm,	On/Off	1 bit	KLSÜA	
72,	monitored				
76,	value				
80,					
84,					
88,					
92,					
96					
The	value content c	of these objects is	compared	l with a	
trigg	trigger condition. If the condition is met, an alarm is				
trigg	ered.				
68,	1-8 Alarm	Value	1 hytor		
- /	i o , admi,	value	Tuytes	KLSUA	
72,	monitored	Value	Tuytes	KLSUA	
72, 76,	monitored value	Value	1 bytes	KLSUA	
72, 76, 80,	monitored value		Tuytes	KLSUA	
72, 76, 80, 84,	monitored value		T bytes	KLSUA	
72, 76, 80, 84, 88,	monitored value		T bytes	KLSUA	
72, 76, 80, 84, 88, 92,	monitored value		Tubytes	KLSUA	
72, 76, 80, 84, 88, 92, 96	monitored value		Tbytes	KLSUA	
72, 76, 80, 84, 92, 96 The	value content	(0 to 255) of	these ob	jects is	
72, 76, 80, 84, 92, 96 The com	value content pared with a tr	(0 to 255) of igger condition.	these ob	ijects is	

Obj	Object name	Feature	Туре	Flag	Ob
68,	1-8 Alarm,	Value	1 bytes	KLSÜA	70
72,	monitored				74
76,	value				78
80,					82
84,					86
88,					90
92,					94
96					98
The	value content	(0 to 100%) of	these ob	ojects is	lf
com	pared with a tr	igger condition.	If the cond	dition is	tri
met,	an alarm is trigg	gered.			Th
68,	1-8 Alarm,	Value	2 bytes	KLSÜA	"A
72,	monitored		,		69
76,	value				73
80,					77
84,					81
88,					85
92,					89
96					93
The	value content	(0 to 65535) o	f these ob	piects is	97
com	pared with a tr	igger condition.	If the cond	dition is	lf
met.	an alarm is trigo	gered.			th
68	1-8 Alarm	Floating point	2 bytes	ΚΙ SÜA	te
72.	monitored	value	2 59 105	IXES OF Y	ob
76.	value				pa
80.					71
84.					75
88.					79
92.					83
96					87
The	value content (-	32768 to 32767)	of these o	biects is	91
com	pared with a tr	igger condition	If the cond	dition is	95
met	an alarm is trigg	gered.			99
70	1-8 Alarm	0 = a arm c eared	1 hit	КÜ	lf
74	confirmation	1 = alarm cleared		NO	ala
78, 78	output				va
22, 82	output				
86 86					
90, 90					
94					
98					
lf at	fter an alarm ba	s heen triggered	this is con	ofirmed	
n, a the s	value of this of	oct is set to "1" or	uns is cor r "O" and c	ant Thic	
value	content is confi	europla This abias	t appears s	nly with	
vaiue	"Output object :	guiable. Inis objec	r appears c	any with	
the "Output object is sent on" "Confirmation" parameter					
Selec					

Obj	Object name	Feature	Туре	Flag	
70,	1-8 Alarm,	1 = Alarm active	1 bit	KÜ	
74,	output				
78,					
82,					
86,					
90,					
94,					
98					
IT th	e alarm conditio	on was met and i	inus an aia	arm was	
Thic	ered, the value	of this object is s	utobioctic	na sent.	
"Alar	object appears of	d" parameter coloct	ion	sent on	
Aiai		Tout atrice	1011.	ИЦÜ	
69, 72	T-8 Alarm,	Text string	14 bytes	KLU	
75, 77	Text message				
77, 81					
85					
89, 89					
93.					
97					
If th	ne alarm condi	tion was met a	nd an ala	rm was	
there	efore triggered,	this object sends	a configure	ed alarm	
text via the bus. This object appears only with the "Output					
object is sent on" "Alarm being triggered (with alarm text)"					
parai	meter selection.				
71,	1-8 Alarm,	block/enable	1 bit	KSÜA	
75,	blocking				
79,					
83,					
87,					
91,					
95,					
99		all '	al.*		
if th	e value "U" or "	I IS received via	this selec	tion, no	
aiarn	n is indicated	or this alarm ch	annei. The afigurad	e object	
value	e ioi biocking th	e alalili cali pe col	inguieu.		

.

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

9.7 Room temperature controller/fan control parameters

9.7.1 Temperature controller parameters – General

General	Device function	
Display	Device function	operating device / controller
Behaviour after bus voltage recovery	Fan equipped	ves
Info area (Line 1)		
1st. function	Object presence	no
2nd. function		
3rd. function	Object permanent protection mode	no
4th. function	Block operating mode	
5th. function	block operating mode	10
6th. function	Block setpoint adjustment	no
7th. function		
8th. function	Number of window contacts	0
Alarm - General		
Alarm 1	8-bit objects room mode /	no 🔻
Controller - General	room mode status	
Operating mode, controller	8-bit object controller status (Eberle)	no 🔻
Operating mode, room		
Frost/heat alarm	16-bit object controller status (RHCC)	no 🔻
Temperature, actual value	Setpoint adjustment at display	via catagiat chiffing
Temperature, setpoint values		Via second sincing
Heating, 2 level control	Range for setpoint shifting	±3.0 K 🔹
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

Parameter	Setting			
Device function	Operating device/Controller Operating device			
The room controller can be configured as a controller or only as an operating device. All configuration parameters are listed below. The various parameters for configuration are offered based on this selection.				
Calculate setpoint yes				
no				
This parameter specifies whether the room temperature controller will be operated only as a user station or whether a nominal value calculation should also be performed. The relevant objects and parameters are then faded in.				
This parameter is only displayed if the device feature is set to "Operating device"				
Fan equipped	yes			
no				

Parameter	Setting			
This parameter specifies whether a fan is available. Additional "Fan" parameters for configuration are offered based on this selection.				
Object presence	yes no			
This specifies whether the "Presence" communication object should be added or not. Messages via this communication object are analyzed to activate the Comfort room mode.				
Object permanent protection mode	yes no			
This specifies whether the "Permanent Protection Mode" communication object should be added, through which the controller can be switched permanently to room "Protection Mode".				
Block operating mode	yes			
	no			

Engineering Manual

Update: http://www.siemens.de/gamma

97010, 102 pages

Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

Parameter	Setting	F	Parameter	Setting
This parameter blocks l	ocal adjustment of the room	1	This specifies whether the	two communication objects
temperature controller mo	ode by the user.		Room mode" and "Room r	mode status" should be added.
Block setpoint	yes	I I	The value transferred with	this object is used to set the
adjustment	no	r	oom mode and to report	the current room mode. The
This parameter blocks po	minal value adjustment by the	f	ollowing classifications ap	oply to this:
	ininal value aujustitient by the	() = Automatic mode	
user.	0	1	1 = Comfort mode	
Number of window	0	2	2 = Pre-comfort mode	
contacts	1	-	3 = Economy mode	
	2	4	4 = Protection mode.	
	3	E	Before switching from "m	anual mode" to a specific
	4	C	operating mode via this of	pject the "automatic mode" has
This parameter specifies h	ow many windows and doors	t	to be activated with the va	alue "O".
with a window contact the	e room contains. The relevant	8	3-bit object controller	yes
number of "Window x" con	nmunication objects, whose	5	status (Eberle)	no
status is linked logically in	the controller via an OR	1	This specifies whether t	he "Controller status (Eberle)"
feature, is then added.		c	communication object sh	nould be added. You use this
Invert window contacts	yes	C	object to report the cont	troller status and room mode.
	no	1	The following classification	ns apply to this:
This parameter inverts the	window object value (applies	E	Bit 0: 1 = Comfort mode 0	N
to all window contacts to	nether).	E	Bit 1: 1 = Pre-comfort mod	le ON
Peostion upon on onon	at onco	E	Bit 2: 1 = Economy mode (ON
Reaction upon an open	at once	E	Bit 3: 1 = Protection mode	ON
window	after 30 seconds	E	Bit 4: 1 = Dewpoint alarm	
	after 60 seconds	E	Bit 5: 1 = Heating mode, 0	= Cooling mode
This parameter specifies the	time for analyzing the window	E	Bit 6: 1 = Controller On, 0	= Controller Off
status The "Window open"	state means that the nominal	E	Bit 7: 1 = Frost/Heating alarr	m ON (based on value from bit 5)
room temperature value, d	epending on the setting, is set	1	16-bit object controller	yes
either immediately or only	after 15 seconds or after 30	5	status (RHCC)	no
seconds or after 60 second	s to the frost protection value in	1	This specifies whether the "	16-bit controller status"
heating mode and in coolin	g mode to the heating	c	communication object shou	Ild be added. With this object the
protection value and protect	ction mode is activated.	C	control and room mode car	be set respectively their status
Setting a delay time means	that not every brief opening of	c	can be reported. The follow	ving classifications apply to
the window leads immedia	tely to a change to protection	t	:his:	
mode.		E	Bit 0: $1 = no error, 0 = error$	ror
8-bit objects room	yes	E	Bit 8: 1 = heating mode,	0 = cooling mode
mode/room mode	no	E	Bit 12: 1 = dewpoint alarm	1
status		E	3it 13: 1 = frost alarm	
		E	Bit 14: 1 = heating alarm	
		ר	The Bits: 1, 2, 3, 4, 5, 6, 7	, 9, 10, 11 and 15 are set to the
		١	/alue = 0.	
		9	Setpoint adjustment at	direct in °C/°F
		6	display	via setpoint shifting
			This parameter specifies	whether the nominal room
		t	emperature control value	e should be adjustable in °C/°F
		Ċ	directly on the controller	or whether the basic nominal
		, i i i i i i i i i i i i i i i i i i i	value for the comfort t	emperature on the controller
		9	should be set movably to a	a lower or higher value.

