STC-DO 8 Type 1

Wireless Actuator with 8 digital outputs and heating/cooling function

thermokon®
HOME OF SENSOR TECHNOLOGY

Datasheet

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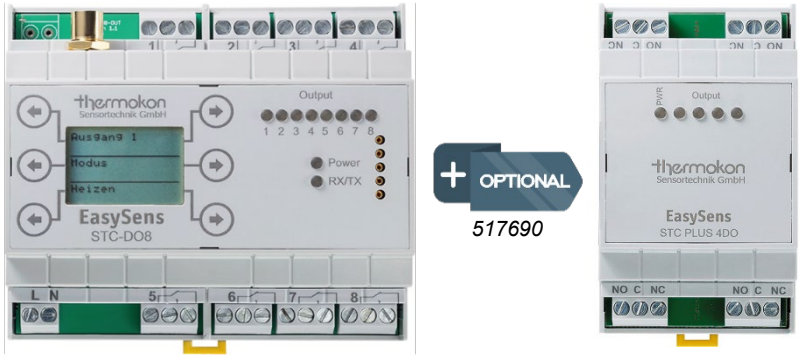
enocean®



»APPLICATION

Bidirectional receiver with 8 digital outputs (or 12 with extension module STC-Plus 4DO). For heating/cooling control incl. ext. receiving antenna (2,5 m).

»TYPES AVAILABLE – TYPE 1

Wireless receiver – multi relay 24 V
- STC-DO8 24 V type heating/cooling

Wireless receiver – multi relay 230 V
- STC-DO8 230 V type heating/cooling

»SECURITY ADVICE – CAUTION

The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorised modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.
CAUTION! Risk of electric shock due to live components within the enclosure, especially devices with mains voltage supply (usually between 90..265 V).

Please comply with
- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

»PRODUCT TESTING AND CERTIFICATION

CE UKCA

Declaration of conformity
The declaration of conformity of the products are available on our website https://www.thermokon.de/ .

NOTES ON DISPOSAL

As a component of a large-scale fixed installation, Thermokon products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

»TECHNICAL DATA

Output switch contact	**STC-DO8 24 V:** 8x relay with change-over contact (floating), 24 V =/~ 6 A, 12x relay with additional module STC-PLUS 4DO **STC-DO8 100..230 V:** 8x relay with change-over contact (floating), 230 V ~ 6 A, 12x relay with additional module STC-PLUS 4DO
Radio technology	EnOcean (IEC 14543-3-10), transmission power <10 mW
Frequency	868 MHz, optional 902 MHz / 315 MHz
Antenna	external transmit- / receive antenna
Data transmission	bidirectional
Power supply	**STC-DO8 24 V:** 18..24 V = / ~ SELV **STC-DO8 100..230 V:** 100..240 V ~ (±10%)
Power consumption	**STC-DO8 24 V:** typ. 2,0 W (24 V =) | 3,5 VA (24 V ~) **STC-DO8 100..230 V:** 3,5 VA
Display	LCD 37,5 mm x 31,6 mm
Functions	heating/cooling (PI), heating/cooling with PWM output
No. Of buttons	6 capacitive touch sensor buttons
Switching values	**STC-DO8 24 V:** 6 A resistive load (24 V =/~) **STC-DO8 100..230 V:** 6 A resistive load (230 V ~)
Enclosure	ABS, light grey
Protection	IP20 according to EN 60529
Connection electrical	erminal block, max. 1,5 mm²
Ambient condition	0..+60 °C max. 85% rH non-condensing
Weight	ca. 250 g (without external antenna)
Mounting	prepared for mounting on DIN rail TS35 (35x7,5 mm) according to EN 60715
Delivery contents	external transmit- / receive antenna with magnetic holding
Notes	For inductive and / or capacitive loads, a suitable protection must be provided (varistor, RC element, inrush current limiting element, ...).

»INFORMATION ABOUT EASYSENS® (RADIO) / AIRCONFIG GENERAL USAGE

EasySens® - airConfig
Basic information about EasySens® radio and about general usage of our airConfig software, please download from our website.

»OVERVIEW OF THE RADIO TELEGRAMS

EEP
The structure of the data contained in the telegram can be found in the EEP (EnOcean equipment profile) list provided by the EnOcean Alliance. http://www.enocean-alliance.org/eep/

» COMPATIBILITY LIST (OVERVIEW OF THE SUPPORTED RADIO TELEGRAMS (EEP´S)/DEVICES)

A maximum number of 248 sensors can be connected. It is possible to seamlessly connect the following numbers of sensors to the STC-DO8 per output/channel:

- max. 1x room sensor type SR04x, SR06x or SR07x
- max. 10x digital input modules SR65DI, EnOcean switch or occupancy sensors SR-MDS, MOC, MOW (solar)
- max. 20x window contacts SRW01 or window handles SRG01
- max. 1x superior control unit (EnOcean Profile EEP A5-20-12)
- max. 1x EnOcean valve actuator

EEP (EnOcean Equipment Profiles)		Device
D5-00-01	**single input contact**	SRW03, thanos, SR65 DI
F6-02-01 (F6-02-xx)	**rocker switch**	SR-MDS Solar, SR65-DI, Handheld transmitter
F6-04-01	**key card activated switch**	SR-KCS, SR65-DI
F6-10-00	**window handle**	SRG02
A5-02-05	**temperature 0°C..+40°C**	SR04, SR07, SR65 T
A5-04-01	**temperature 0°C..+40°C and humidity 0..100%**	SR04 rH, SR07 rH, SR65 rH
A5-07-01	**occupancy with supply voltage monitor**	SR-MOC, SR-MOW, SR-MDS Solar, SR65-DI
A5-08-01	**illuminance 0..510lx, temperature 0..+51°C, occupancy button**	SR-MDS, SR-MDS Solar
A5-09-04	**CO2, temperature**	SR04 CO2
A5-30-01	**single input contact, battery monitor**	SR65 DI
A5-10-01	**temperature, set point, fan speed and occupancy control**	SR04 PST
A5-10-02	**temperature, set point set point, fan speed and day/night control**	SR04 PS MS, thanos SR
A5-10-03	**temperature, set point control**	SR04P, SR07P, SR06 2T
A5-10-04	**temperature, set point, fan speed control**	SR04 PS, SR06 4T Typ1
A5-10-05	**temperature, set point and occupancy control**	SR04 PT, SR07 PT
A5-10-06	**temperature, set point and day/night control**	SR04 P MS, SR07 P MS
A5-10-10	**temperature, humidity, set point and occupancy control**	SR04 PT rH, SR07 PT rH
A5-10-11	**temperature, humidity, set point and day/night control**	SR04 P MS rH, SR07 P MS rH, Thanos SR
A5-10-12	**temperature, humidity and set point**	SR04 P rH, SR07 P rH, SR06 2T rH
A5-10-13	**temperature, humidity and occupancy control**	SR04 T rH, SR07 T rH
A5-10-0C	**temperature and occupancy control**	SR04 T
A5-20-01	**Battery powered actuator**	SAB05
A5-20-12	**Temperature Controller Input**	Building management

» MOUNTING ADVICES

The housing of the module is designed for installation on standard DIN rails according to DIN EN 60715. For operation, a external 868 MHz receiving antenna is necessary.

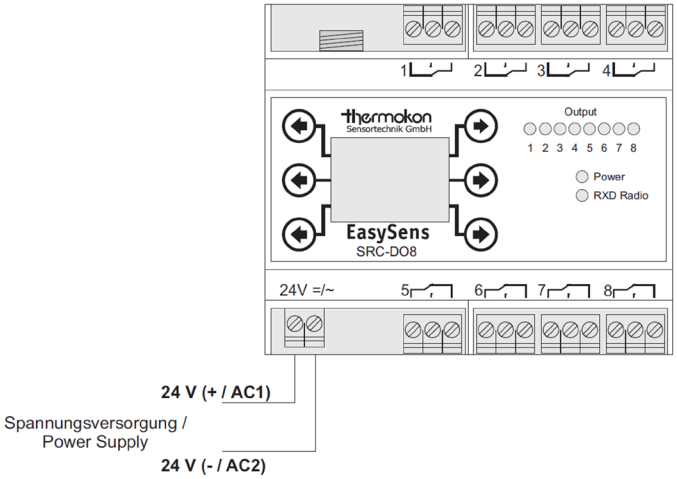
The antenna has a magnetic flux and must be mounted in the middle of a metal plate with the minimum dimensions 180 mm x 180 mm (material: galvanized sheet steel, please see “accessories”). The ideal mounting place in rooms is found approx. 1 m under the ceiling (optimum radio transmission range). The antenna should be adjusted vertically and should have a minimum distance of approx. 90 mm to the wall. The distance to other senders (e.g. 4G/LTE/GSM/DECT/Wireless LAN/ EnOcean senders) should be 2 m at least. To match the colour of the room, the antenna can be painted, accordingly (do not use any metallic lacquers).