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting		
Range for setpoint	±1.0 K		
shifting	±1.2 K		
-	±1.5 K		
	±2.0 K		
	±3.0 K		
	±4.0 K		
	±5.0 K		
This parameter specifies by how many degrees Kelvin the basic nominal value can be shifted to a higher or lower temperature.			
This parameter is only displayed if the nominal value setting is specified as "via nominal value shift".			

9.7.2 Operating mode parameters, control

General				
Display	Operating mode of controller	heating and cooling		
Behaviour after bus voltage recovery	Control value output	to separate objects		
Info area (Line 1)				
1st. function	Controller mode heating	PI-control		
2nd. function				
3rd. function	Controller mode cooling	PI-control •		
4th. function	Switch between besting and cooling			
5th. function	Switch between heating and cooling	automatic		
6th. function				
7th. function	Dead zone between beating und cooling			
8th. function	Dead zone between nearing and cooling	12.00 K		
Alarm - General				
Alarm 1				
Controller - General				
Operating mode, controller				
Operating mode, room				
Frost/heat alarm				
Temperature, actual value				
Temperature, setpoint values				
Heating, PI-control				
Heating, valve				
Cooling, PI-control				
Cooling, valve				
Fan				

Parameter	Setting
Operating mode of controller	Heating and cooling Heating Cooling

Parameter	Setting
This specifies whether the room can be heated and/ cooled. This parameter is only displayed if the devic	
feature is set to "Operati	ng device/Controller".

Engineering Manual

Update: http://www.siemens.de/gamma

 $\ensuremath{\textcircled{}}$ Siemens AG 2013 We reserve the right to make changes without notice

Parameter	Setting	Parameter	Setting
Control value output	to common object	The "Automatic" settin	ng sends the heating or cooling
This parameter specifies is output to one commo This parameter is only o set to "Operating device This parameter is only v parameter is set to "Hea	to separate objects whether the control parameter on or two separate objects. displayed if the device feature is controller". isible if the "Controller mode" ting and cooling".	The setting "Via objective switch between heat bus. In 2-conductor system between heating and of This parameter is only	s. ct 117 – Heating/Cooling" must ing and cooling modes via the s, this object changes the control cooling modes via the bus. displayed if the device feature is solventoller"
Controller mode	Two level control	This parameter is only	visible if the "Controller mode"
This specifies how the h controlled. This parameter is only o set to "Operating device This parameter is only v	leating/cooling is to be displayed if the device feature is c/Controller". isible if the "Controller mode"	parameter is set to "He "Control value output" objects". At the setting Control heating or cooling mod object 117.	ating and cooling" and the parameter is set to "to separate value output "on joint object" the de must generally be preset via
Controller mode	Two level control	Dead zone between	±1,0 K
heating	PI control	heating and cooling	±1,5 K +2 0 K
This specifies how the heating is to be controlled. This parameter is only displayed if the device feature is			±2,5 K ±3,0 K
This parameter is only v parameter is set to "Hea "Control value output" p objects". This parameter is only v parameter is set to "Hea	isible if the "Controller mode" ting and cooling" and the parameter is set to "to separate isible if the "Controller mode" ting".	This parameter specific heating and cooling. The dead zone should to avoid that an oversh cause a switch of the c Otherwise the actual v deviate from the nomi	es the dead zone between be chosen big enough in order noot of the controller does not ontroller operating mode. alue of room temperature can nal value for comfort mode up
Controller mode	Two level control PI control	(heating) or down (coo	bling) about maximum half the
This specifies how the c This parameter is only c set to "Operating device This parameter is only v parameter is set to "Hea "Control value output" p objects". This parameter is only v parameter is set to "Cool Switch between Heating and Cooling	ooling is to be controlled. displayed if the device feature is e/Controller". isible if the "Controller mode" ting and cooling" and the parameter is set to "to separate isible if the "Controller mode" ling". automatic	equivalently higher at comfort mode, Econor This parameter is only set to "Operating device This parameter is only to "Operating device/C This parameter is only parameter is set to "He "Control value output" objects"and the "Switc parameter is set to "au	the other operation modes (pre- ny mode and heat/frost alarm). displayed if the device feature is e/Controller". visible if the device feature is set ontroller". visible if the "Controller mode" ating and cooling" and the parameter is set to "to separate h between Heating/Cooling" tomatic".
nearing and Cooling	Heating/Cooling		

April 2013

07B0 CO Room Control Unit 970101

9.7.3 Operating mode parameter, room

General	Room modes	
Display	Room modes	comfort/pre-comfort/economy/protection mode
Behaviour after bus voltage recovery	Duration for extended comfort mode	disabled
Info area (Line 1)		
1st. function	Status object for extended comfort mode	no
2nd. function		
3rd. function	Automatic mode control via	internal scheduler 🔹
4th. function		
5th. function		
6th. function		
7th. function		
8th. function		
Alarm - General		
Alarm 1		
Controller - General		
Operating mode, controller		
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, PI-control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

Parameter	Setting
Room modes	Comfort/protection mode Comfort/Economy/Protection mode Comfort/Pre- comfort/Economy/Protection mode
This parameter specifies between which room modes there should be a distinction for room temperature control.	
Duration for extended comfort mode	disabled 10 minutes 15 minutes 20 minutes 30 minutes 45 minutes 60 minutes 90 minutes 120 minutes 240 minutes

Parameter	Setting	
The comfort extension duration equals the value chosen here. If "Pre-comfort mode", "Economy mode" or "Protection mode" is activated and comfort extension is then activated at the room controller, then the time set here is switched from the "Pre-comfort mode", "Economy mode" or "Protection mode" into "Comfort mode".		
Status object for yes extended comfort no mode		
This specifies whether the "Comfort extension status" communication object should be added. This object reports that the controller is in comfort extension.		
Automatic modeinternal schedulercontrol viabus telegrams		
This parameter specifies how automatic mode is set and in this the room modes. Commands from the other controller in each case are then ignored.		

Engineering Manual

97010, 102 pages

 $\ensuremath{\textcircled{}}$ Siemens AG 2013 We reserve the right to make changes without notice

SIEMENS

April 2013

07B0 CO Room Control Unit 970101

9.7.4 Frost/Heating alarm parameter

General	Threshold for frost alarm	F 0.90 / 41 F
Display		5.0 °C / 41 P
Behaviour after bus voltage recovery	Threshold for heating alarm	40 °C / 104 F
Info area (Line 1)		
1st. function	Cycle time for sending heat/frost alarm	5 minutes 🔹
2nd. function		
3rd. function		
4th. function		
5th. function		
6th. function		
7th. function		
8th. function		
Alarm - General		
Alarm 1		
Controller - General		
Operating mode, controller		
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, PI-control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

Parameter	Setting
Threshold for frost	Not valid
alarm	0.0 °C
	0.5 °C
	1.0 °C
	1.5 °C
	2.0 °C
	2.5 °C
	3.0 °C
	3.5 ℃
	4.5 °C
	5.0 ℃
This parameter sets a threshold for a frost protection alarm. A corresponding alarm object is sent.	

Parameter	Setting
Threshold for	Not valid
heating alarm	35°C
	36°C
	37°C
	38°C
	39°C
	40°C
	41°C
	42°C
	43°C
	44°C
	45°C
This parameter sets a threshold for a heat alarm. A corresponding alarm object is sent.	
Cycle time for sending heat/frost alarm	5 ; 6; 7; 8; 9; 10 ; 12; 15; 17; 20; 25; 30; 40; 50; 60; 90; 120 minutes; disabled

97010, 102 pages

Engineering Manual

Update: http://www.siemens.de/gamma

 $\ensuremath{\mathbb{C}}$ Siemens AG 2013 We reserve the right to make changes without notice

April 2013

07B0 CO Room Control Unit 970101

Parameter

Setting

In this case, the send interval time for sending frost and heat alarms is set jointly. In addition to automatic sending on changing, this sends the "Frost alarm" and "Heat alarm" object cyclically e.g. every 10 minutes.

9.7.5 Temperature parameter, actual value

General	Internal sensor	
Display	offset to measured value	no offset
Behaviour after bus voltage recovery	External temperature concer	
Info area (Line 1)	External temperature sensor	yes 🔹
1st. function	Cycle time for polling of	5 minutes
2nd. function	external temperature sensor	
3rd. function	External sensor,	no offset
4th. function	offset to measured value	
5th. function	External / internal weighting	only internal sensor
6th. function		
7th. function	Change of actual temperature value	disabled 🔹
8th. function	for automatic sending	
Alarm - General	Cycle time for automatic sending	disabled 🔹
Alarm 1	of the actual temperature value	
Controller - General	Hysteresis for actual temperature	±0.1 K 🔹
Operating mode, controller		
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, PI-control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

Parameter	Setting
Internal sensor, offset to measured value	No offset Min10.0K Max: +10.0K
You use the offset to compensate the measured value computed by the internal sensor for environmental factors (e.g. a cold wall).	
External temperatureyessensorno	
This specifies whether the room temperature is also measured at another point in the room. If this object is set to "Yes", then the communication object "Temperature, actual value external sensor" is complemented.	

Parameter	Setting
Cycle time for polling	5 minutes
of external	10 minutes
temperature sensor	15 minutes
	20 minutes
	25 minutes
	30 minutes
	40 minutes
	50 minutes
	60 minutes
	90 minutes
	120 minutes
	disabled
This specifies the time interval in which the external measured value should be polled.	

Engineering Manual

97010, 102 pages

Parameter	Setting
External sensor,	No offset
offset to measured	Min10.0K
value	Max: +10.0K
You use the offset to co	mpensate the measured value
received by the external	sensor for environmental
factors (e.g. a cold wall)	•
External/internal	only external sensor
weighting	90%/10%
	80%/20%
	60%/40%
	50%/50%
	40%/60%
	30%/70%
	20%/80%
	10%/90%
	only internal sensor
This parameter specifies in what ratio (weighting) the	
measured values from the	ne external and internal sensors
are used to compute the	e current actual value. The first
value corresponds to the	e external sensor weighting.
The weighted value is us	sed internal for the regulation
and for the frost of heat	
Change of actual	
temperature value	0.2 K
sending	0.5 K
Schung	0.5 K
	0.6 K
	0.7 К
	0.8 К
	0.9 К
	1.0 K
	1.2 K
	1.5 K
	1.0 N
	2.0 N 2.5 K
	3.0 K
	3.5 K
	4.0 K
	4.5 K
	5.0 K
	disabled
This specifies by how much the actual value should	
have changed for it to be resent automatically.	

Parameter	Setting
Cycle time for	5 minutes
automatic sending of	10 minutes
the actual	15 minutes
temperature value	20 minutes
	25 minutes
	30 minutes
	40 minutes
	50 minutes
	60 minutes
	90 minutes
	120 minutes
This specifies the time in	nterval at the end of which the
actual value, as well as a	automatic sending on change,
should be resent.	
Hysteresis for actual	±0.0K
temperature	±0.1K
	±0.2K
	±0.3K
	±U.4K
	±0.5K
	±0.7K
This parameter can spec	ify a hysteresis. This prevents
This parameter can spec minor temperature fluct	ify a hysteresis. This prevents uations constantly delivering
This parameter can spec minor temperature fluct new actual values.	ify a hysteresis. This prevents uations constantly delivering
This parameter can spec minor temperature fluct new actual values.	ify a hysteresis. This prevents cuations constantly delivering
This parameter can spec minor temperature fluct new actual values.	ify a hysteresis. This prevents cuations constantly delivering

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

9.7.6 Temperature parameter, setpoint values

General	Decrease pre-comfort model heating	
Display	Decrease pre-connort model mesoning	2 K •
Behaviour after bus voltage recovery	Decrease economy mode heating	4 K 🔹
Info area (Line 1)		
1st. function	Increase pre-comfort mode cooling	2 K •
2nd. function		
3rd. function	Increase economy mode cooling	4 K 🔹
4th. function	Catagint frost protection for booting	
5th. function	Serpoint most protection for nearing	/°C / 44.6 F
6th. function	Setpoint heat protection for cooling	35 °C / 95 F
7th. function		
8th. function	Track setpoint for cooling	no 🔹
Alarm - General	dependent on outside temperature	
Alarm 1		
Controller - General		
Operating mode, controller		
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, PI-control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

Parameter	Setting	
Decrease pre-comfort mode heating	2K 3K 4K	
This parameter is only visible if the controller can activate 4 room modes. This parameter sets the value by which the nominal room temperature value is to be reduced, if there is a switch in heating mode from "Comfort mode" to "Pre- comfort mode".		
Decrease economy mode heating	2K 3K 4K 5K 6K	

Parameter	Setting
This parameter is only activate 3 or 4 room mo	visible if the controller can des.
This parameter sets the value by which the nominal room temperature value is to be reduced, compared with the nominal value in "Comfort mode" if a switch is made to "Economy mode".	
Increase pre-comfort mode cooling	2K 3K 4K
This parameter is only visible if the controller can activate 4 room modes. This parameter sets the value by which the nominal room temperature value is to be increased, if there is a switch in cooling mode from "Comfort mode" to "Pre- comfort mode".	

Engineering Manual

Parameter	Setting	
Increase economy mode cooling	2K 3K 4K 5K 6K	
This parameter is only visible if the controller can activate 3 or 4 room modes. This parameter sets the value by which the nominal room temperature value is to be increased, compared with the nominal value in "Comfort mode" if a switch is made to "Economy mode".		
Setpoint frost protection for heating	5°C; 6°C; 7°C; 8°C; 9°C; 10°C	
This parameter specifies the nominal value for frost protection mode. Frost protection mode is activated, for example, if the status "Window open" is received and the controller is in heating mode.		
Setpoint heat protection for cooling	30°C; 31°C; 32°C; 33°C; 34°C; 35°C ; 36°C; 37°C; 38°C; 39°C; 40°C	

Parameter	Setting	
This parameter specifies the nominal value for "heat protection" mode. Heating protection mode is activated, for example, if the status "Window open" is received and the controller is in cooling mode.		
Track setpoint for	no	
cooling dependent on outside temperature	yes	
This specifies whether the nominal temperature will be tracked if the outside temperature falls. If "Yes" is selected, the outside temperature object is created and the received nominal outside temperature tracked, if this is above 26°C and 6K above the pre-selected nominal comfort temperature. In this case, the new nominal temperature is always about 6K below the outside temperature.		

April 2013

07B0 CO Room Control Unit 970101

9.7.7 Heating parameter, two level control

Note:

Parameter and feature of the "Cooling, Two level control" parameter window are the same as those for this parameter window.

General	Hysterasis	
Display	riyatercala	±0.2 K
Behaviour after bus voltage recovery	Double hysteresis in economy/	ves
Info area (Line 1)	protection mode	,
1st. function	Cycle time, 2 level control	2 minutes
2nd. function		
3rd. function		
4th. function		
5th. function		
6th. function		
7th. function		
8th. function		
Alarm - General		
Alarm 1		
Controller - General		
Operating mode, controller		
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, 2 level control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

Parameter	Setting
Hysteresis	±0.2K
-	±0.3K
	±0.4K
	±0.5K
	±0.6K
	±0.7K
	±1.0K
In this case, the switching hysteresis of the two level controller is set for heating/cooling mode. The smaller	

controller is set for heating/cooling mode. The smaller the hysteresis is, the more precise must be compliance with the nominal room temperature value, and the switching frequency of the controller increased. This parameter is only displayed if the device feature is set to "Operating device/Controller".