Cable Laying Notice

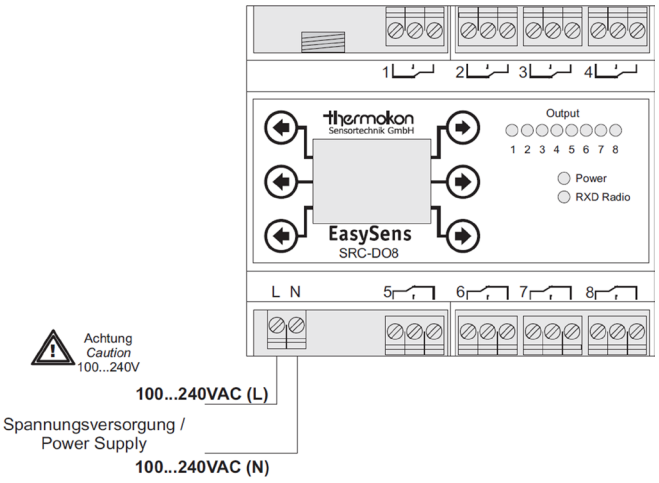
- Cable laying should be made in an electric conduit.
- A cable crushing should be avoided.
- The minimum bending radius of the extension cable amounts to 50 mm
- Do not use an active pull-up device for the cable laying, in order to avoid any damages of the sheathing respectively of the connectors.

» CONNECTION PLAN

STC-DO8 24 V



STC-DO8 230 V



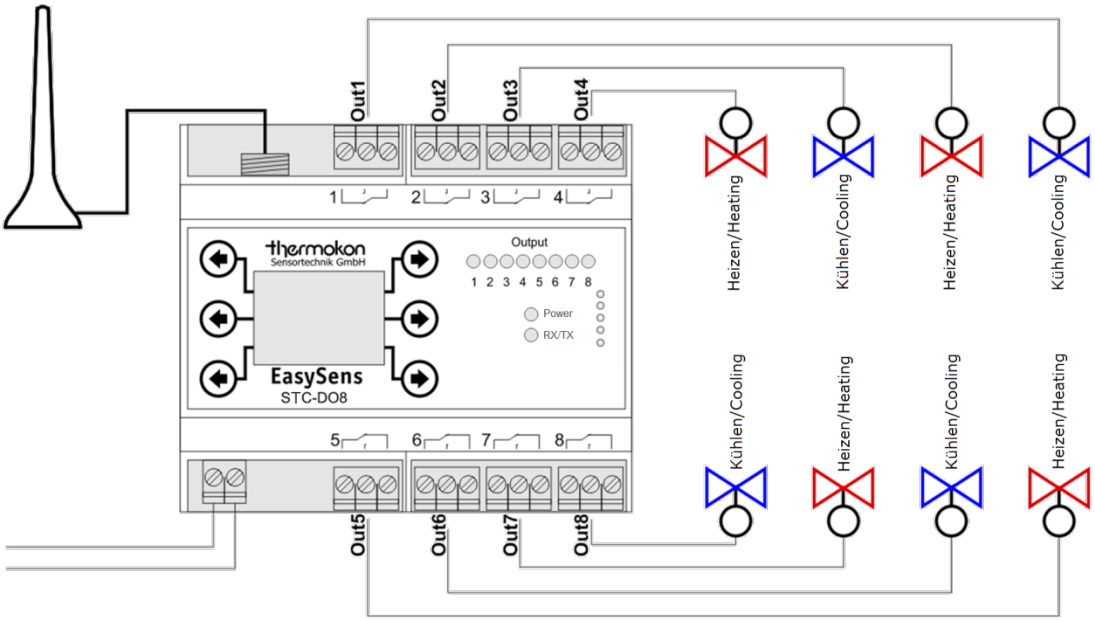
Notice:

A combination of low voltage and mains voltage at the individual outputs is not safe. All relay outputs must use a common phase - various phases are prohibited.