The parameter "Controller mode heating"/"Controller

mode cooling" has the "Two level control" setting.

mode	
economy/protection	yes
Double hysteresis in	10

Parameter	Setting
With this, you can set that in Economy or frost protection mode, fluctuations (hysteresis) in room temperature of twice the size are allowed, in order to save additional heating/cooling energy or lower the frequency of operation. This parameter is only displayed if the device feature is set to "Operating device/Controller". The parameter "Controller mode heating"/"Controller mode cooling" has the "Two level control" setting.	
Parameter	Setting
Cycle time, two level control	0.5; 1; 2 ; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 minutes

Engineering Manual

97010, 102 pages

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting
This specifies the time interval, after which the valves are switched in a minimum time frame. If the nominal value e.g. is already reached after 2 minutes although 5 minutes are configured, the valve remains on until the end of the 5 minutes.	
This parameter prevents an increased abrasion of thermo valves.	
This parameter is only d set to "Operating device	isplayed if the device feature is /Controller".
The parameter "Controller mode heating"/"Controller mode cooling" has the "Two level control" setting.	

9.7.8 Heating parameter, PI control

Note:

Parameter and feature of the "Cooling, PI control" parameter window are the same as those for this parameter window.

General		
Display	Proportional range	3.0 K
Behaviour after bus voltage recovery	Integration time	30 minutes
Info area (Line 1)		Co minutes
1st. function		
2nd. function		
3rd. function		
4th. function		
5th. function		
6th. function		
7th. function		
8th. function		
Alarm - General		
Alarm 1		
Controller - General		
Operating mode, controller		
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, PI-control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

97010, 102 Seiten

Engineering Manual Update: http://www.siemens.de/gamma

SIEMENS

07B0 CO Room Control Unit 970101

Parameter	Setting		
Proportional range	1.0K; 1.1K; 1.2K; 1.3K;		Integration
	1.4K; 1.5K; 1.6K; 1.7K;		
	1.8K; 2.0K; 2.2K; 2.5K;		This param
	3.0K ; 3.5K; 4.0K ;		component
	4.5K; 5.0K; 6.0K; 7.0K; 8.0K;		30 minutes
	9.0K; 10K		component
This parameter sets the proportional range of the PI			Small devia
controller for heating/cooling mode. A proportional			nominal ter
range of 3K means that a control deviation between			and lead to
actual value and nominal value of 3K results in an			This param
actuator parameter ch	ange of 100%.		set to "Ope
This parameter is only displayed if the device feature is			The parame
set to "Operating device/Controller".			mode cooli
The parameter "Controller mode heating"/"Controller			
mode cooling" has the "PI control" setting.			

Integration time	5; 10; 15; 20; 25; 30; 40; 50; 60; 90; 120 minutes		
This parameter specifies component) for heating, 30 minutes means that y component equals the P Small deviations of the a nominal temperature ind and lead to adjustments This parameter is only d set to "Operating device.	the PI controller reset time (I- /cooling mode. A reset time of within this time the I- -component. Inctual temperature to the crease during operation time of the valve. isplayed if the device feature is /Controller".		
The parameter "Controller mode heating"/"Controller mode cooling" has the "PI control" setting.			

97010, 102 pages

9.7.9 Heating parameter, Valve (two level ontrol)

Note:

Parameter and feature of the "Cooling, Valve (Two level control)" parameter window are the same as those for this parameter window.

General	Type of control value output	switching (1-hit)
Display		switching (1 bic)
Behaviour after bus voltage recovery		
Info area (Line 1)	Direction of the control value	normal
1st. function		
2nd. function	Sending of 1-bit control value	only if changed 🔹
3rd. function		
4th. function		
5th. function		
6th. function		
7th. function		
8th. function		
Alarm - General		
Alarm 1		
Controller - General		
Operating mode, controller		
Operating mode, room		
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values		
Heating, 2 level control		
Heating, valve		
Cooling, PI-control		
Cooling, valve		
Fan		

Parameter	Setting	
Type of control value output	switching (1 bit)	
The parameter output is implemented via a 1-bit object. This is an information bit. This parameter is only displayed if the device feature is set to "Operating device/Controller". The parameter "Controller mode heating"/"Controller mode cooling" has the "Two level control" setting.		
Direction of the normal control value inverted		



97010, 102 Seiten

Engineering Manual

April 2013

07B0 CO Room Control Unit 970101

Parameter

In this case, you set by how much the control parameter must have changed for it to be resent automatically or whether the control parameter is only sent cyclically.

Setting

This parameter is only displayed if the device feature is set to "Operating device/Controller".

The parameter "Controller mode heating"/"Controller mode cooling" has the "Two level control" setting.

9.7.10 Heating parameter, Valve (Pl control)

Note:

Parameter and feature of the "Cooling, Valve (Pl control)" parameter window are the same as those for this parameter window.

Repeat control value	1; 2; 3; 4; 5; 6; 7; 8; 9;10; 12;
after	15 ; 20; 25; 30 minutes
This specifies the time in	terval at the and of which the

This specifies the time interval at the end of which the heating or cooling control parameter should be resent. This parameter is only displayed if the device feature is set to "Operating device/Controller". The parameter "Controller mode heating"/"Controller mode cooling" has the "Two level control" setting.

General	Coguenco control	
Display	Sequence control	
Behaviour after bus voltage recovery	Sequence 2 starts from [in %]	50
Info area (Line 1)		
1st. function		
2nd. function	Sequence 1	
3rd. function	Turna of control value output	
4th. function	Type of control value output	continuous (8-bit)
5th. function	Maximum control value	100%
6th. function		
7th. function	Minimum control value	0%
8th. function		
Alarm - General	Scaling of control value (limited control value x % value/100)	+100 % (normal) •
Alarm 1	(
Controller - General	Change of control value for automatic sending	10% •
Operating mode, controller	Schung	
Operating mode, room	Cycle time for cyclical sending of the control value	5 minutes 🔹
Frost/heat alarm		
Temperature, actual value		
Temperature, setpoint values	Sequence 2	
Heating, PI-control	Type of control value output	continuous (8-bit)
Heating, valve	Channel of another land to find a strength	
Cooling, PI-control	sending	10%
Cooling, valve		
Fan	Cycle time for automatic sending	5 minutes 🔹

Update: http://www.siemens.de/gamma

SIEMENS

07B0 CO Room Control Unit 970101

-	- ···				
Parameter	Setting	Parameter	Setting		
Sequence control	without sequence control	This parameter is	only visible if the type of Contro		
	with sequence control	This specifies from	which perceptage of the computed		
Here, you set whether a	sequential control (sequence 1	control parameter i	ts output is always at "ON". In order		
and sequence 2 control	parameters) is to act.	to reduce the switc	hing frequency the valve		
This parameter is only o	displayed if the device feature is	characteristics can	be adapted for this purpose.		
set to "Operating device	e/Controller".	This parameter is o	nly displayed if the device feature is		
The parameter "Control	ler mode heating"/"Controller	set to "Operating de	evice/Controller".		
mode cooling has the	Picontrol setting.	The parameter "Cor	ntroller mode heating"/"Controller		
Type of control value	continuous (8-bit)	mode cooling" has	the "PI control" setting.		
output	switching (I-bit)	Valve always close	d, 1% ; 3%; 5%; 7%; 10%; 15%;		
This parameter sets where the sets w	nether the control parameter is	if positioning valu	e is 20%; 25%; 30%; 35%; 40%;		
output via a 1-bit (P	WM) or an 8-bit object. This	below [in %]	45%; 50%		
to "Operating device/Co	ntroller"	This parameter is	only visible if the type of Contro		
The "Controller mode by	ating" narameter/"Controller	value output was se	et to switching (1 bit).		
mode cooling" paramete	er has the "Pl control" setting	This specifies up to	which percentage of the control		
Direction of the	normal	parameter its outpu	it is always at "OFF". In order to		
control value	inverted	reduce the switchin	g frequency, the valve		
This parameter is only	visible if the type of Control	Characteristics can i	characteristics can be adapted for this purpose.		
value output was set to	switching (1 hit PWM)	set to "Operating device/Controller"			
This parameter specifie	es in which form the actuator	The parameter "Cor	troller mode heating"/"Controller		
parameter should be o	output. In "normal" setting, the	mode cooling" has	the "PI control" setting.		
actuator parameter i	is output according to the	Pulse with	1: 2: 3: 4: 5: 6: 7: 8: 9 :10: 12:		
computed actuator pa	arameter. With the "inverted"	modulation period	15; 20; 25; 30 minutes		
setting, the actuator pa	rameter sense is reversed.	time			
normal					
inverted 0					
■ y ■ T	۲ 				
T: Periodic duration of t	he Control value output				
y: Computed control pa	rameter				
The setting for this para	meter is dependent on the				
valve type used (whether open or closed when no					
flow) and the actuator.					
This parameter is only displayed if the device feature is					
set to Operating device/Controller.					
mode cooling" has the "	Pl control" setting				
Valve always open	40%· 50%· 60%· 65%· 70%·				
if positioning value is	75% 80% 85% 90% 95%				
above [in %]	98%: 100%				
	,,				