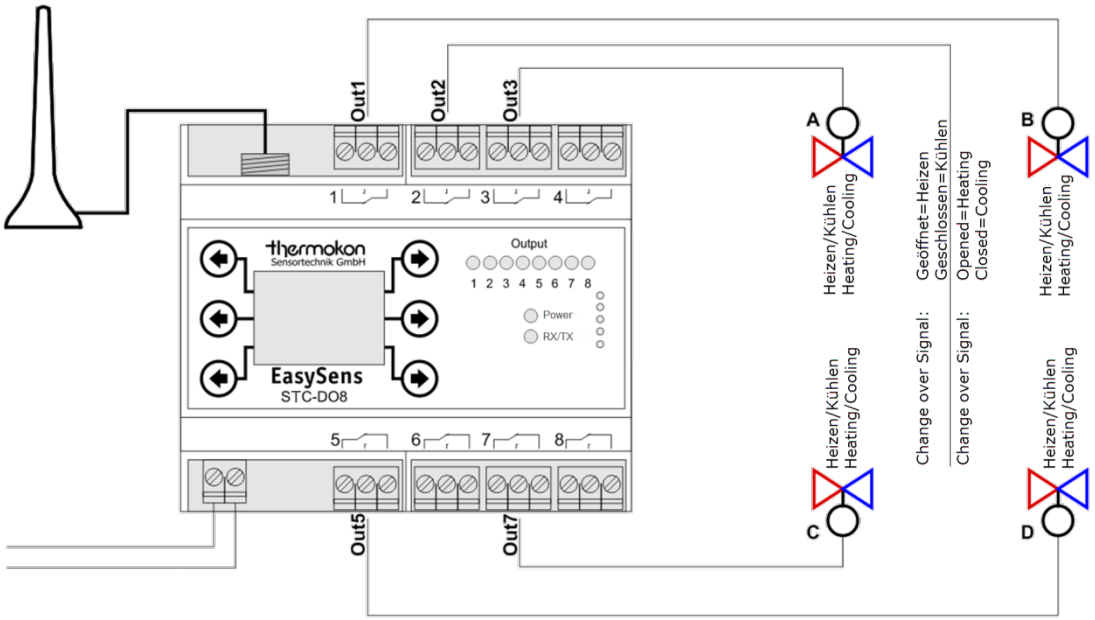
Buttons:

The STC-DO8 has 6 capacitive buttons which re-calibrate themselves automatically after a reset. In order to guarantee a smooth function of the buttons, they must not be touched during calibration. Calibration is finished as soon as the green LED (power) shines continuously.

Heating / cooling with different valves



Heating / cooling with combined heat-/cooling valve (2-pipe system)



»FUNCTION DESCRIPTION

The STC-DO8 compares the room temperature provided by the wireless sensor with the calculated set point. If the room temperature falls below / exceeds the calculated set point, the relays are controlled by the controller according to the corresponding device settings.

The receiver calculates the set point of the room temperature from the adjusted basic set point (default 21°C) and the set point adjustment (default -5k…+5k).

The radio sensor cyclically sends a radio telegram with the measured values to the receiver. In normal operating mode, the reception of a taught-in sensor is indicated at the receiver by a brief lighting up of the "RXD Radio" LED.

Energy Stop Function:
If a window contact or window handle is connected, the STC-DO8 can only switch on the corresponding heating-output if

- the information “window closed” is provided by the window contact/window handle,
- or no signal of the window contact is received in the recent 45 minutes (defective window contact)
- or “window opened” is reported by the window contact/window handle, but the room temperature has fallen below the antifreeze limit set (default 8°C).

Function Comfort/Lowering Operation:
The STC-DO8 has an integrated time switch by which an automatic toggling from comfort to lowering mode or from lowering to comfort mode can be effected. Thus, the time switch has 8 timer clocks, which can be assigned to each output/channel and every weekday.

Furthermore, it is possible to set the STC-DO8 manually into the lowering mode when using the room sensors SR04P MS / SR07P MS or up to 10 sensors of the digital input module SR65DI or wireless EnOcean switches.

When having connected the occupancy sensor SR-MDS or when using room sensors SR04T, SR04PT or SR04PST the comfort time adjusted at the STC-DO8 can be prolonged. Thus, it can be avoided that the temperature is switched down by the controller although the room is still occupied.

Comfort Operating:
In the comfort operation the set point of the controller is formed as follows:

Basic set point + local set point adjustment

Lowering Operating:
In the lowering operation the set point of the controller is formed as follows:

Basic set point - lowering temperature

With the SR04P MS the switching-over is made by the slide switch (position 1 = lowering mode, position 0 = comfort mode). As for the SR07P MS the switching over is made by the slide switch (position night = lowering mode, position day = comfort mode). As for the SR65 DI the switching over is made by the digital input for floating contacts (contact open = lowering mode, contact closed = comfort mode). As for the EnOcean wireless switches, the switching over is made by button actuation (Position 1 = comfort mode, position 0 = lowering mode).

»CONTROLLER

The controllers of the 8 individual outputs can either be used as a two-point or PI-controller. The selection of the controller type is made via the configuration menu.

Two-Point Controller

Heating mode:
If the room temperature falls below the calculated set point, the relay is switched at the corresponding output. The relay is switched-off again as soon as the room temperature is greater than or equal to the calculated set point.

Cooling mode:
If the room temperature exceeds the calculated set point, the relay is switched at the corresponding output. The relay is switched-off again as soon as the room temperature is lower than or equal to the calculated set point.

PI-Controller:
As for the PI-controller the control variable (Y) is calculated by means of the room temperature, the set point and the adjusted control parameter Xp/Tn.

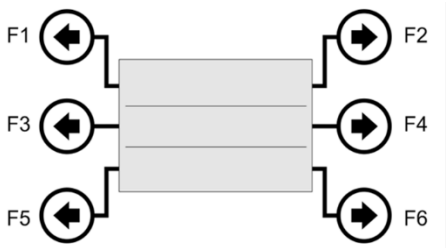
The control variable is output to the corresponding relay output in form of a pulse width modulation (PWM). The property setting of the PI-controller [(P) amplifying P-Band, (I) reset time Tn and the PWM period] can be field adjusted for each output in the configuration menu.

Typical PI-Controller Settings:

Warm water heating: *Xp=5k / Tn=150 min*
Underfloor heating: *Xp=5K / Tn=240 min*
Electric heating: *Xp=4K / Tn=90 min*
Fan heater: *Xp=4K / Tn=90 min*

»CONFIGURATION

The STC-DO8 has a configuration menu via which any properties can be set. The menu is partitioned into 3 levels, whereas for operation each level is exactly assigned to 2 keys.



Notice:
For menu items in which 1 value shall be changed (e.g. basic set point), the left button has the function "left/-" and the right button "right/+".

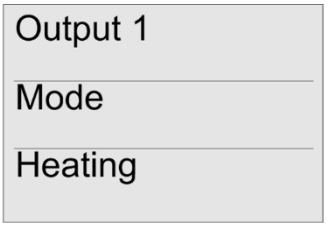
For menu items in which 2 values shall be changed (e.g. time including hours and minutes), the left button has the function "Value A +" and the right button "Value B +".

For menu items in which more than 2 values shall be changed, the left button has the function "Selected value +" and the right button "Select value".

»CONFIGURATION OF SWITCHING OUTPUTS

Mode

Selection of requested mode.

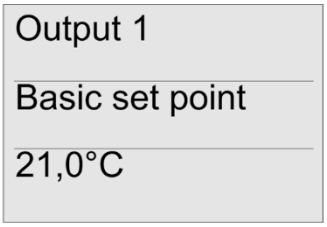


Possible selections: Heating, cooling
Factory setting: Heating

Notice: This menu point is only available if the STC-DO8 is operated with the function “heating or cooling” (see “General Settings”).