2 4 2 4 6 4 10 4

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting		Parameter	Setting	
This parameter is only visible if the type of Control			This parameter is only	visible if the type of Control	
value output was set to switching (1 bit).			value output was set to continuous (8-bit).		
This parameter specifies the pulse width modulation			This parameter can set a lower threshold for the		
period for the switching Control value output in			computed heating or cooling control parameter. Below		
heating mode. The con	itrol parameter also equals the		this value, the minimum control parameter remains.		
button ratio (time ratio	b) between "ON (1)" and "OFF		This parameter is only displayed if the device feature is		
(0)" within a period.			set to "Operating device/Controller".		
1 for a (2 10)			The parameter "Controller mode heating"/"Controller		
Heating (normal")			mode cooling" has the "	PI control" setting.	
On Off	1		Scaling of control	+1%+95%;	
	1		value (limited control	+100% (normal);	
v>i	$\frac{1}{1} \rightarrow t$		value x % value/100)	-1%95%;	
► T	→ 			-100% (inverted)	
y: Control parameter in	n % of periodic duration		This parameter is only	visible if the type of Control	
I: Periodic duration of	the Control value output		value output was set to	continuous (8-bit).	
Note: With thermo-driv	ves, you should note that the		This parameter specifie	es in which form the actuator	
period is not chosen to	be less than the sum of the		parameter should be	output. In the setting "100%	
thermo-drive heating up	and cooling down times.		(normal)", the controller	r assumes that the valve is open	
This parameter is only d	lisplayed if the device feature is		with a control parameter of +100%. However, if the		
set to "Operating device	/Controller".		valve is closed, say at 100%, the control parameter		
The parameter "Controll	er mode heating"/"Controller		action must be the opposite (inverted).		
mode cooling" has the "l	Pl control [®] setting.		Reducing the percent	age achieves a compression	
Maximum control	0%; 1%; 2%; 3%; 4%; 5%;		(scaling) of the control p	barameter.	
value	7%; 10%; 15%; 20%; 25%;		The setting is dependent on the type of valve or actuator used. This parameter is only displayed if the device feature is		
	30%; 35%; 40%; 45%; 50%;				
	55%; 60%; 65%; 70%; 75%;				
	80%; 85%; 90%; 95%;		set to Operating device	/Controller.	
This parameter is only	visible if the type of Centrel		mode cooling" has the "PI control" setting		
value output was set to	continuous (8-bit)			$104 \cdot 204 \cdot 204 \cdot 404 \cdot 504 \cdot 704 \cdot 1004 \cdot$	
This parameter can set a	an upper threshold for the		Change of control	1 %; 2 %; 3%; 4%; 5%; 7%; 10%; 15%: 20%: 25%: 30%: 35%;	
computed heating or co	oling control parameter		value for automatic	40%· 45%· 50%·	
Starting from this value	the Control value output is set		senuing		
to 100%.	the control value output is set		This parameter is only visible if the type of Control		
This parameter is only d	lisplayed if the device feature is		This parameter specifies from which control parameter		
set to "Operating device	/Controller".		change the beating or cooling control parameter		
The parameter "Controll	er mode heating"/"Controller		should be sent automatically		
mode cooling" has the "PI control" setting.			This parameter is only displayed if the device feature is		
Minimum control	0% ; 1%; 2%; 3%; 4%; 5%; 7%;		set to "Operating device/Controller".		
value	10%; 15%; 20%; 25%; 30%;		The parameter "Controll	er mode heating"/"Controller	
	35%; 40%; 45%; 50%; 55%;		mode cooling" has the "	Pl control" setting.	
	60%; 65%; 70%; 75%; 80%;		Cycle time for cyclical	N/A; 5 ; 6; 7; 8; 9; 10; 12: 15:	
	85%; 90%; 95%; 100%		sending of the	17; 20; 25; 30; 40; 50; 60; 90;	
			control value	120 minutes	

Engineering Manual

909510, 102 pages

Parameter	Setting		Parameter		
This parameter is only		This parameter			
value output was set to	continuous (8-bit).		value output was		
This specifies the time in	iterval at the end of which the		This parameter		
automatic conding on ch	or parameter, as well as		actuator param		
This parameter is only d	isplayed if the device feature is		computed actua		
set to "Operating device	/Controller".		setting, the actua		
The parameter "Controll	er mode heating"/"Controller		11		
mode cooling" has the "	Pl control" setting.		normal		
Value of the	595		0		
controller control	50		inverted		
parameter with			∢ y.		
which sequence 2			T. Periodic durati		
begins [in %]		v: Computed cor			
This parameter specifies	from which computed heating		The setting for th		
or cooling controller out	or cooling controller output control parameter				
This parameter is only d		flow) and the act			
set to "Operating device		This parameter is			
The parameter "Controll		set to "Operating			
mode cooling" has the "	Pl control" "with sequence		The parameter "C		
control" setting.			mode cooling" h		
			control" setting.		
			Valve always op		

Sequence 1

Parameter Setting		
Type of control value output	continuous (8-bit) switching (1 bit)	
This parameter sets whether for the first valve the control parameter is output via a 1-bit or an 8-bit object. This parameter is only displayed if the device feature is set to "Operating device/Controller". The parameter "Controller mode heating"/"Controller mode cooling" has the "PI control" "with sequence control" setting		
Direction of the normal control value inverted		



Update: http://www.siemens.de/gamma 3.11.1.11/93

April 2013

07B0 CO Room Control Unit 970101

Parameter	Setting		Parameter	Setting	
This parameter is only visible if the type of Control value output was set to switching (1 bit). This specifies up to which percentage of the control parameter its output is always at "OFF". In order to reduce the switching frequency, the valve characteristics can be adapted for this purpose. This parameter is only displayed if the device feature is set to "Operating device/Controller". The parameter "Controller mode heating"/"Controller mode cooling" has the "PI control" "with sequence control" setting.			This parameter is only value output was set to This parameter can set a computed heating or co this value, the minimum the controller is turned parameter 0% is display This parameter is only of set to "Operating device The parameter "Control mode cooling" has the "	visible if the type of Control constant (8-bit). an upper threshold for the poling control parameter. Below n control parameter remains. If off, the minimum control ed. displayed if the device feature is e/Controller". ler mode heating"/"Controller PI control" "with sequence	
Pulse with	1; 2; 3; 4; 5; 6; 7; 8; 9 ;10; 12;		control" setting.		
modulation period time This parameter is only value output was set to This parameter specific	15; 20; 25; 30 minutes visible if the type of Control switching (1 bit).		Minimum control parameter	0% ; 1%; 2%; 3%; 4%; 5%; 7%; 10%; 15%; 20%; 25%; 30%; 35%; 40%; 45%; 50%; 55%; 60%; 65%; 70%; 75%; 80%; 85%; 90%; 95%; 100%;	
period for the switch	ning Control value output in		This parameter is only	visible if the type of Control	
heating/cooling mode.	The control parameter also		value output was set to	constant (8-bit).	
equals the button ratio	(time ratio) between "ON (1)"		This parameter can set a lower threshold for the computed heating or cooling control parameter.		
and "OFF (0)" within a p	eriod.				
Heating ("normal")			Starting from this value	, the Control value output is set	
			to 0%.		
On Off			This parameter is only o	displayed if the device feature is	
			The parameter "Controller mode heating"/"Controller mode cooling" has the "Pl control" with sequence		
→ y → t t					
v: Control parameter i	n % of periodic duration		control" setting.	ar control ""with sequence	
T: Periodic duration of	the Control value output		Scaling of control	+1% +95%	
Note: With thermo-driv	ves, you should note that the		value (limited control	+100% (normal);	
period is not chosen t	o be less than the sum of the		value x % value/100)	-1%95%;	
thermo-drive heating up	o and cooling down times.		·	-100% (inverted)	
This parameter is only o	displayed if the device feature is				
set to "Operating device	/Controller".				
The parameter "Control	ler mode heating"/"Controller				
mode cooling" has the "	Pl control [®] "with sequence				
Parameter	Satting				
raidilleter		4			
Maximum control	0%, 1%; 2%; 3%; 4%; 5%; 7%· 10%· 15%· 20%· 25%·				
parameter	30% 35% 40% 45% 50%				
	55%: 60%: 65%: 70%: 75%:				
	80%; 85%; 90%; 95%;				
	100% ;				