Basic Set Point

Setting of requested basic set point



Adjustable range: 10,0°C..30,0°C

Resolution: 0,1k

Factory setting: 21,0 °C

Antifreeze

Setting of antifreeze limit.

The controller switches to 100% (heating) if the antifreeze limit is under-run, even if a window is opened.

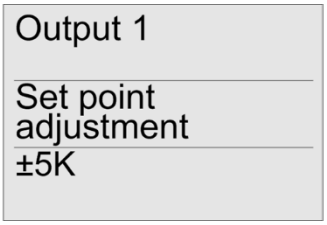
Adjustable range: 5°C…15°C

Resolution: 1K

Factory setting: 8°C

Set Point Adjustment

Manual adjustment of the set point on the sensor.



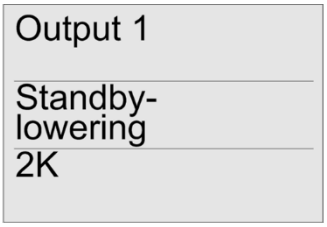
Adjustable range: ±0K…±10k

Resolution: 1K

Factory setting: ±5K

Standby Lowering

The heat-/cooling set point is lowered/ increased by this value when a main-controller sends „Standby“.



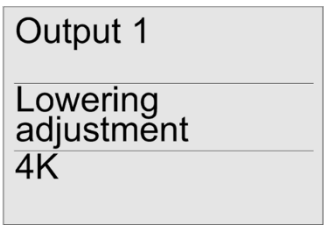
Adjustable range: 0K…15K

Resolution: 1K

Factory setting: 2K

Night Lowering

The heat-/cooling set point is lowered/increased by this value outside the comfort time.



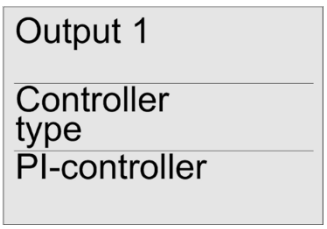
Adjustable range: 0K…15K

Resolution: 1K

Factory setting: 4K

Controller Type

Selection of requested control type



Possible selections:

PI-controller and 2-level controller

Factory setting: PI-controller

Proportional Range Xp (only for PI-Controller)

Setting of Xp. Xp shows the proportional range between the control difference (deviation of actual value and set point) and the control variable.

Adjustable range: 0,1…10,0K

Resolution: 0,1K

Factory setting: 5,0K

Integral range Tn (only for PI-Controller)

Setting of integral range Tn. The integral range is the time which an I-controller needs to achieve the same control variable change, which is effected instantly by a PI-controller due to its P-part.

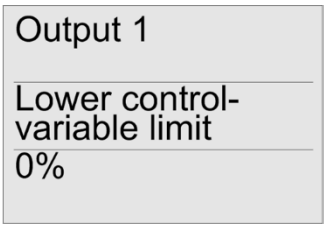
Adjustable range: 0…255 minutes

Resolution: 1 minute

Factory setting: 240 minutes

Minimal Control Variable (only for PI-Controller)

Setting of minimal control variable. This control variable is output by the PI-controller at minimum, even if there is no actuation.



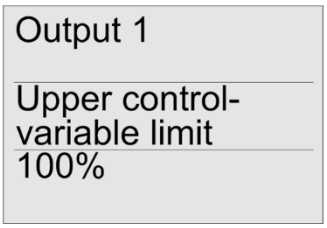
Adjustable range: 0%...100%

Resolution: 10%

Factory setting: 0%

Maximal Control Variable (only for PI-Controller)

Setting of maximal control variable. This control variable is output by the PI-controller at maximum.



Adjustable range: 0%...100%

Resolution: 10%

Factory setting: 100%

PMW-Cycle Time (only for PI-Controller)

Setting of PWM-cycle time.