Engineering Manual

909510, 102 pages

© Siemens AG 2011 We reserve the right to make changes without notice

Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg

Parameter Setting					
This parameter is only	visible if the type of Control				
value output was set to	constant (8-bit).				
This parameter specifie	s in which form the actuator				
parameter should be	output. In the setting "100%				
(normal)", the controller	assumes that the valve is open				
with a control paramet	er of +100%. However, if the				
valve is closed, say at	100%, the control parameter				
action must be the oppo	osite (inverted).				
Reducing the percent	age achieves a compression				
(scaling) of the control p	barameter.				
The setting is depend	ent on the type of valve or				
actuator used.					
This parameter is only d	isplayed if the device feature is				
set to "Operating device	Controller".				
The parameter "Controll	er mode heating"/"Controller				
mode cooling" has the "I	Pl control [®] "with sequence				
control" setting.	101 201 201 401 501 701 4001				
Change of control	1%; 2%; 3%; 4%; 5%; 7%; 10%;				
value for automatic	15%; 20%; 25%; 30%; 35%;				
sending	40%; 45%; 50%;				
This parameter is only	visible if the type of Control				
value output was set to	constant (8-bit).				
This parameter specifies	from which control parameter				
change the heating o	or cooling control parameter				
should be sent automati	cally.				
This parameter is only d	isplayed if the device feature is				
set to "Operating device	Controller".				
The parameter "Control	er mode heating / Controller				
mode cooling has the "I	Pi control "with sequence				
Cycle time for cyclical	N/A; 5 ; 6; 7; 8; 9; 10; 12; 15;				
sending of the	17; 20; 25; 30; 40; 50; 60; 90; 120 minutes				
This parameter is only visible if the type of Control					
value output was set to constant (8-bit).					
This specifies the time interval at the end of which the					
heating or cooling control parameter, as well as					
automatic sending on change, should be resent.					
This parameter is only displayed if the device feature is					
The parameter Control	controller.				
meda cooling" has the	er mode realing / Controller				
mode cooling has the "I	Pricontrol "with sequence				
control" setting.					

Sequence 2

Parameter	Setting					
Type of control value output	continuous (8-bit)					
The parameter output is object.	implemented via an 8-bit					
This is an information bi	t.					
This parameter is only d set to "Operating device	isplayed if the device feature is /Controller".					
The parameter "Controll mode cooling" has the "I	er mode heating"/"Controller Pl control" "with sequence					
Change of control	1%· 2 %· 3%· 4%· 5%· 7%· 10%·					
value for automatic sending	15%; 20%; 25%; 30%; 35%; 40%; 45%; 50%;					
This parameter specifies	from which control parameter					
change the heating or the second valve should	cooling control parameter for					
This parameter is only d	isplayed if the device feature is					
set to "Operating device	/Controller".					
The parameter "Controll	er mode heating"/"Controller					
mode cooling has the "i	Pl control ", with sequence					
Cycle time for cyclical	N/A; 5 ; 6; 7; 8; 9; 10; 12; 15;					
sending of the	17; 20; 25; 30; 40; 50; 60; 90;					
control value	120 minutes					
This specifies the time in	This specifies the time interval at the end of which the					
heating or cooling control parameter, as well as						
This parameter is only displayed if the device feature is						
set to "Operating device/Controller".						
The parameter "Controll	er mode heating"/"Controller					
mode cooling" has the "I	PI control" "with sequence					
control setting.						

9.7.11 Communication objects room temperature controller

Obj	Object name	Feature	Туре	Flag
102	Temperature, actual value internal sensor (°C)	send	2 bytes	KLÜ

Siemens AG Industry Sector, Building Technology Control Products & Systems PO Box 10 09 53, D-93009 Regensburg 909510, 102 pages

April 2013

07B0 CO Room Control Unit 970101

Obj	Object name	Feature	Туре	Flag	Obj	Object name	Feature	Туре	Flag
This object contains the current temperature actual value, which is measured via the sensor integrated with the controller. A configurable offset corrects the measured value if necessary.					This c perm "Cont This c "Prote	object is available anent protection roller - General" object switches tl ection Mode" (Fr	e only if the paran node" in the pa is set to "Yes". he controller periost/Heat protection	meter "Obje rameter wi manently ir on).	ect ndow nto
103	actual value ext. sensor	receive	2 bytes	KSUA	109	Window 1	0 = open / 1 = close	1 bit	KSÜA
This value,	object contains which is measu	the current to red via an exterr	emperatur al sensor.	e actual	This o windo Gene	bject is available ow contacts" in t ral" is set to "1","	e only if the parai he parameter wii 2", "3" or "4".	meter "Nun ndow "Cont	nber of troller -
104	Temperature, actual value int. + ext.	send	2 bytes	KLÜA	The V 110	Vindow status is Window 2	received via this 0 = open / 1 = close	object. 1 bit	KSÜA
This o of the	sensor (°C) bject contains th controller which	ne current tempe n can contain a v	erature actu veighting.	ual value	This of windo Gene	bject is available ow contacts" in t ral" is set to "2", '	e only if the paran he parameter win "3" or "4". roceived via this	meter "Nun ndow "Cont	nber of troller -
105	outside sensor (°C)	receive	2 bytes	KSUA	111	Window 3	0 = open / 1 = close	1 bit	KSÜA
This object contains the current outside temperature value for the controller. The outside temperature has to be determined via this object so that nominal temperature tracking in cooling mode is possible.				perature e has to nominal	This o windo Gene The V	object is available ow contacts" in t ral" is set to "3" c Vindow status is	e only if the paran he parameter win or "4". received via this	meter "Num ndow "Cont obiect.	nber of troller -
106	Presence	On/Off	1 bit	KSÜA	112	Window 4	0 = open / 1 = close	1 bit	KSÜA
This o Objec set to The Pr	bject is available t" in the paramet "Yes". resence detector	e only if the paran ter window "Con status is receive	meter "Pres troller - Ge d via this o	sence neral" is object. It	This c windo Gene The V	bbject is available ow contacts" in t ral" is set to "4". Vindow status is	e only if the para he parameter win received via this	meter "Nun ndow "Cont object.	nber of troller -
107	Status	On/Off	1 bit	KLÜ	113	Basic setpoint (°C)	receive	2 bytes	KLSÜA
This o object	bject is available	only if the parameters only if the parameters on the parameters of	neter "Stat the parame	us eter	This c via th nomi value	bbject reads the l le bus by means nal value via this	basic nominal val of a telegram. Se object deletes a	ue and cha etting the b shift of noi	nges it asic minal
The co	ontroller reports sion" mode has b	via this object th peen switched or	at "Comfoi or off.	rt	114	Setpoint adjustment (in Kelvin)	send/receive	2 bytes	KLSÜ
108	Permanent protection mode	On/Off	1 bit	KSÜA	This of Kelvin received	bbject sends any n). Simultaneous ved via this object	change to the se ly an adjustment t.	tpoint (in d of setpoin	legrees t can be
					115	Temperature, setpoint value (°C)	send	2 bytes	KLÜ

Engineering Manual

© Siemens AG 2011 We reserve the right to make changes without notice

909510, 102 pages

Obj	Object name	Feature	Туре	Flag	Ob	Ì	Object name	Feature	Туре	Flag
This object contains the current room temperature nominal value, which is computed taking into account the basic nominal value, mode and shift as required.						s c tus nei	bject is available (Eberle)" in th al" is set to "Yes'	e only if the para e parameter win '.	meter "8-b ndow "Cor	it object htroller -
116	Thermostat	On/Off	1 bit	KSÜA	lt i aut	nc :on	ludes the curre natically with sta	nt controller sta tus changes.	atus which	is sent
This object switches the thermostat on and off. If the thermostat is set to "Heating and Cooling", then both thermostat s are switched on and off together.					The individual bits have the following meanings: Bit 0: 1 = Comfort mode ON Bit 1: 1 = Pre-comfort mode ON					
117	Heating/Coolin g (Output)	1 = Heating/0 = Cooling	1 bit	KSUA	Bit	2. 3: ⊿.	1 = Protection m	iode ON		
The object (input) is only available if the parameter "Change between heating/cooling" in the parameter window "Mode, controller" is set to "via object 117 – Heating/Cooling" or the Control value output is executed					Bit Bit Bit bit	4: 5: 6: 7: 5)	1 = Heating mod 1 = Controller Or 1 = Frost/Heating	de, 0 = Cooling m n, 0 = Controller g alarm (dependi	iode Off ing on valu	e from
This o coolin	bject switches th g mode.	ne controller into	heating m	node or	12	2	Controller- Status (RHCC)	16-bit status	2 bytes	KLÜ
The object (output) is only available if the parameter "Change between heating/cooling" in the parameter window "Operating mode, controller" is set to "automatic" and the Control value output is executed on separated objects. The controller sends heating or cooling mode via this object.				eter eter uted on this	Thi obj "Cc It aut The	This object is available only if the parameter "16-bit object controller status (RHCC)" in the parameter window "Controller - General" is set to "Yes". It includes the current controller status which is sent automatically with status changes. The individual bits have the following meanings:				
118	Frost alarm	On/Off	1 bit	KLÜ	Bit	7: 8:	1 = Heating mod	le disabled le, 0 = Cooling m	node	
lf the thresh	measures temp old, "Frost alarm	erature falls bel n = ON" is sent au	ow the fro utomatical	ost alarm ly.	Bit	Bit 12: 1 = Dewpoint alarm				
119	Heat alarm	On/Off	1 bit	KLÜ	Bit	14 14	: 1 = Heat alarm : 1 = Heat alarm	5 6 9 10 and 1	5 are set fir	rmly to
lf the thresh	measured tem old, "Heat alarm	perature exceed = ON" is sent au	ds the he itomaticall	at alarm y.	the No	e va te:	100, 1, 2, 3, 4, 5 alue = 0.	5, 0, 9, 10 and 1	Jale set III	They to
120	Dew point alarm	On/Off	1 bit	KSÜA	Bei 22	nav 10	vior according 1	to KNX manua	l descriptio	on, DPT
In coc sent b	ling mode, this y a dew point m	object receives ionitor. A dew po	a dew poi pint alarm	nt alarm causes a	12 Th	3	Automatic mode	Activate (1)	1 bit	KSÜA
121	Controller- Status (Eberle)	8-bit status	1 bytes	KLÜ	the On val	s o bu re ue	bject switches tr is. ceipt, only the va 0 is not analyzed	alue 1 is analyzed d.	d (automat	on via ic); the
-			-		12	4	Automatic mode status	On/Off	1 bit	KLÜ
					Thi bu:	s o 5.	bject sends the '	'Automatic" roon	n mode via	the

Update: http://www.siemens.de/gamma

April 2013

07B0 CO Room Control Unit 970101

Obj	Object name	Feature	Туре	Flag	Obj	Object name	Feature	Туре	Flag	
125	Comfort	On/Off	1 bit	KLSÜA	This	object is availa	ble only if the	paramete	er "8-bit	
	mode				objects room mode/room mode status" in the parameter					
This o	bject switches th	ne "Comfort" rooi	m mode or	n via the	window "Controller - General" is set to "Yes".					
bus. T	he status is also	sent via the obje	ect.		This of mode	This object reports the current room mode after a room				
126	Pre-comfort	On/Off	1 bit	KLSÜA	trans	ferred value:	bilowing assignin	ients appi	, to the	
	mode				1 = C	omfort mode				
This o	bject is availab	ole only if the	paramete	r "Room	2 = P	re-comfort mode				
"Comf	ort/Pre-comfort/	Economy/Protect	tion mode"	is set to	3 = E	conomy mode				
This o	biect switches th	ne "Pre-comfort"	(standby m	node)	4 = P	rotection mode.	0.10#	4 1.14	1/L Ü	
room	mode on via the	bus. The status	is also sent	via the	131	Heating &	On/Off	I DIT	KLU	
object			-			control value				
127	Economy	On/Off	1 bit	KLSÜA		switching				
	mode				This	object is only ava	ailable if the par	rameter "Co	ontroller	
This c	bject is availal	ole only if the	paramete	r "Room	mode	e" in the parar	neter window	"Operating	mode,	
mode:	s" in the parai	meter window	"Operating	g mode,	contr	oller" is set to	"Heating and	Cooling" a	and the	
mode'	' or to "Comfort/	/Fconomy/Protec	tion mode	"	parar	neter "Control v t" The parame	alue output" is	set to "C	ommon	
This o	biect switches th	ne "Economy" (Ni	iaht mode)	room	coolii	na" is on "Two lev	vel control"	mode ne	aung /	
mode	on via the bus.	The status is also	sent via th	ne	This o	biect then sends	the control para	imeter as a	n	
object					On/O	ff switching com	mand in both he	ating and c	ooling	
128	Protection	On/Off	1 bit	KLSÜA	mode	es.		-	_	
	mode				131	Heating &	0100 %	1 byte	KLÜ	
This o	bject switches	the "Protection	" (standby	/ mode)		Cooling,				
room	mode on or off \	/ia the bus.				control value				
129	Room	14	1 bytes	KSUA	This	object is only av	l ailable if the par	amotor "O	porating	
	operating				mode	of controller" in	the parameter v	window "O	perating	
Thic (hiode	hla only if the	paramot	or "O bit	mode	e, controller" is se	et to "Heating an	d Cooling"	and the	
ohiect	s room mode/ro	om mode status	" parameters" in the na	arameter	parar	neter "Control v	alue output" is	set to "C	Common	
windo	w "Controller - G	General" is set to	"Yes".		objec	t". The parame	eter "Controller	mode he	eating /	
This o	bject changes th	e room mode in	dependent	ly of the	COOlii Thia	ng" is on "PI contr	"Ol".	mataraca		
receiv	ed value. The fo	llowing classifica	tions apply	/:	nerce	object then serius	o the control para	rneter as a	des	
0 = Au	itomatic mode				132	Heating	On/Off	1 hit	KLÜ	
1 = CC 2 - Pr	entori mode				152	control value	onion	1 Dit	KLO	
3 = Ec	onomy mode					switching				
4 = Pro	otection mode.				This	object is only ava	ailable if the par	ameter "O	perating	
lf a tel	egram with a va	lue other than 0	4 or with	i a mode	mode	e of controller" in	the parameter v	window "O	perating	
value	that is not availa	ble at the contro	oller is rece	ived via	mode	e, controller" is	set to "Heating	g and Coo	ling" or	
this 8-	bit object, then	the telegram is c	liscarded a	S	"Heat	ing" and the para	ameter "Control	value outpu	ut" is set	
120	Status raam	0 4	1 butes	تالع	to "S heati	eparate objects". ng" is on "Two lev	. The parameter vel control"	Controlle	er mode	
130	operating	04	Tuytes	KLU	This	biect then sends	the control nara	imeter as a	n	
	mode				On/O	ff switching com	mand in heating	mode.		
l		I	1	1		<u> </u>	<u> </u>			

Engineering Manual

909510, 102 pages

Update: http://www.siemens.de/gamma

Obj	Object name	Feature	Туре	Flag	Ob	j	Object name	Feature	Туре	Flag
132	Heating, control value contionuous	0100 %	1 bytes	KLÜ	Th me me	is c ode ode	bject is available of controller" in , controller" is	e only if the par the parameter v set to "Heating	ameter "O vindow "O j and Coo	perating perating ling" or
This object is only available if the parameter "Operating mode of controller" in the parameter window "Operating mode, controller" is set to "Heating and Cooling" or "Heating" and the parameter "Control value output" is set					"H "Pi In pa	eati coi hea ran	ing". The parame ntrol". hting mode with heter for the seco ercentage value	eter "Controller n sequential contro and sequence is s	node heatir ol, the cont sent via this	ng" is on trol s object
heatir In hea as a p	ng" is on "PI contr nting mode, this ercentage value.	object sends the	control pa	rameter	13	5	Cooling, control value continuous,	0100 %	1 byte	KLÜ
133	cooling, control value switching	Un/Ult	I DIL	KLU	Th m	is c ode	bject is available of controller" in	e only if the par the parameter v	ameter "O vindow "O	perating perating
This c mode "Cooli to "Se coolir	This object is only available if the parameter "Operating mode of controller" in the parameter window "Operating mode, controller" is set to "Heating and Cooling" or "Cooling" and the parameter "Control value output" is set to "Separate objects". The parameter "Controller mode cooling" is on "Two lovel control"				"C "Pl In pa as	ode ooli coi coc ran <u>a p</u>	, controller is ng". The parame ntrol". ling mode with s neter for the seco ercentage value	set to Heating ster "Controller n sequential contro ond sequence is s	ond Coo node coolir bl, the cont sent via this	ng" is on rol s object
This c On/Of	bject then sends	the control para mand in cooling	ameter as a mode.	an Izuü	14	6	Temperature, setpoint blocking	block/enable	1 bit	KSÜA
122	control value constant	0100 %	Tuytes	KLU	Th se	is (tpoi	object is availal int adjustment	ble only if the in the pa	paramete rameter	r "Block window
This of mode mode "Cooli to "Se	This object is only available if the parameter "Operating mode of controller" in the parameter window "Operating mode, controller" is set to "Heating and Cooling" or "Cooling" and the parameter "Control value output" is set to "Separate chiests". The parameter "Controller mode					onti :he just vice just	roller - General" i value "0" or "1" is ment of the non e. The object valu ment can be cor	s set to "Yes". s received via thi ninal value is blo ue for blocking n nfigured.	s object, cked locally ominal valu	/ on the Je
coolir In coo	ig" is on "PI contr ling mode, this o	ol". object sends the	control pa	rameter	14	7	Operation mode blocking	block/enable	1 bit	KSÜA
as a p 134	as a percentage value. This object is available only if the parameter "Block operating mode" in the parameter window "Controller General" is set to "Yes". 134 Heating, control value continuous, sequence 2 1 bytes KLÜ 134 Heating, control value continuous, sequence 2 1 bytes KLÜ					r "Block htroller - ode bject				