Adjustable range: 1…255 minutes

Resolution: 1 minute

Factory setting: 15 minutes

Send EnOcean-ID

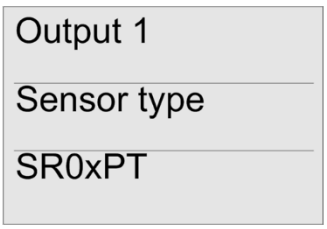
(Type STC-DO8 only)

Menu point to send a learn telegram of the output.

Press F6 to generate a learn telegram.

Type of Room Sensor

Selection of room sensor that shall be seamlessly connected to this output.



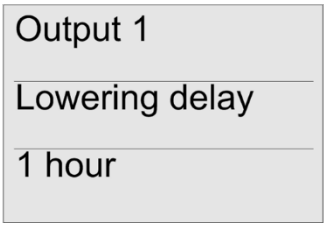
Possible selections: SR0x, SR0xP, SR0xPT, SR0xP MS, SR0xPST, SR0xT and SR0xPS

Factory setting: SR0xPT

Advice: By selecting the type SR0x the set point adjustment will be set to 0K.

Lowering Delay

Setting of lowering delay. The time of the night lowering is delayed by this time, if the presence button on the room sensor SR0xPT/ SR0xPST is actuated or movement is detected by the occupancy sensor.



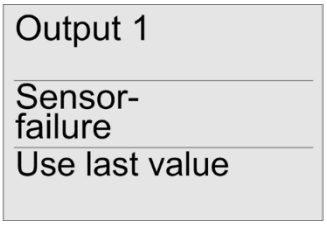
Adjustable range: disabled, 30 minutes,

1 hour, 2 hours, 3 hours, 4 hours and 5 hours

Factory setting: 1 hour

Control Variable during Sensor Failure

In this menu it can be adjusted which control variable shall be output by the controller in case the sensor fails (no telegram was received for a time exceeding 90 minutes).



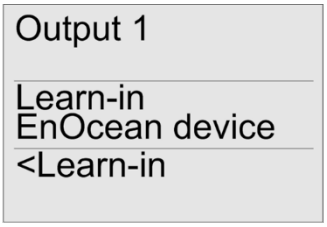
Adjustable range: Use control variables calculated last or 0%...100%

Resolution: 10%

Factory setting: Use last value

Seamless Connection of Sensors

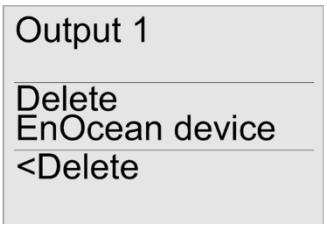
Menu point for seamless connection of a EnOcean device to the set output.



In order to learn-in the requested sensor, the F5 key must be actuated in the corresponding menu. Afterwards, the learning-in procedure for the corresponding sensor described in the operating instructions must be carried out within 45 seconds. If the sensor was connected successfully, a corresponding notice is displayed.

Delete EnOcean Device

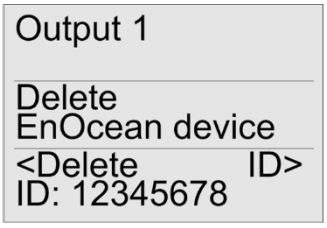
Menu for clearing a EnOcean device at the output set.



In order to clear the requested sensor, the F5 key must be actuated in the corresponding menu. Afterwards, the learning-out procedure for the corresponding sensor described in the operating instructions must be carried out within 45 seconds. If the sensor was successfully disconnected (learned-out) a corresponding notice is displayed.

Delete EnOcean Device via ID

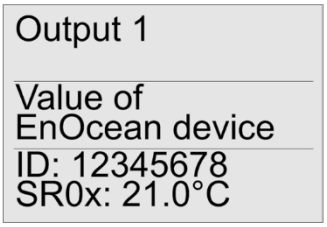
In this menu, EnOcean devices can be cleared by means of their ID.



By button F6 a sensor is selected. By means of button F5 this sensor can be cleared after having confirmed the safety query.

Show value of EnOcean device

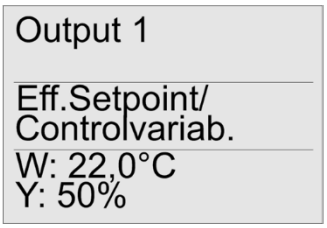
This menu shows the values/status of the EnOcean devices learned-in.