SIEMENS

April 2013

07B0 CO Room Control Unit 970101

9.7.12 Fan parameter

General	Number of fan rotational speed steps	2	
Display	Number of fail focational speed steps	3	
Behaviour after bus voltage recovery	Fan speed at step 1	25	
Info area (Line 1)	(value in %)	23	•
1st. function	Ean ground at stop 2		
2nd. function	(value in %)	50	•
3rd. function			
4th. function	Fan speed at step 3 (value in %)	100	Ţ
5th. function			
6th. function	Block fan speed change via object	no	•
7th. function	Start speed of fan	10	
8th. function	Start speed of fair	10	~
Alarm - General	Display fan speed stage	with 1-bit objects	•
Alarm 1			
Controller - General	Hold time for fan speed	inactive	•
Operating mode, controller			
Operating mode, room	Enable automatic mode via	object value = 1	•
Frost/heat alarm	Oucle Size of the endine land time	[. <u>.</u>	
Temperature, actual value	of the speed value	15 minutes	•
Temperature, setpoint values			
Heating, PI-control			
Heating, valve			
Cooling, 2 level control			
Cooling, valve			
Fan			

909510, 102 pages

Engineering Manual

3.10.1.6.1/100

SIEMENS

07B0 CO room controller 970101

Parameter	Setting				
Number of fan	1				
rotational speed	2				
steps	3				
This parameter specifies	how many fan speeds can be				
set.					
Fan speed in step 1	1 25 100				
(value in %)					
This parameter specifies	the desired relative speed in				
stage 1 as a value betwe	en 1 and 100%, in which the				
value equals 100% of th	e max. possible speed. This is				
at once the recalculation	of the fan speed at a constant				
value (see Section 6.2.5	and Figure 21)				
Fan speed in step 2 (value in %)	1 50 100				
This parameter specifies	the desired relative speed in				
stage 2 as a value betwe	en 1 and 100%, in which the				
value equals 100% of th	e max. possible speed. This is				
at once the recalculation	n of the fan speed at a constant				
value (see Section 6.2.5	and Figure 21). The parameter				
is visible only if 2 or 3 sp	eeds are set.				
Fan speed in step 3	1 100				
(value in %)					
This parameter specifies	the desired relative speed in				
stage 3 as a value betwe	en 1 and 100%, in which the				
value equals 100% of th	e max. possible speed. This is				
at once the recalculation	1 of the fan speed at a constant				
value (see Section 6.2.5	and Figure 21). The parameter				
Dis visible only if 3 speeds					
BIOCK fan speed	Nos if blocking object 0				
change via object.	yes, it blocking object = 0				
	yes, ii blocking object = 1				
	DIOCK permanently				
inis parameter determin	les whether and under what				
blocking object or wheth	The set manually via the				
nermanently	ier this is to be suppressed				
Start speed of for	1 10 100				
Start speed of fan					
This parameter specifies with which speed the fans are					
they start up cafely	nom the rest position, so that				
This value defines the re	levant fan sneed to start with				
via the configured fan s	need in the steps $1/2$ or $3/1$ If a				
too small value is set as	the appropriate speed the				
	aquivalent				
Block permanentlyThis parameter determines whether and under what condition fan speeds can be set manually via the blocking object or whether this is to be suppressed permanently.Start speed of fan110100This parameter specifies with which speed the fans are 					

Parameter	Setting
Display fan speed	with 1-hit objects
stane	with 8-bit object
This parameter specifies	whether the fan actuator
sends its status via an 8-	-bit object or via three 1-bit
objects. Accordingly, the	e value contents are analyzed
for indicating the fan sp	eed.
Hold time for fan	inactive
speed	1 minutes
	2 minutes
	3 minutes
So that the fan speed doe	es not change constantly in the
range around the fail spe	ed thresholds, this parameter
speed This applies only to	o automatic changeover via the
controller using the valve	setting.
Enable automatic	Obiect value = 0
mode via	Object value = 1
This parameter specifies	or displays the object value to
be sent.	
Object value = 0: The fa	in mode object sends or
evaluates the values 0 =	Automatic, 1 = Manual mode.
Object value = 1: The fa	in mode object sends or
evaluates the values 1 =	Automatic, 0 = Manual mode.
In this way, you can con	trol different fan coil
Controllers (see Section	0.2.5).
Cycle time for cyclical	5 minutes
sending of the speed	o minutes
Value	7 minutes
	o minutes
	9 minutes
	12 minutes
	15 minutes
	17 minutes
	20 minutes
	25 minutes
	30 minutes
	40 minutes
	50 minutes
	60 minutes
	90 minutes
	120 minutes
	inactive

909510, 102 pages

Engineering Manual

April 2013

07B0 CO room controller 970101

ParameterSettingThis specifies the time interval at the end of which the
starting speed, as well as automatic sending on
change, should be resent.

9.7.13 Fan communication objects

Obj	Object name	Feature	Туре	Flag				
136	Fan mode (send)	0 = Hand/1 = Automatic or 1 = Hand/0 = Automatic	1 bit	KLÜ				
This c and m object param	This object sends the changeover between automatic and manual modes. The value "0" or "1" is sent via this object accordingly. The object value corresponds to the parameter "Automatic mode released with".							
136	Fan mode (receive)	0 = Hand/1 = Automatic or 1 = Hand/0 = Automatic	1 bit	KSÜA				
This o mode The "Autor	This object receives the fan mode, automatic or manual mode The object value corresponds to the parameter "Automatic mode released with".							
138	Ventilator speed command (send)	0100%	1 bytes	KLÜ				
This ol	bject sends the	e current fan speed.						
Obj	Object name	Feature	Туре	Flag				
139	Fan speed value (receive)	0100%	1 bytes	KSÜA				
The ol an act speed Telegr	The object receives the current fan speed as status from an actuator. This object is only visible if the "Display fan speed stage" parameter is set to "with 8-bit object". Telegrams via the objects 143, 144 or 145 are ignored.							
140 Fan speed 1 On/Off 1 bit KLÜ (send)								
The ob	oject determin	es the current speed	l for fan s	peed 1.				
141	Fan speed 2 (send)	On/Off	1 bit	KLÜ				
The ob	oject determin	es the current speed	l for fan s	peed 2.				

Obj	Object name	Feature	Туре	Flag				
142	Fan speed 3 (send)	On/Off	1 bit	KLÜ				
The ob	oject determine	es the current speed	for fan s	peed 3.				
143	Fan speed 1 (receive)	On/Off	1 bit	KSÜA				
The ob fan sp	The object receives the current fan speed. The maximum fan speed is shown in each case.							
144	Fan speed 2 (receive)	On/Off	1 bit	KSÜA				
The ob fan sp	oject receives t eed is shown i	he current fan spee n each case.	d. The m	aximum				
145	Fan speed 3 (receive)	On/Off	1 bit	KSÜA				
The ob fan sp	oject receives t eed is shown i	he current fan spee n each case.	d. The m	aximum				
148	Fan commands	block/release	1 bit	KSÜA				
If the value "0" or "1" is received via this object, fan speed adjustment is blocked. The object value for blocking fan adjustment can be configured.								

Space for notices:

Engineering Manual