By means of buttons F5 and F6 the sensors can be selected. The ID of the chosen sensor as well as its value/status are displayed.

Show effective Set point and Control Variable

In this menu item, the effective set point (W) and the current controller output variable (Y) are displayed.

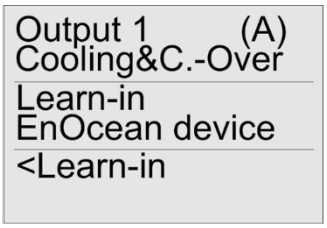


Learn-in „change over sensor“

(This menu point is only visible on following parameterization: „General“ -

„Change-over“ - „Invert change over“)

Menu point to learn-in a sensor to toggle between heating/cooling operations. It is possible to learn-in the SR65DI (contact open = heating operation, contact closed = cooling operation) and SR65 VFG (see menu point “Change over temperature SR65 VFG).



For learning-in, push the button F5 and execute the learning-in procedure for the corresponding sensor (described in the respective operating instructions) within 45 seconds. If the sensor was successfully learned-in, a corresponding notice is displayed.

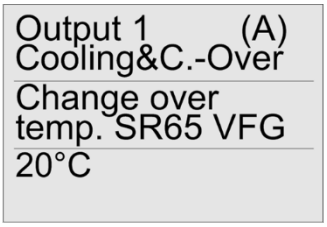
Notice: If a SR04P (S) MS is learned-in as a "change-over sensor", a toggling in the lowering mode via the slide switch is not feasible any more.

Please note that the seamless connection of a change-over sensor can solely be made via this menu point. The change-over sensor is valid for all heating-cooling channels of the STC-DO8.

Change Over Temperature SR65 VFG

If a SR65 VFG is seamlessly connected (learned-in), the STC-DO8 can automatically toggle between heating and cooling operation by means of the temperature supplied by the SR65 VFG.

If the temperature measured by the SR65 VFG is lower than the temperature set in this menu point, the STC-DO8 switches into the cooling mode. If the temperature measured is greater/equal than the temperature set, the STC-DO 8 switches into the heating mode.



Adjustable range: 10 ... 90°C

Resolution: 1°C

Factory setting: 20°C

Notice: This menu point is only visible if a SR65 VFG is seamlessly connected.

»PARAMETERIZATION OF TIME SWITCH

In total, there are 8 comfort times by which the integrated time switch can be configured. The comfort times can be field assigned to every output and weekday, so that for one output and/or one weekday up to 8 times can be defined.

Comfort Time 1 ..8 (time)

Time setting for the corresponding comfort time.

Factory setting: 6:00 to 23:00 o'clock

Comfort Time 1 ..8 (Day/ Output)

Assignment of the individual week days and outputs for the corresponding comfort time.

Notice for adjustment:

Key F3 reverses the selection of the weekday chosen.

F4 selects a weekday.

F5 reverses the selection of the output/channel chosen.

F6 selects an output.

Example:

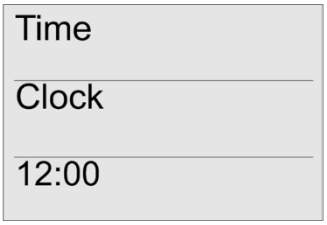
By means of this setting the comfort time 1 is activated on all 7 weekdays and is assigned to output 3.

»SETTING OF TIME AND WEEKDAY

The internal clock of the STC-DO8 is set via the menu “Time”. Therefore, the sub-menus “Clock”, „Day and month“, „Year“ and “clock change” are available. To make sure that the clock is also working correctly after a power failure, the STC-DO8 has an integrated energy buffer supplying the internal clock automatically for several hours.

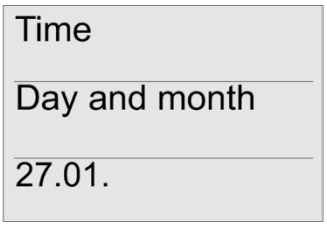
Time

Setting of current time.



Day and month

Setting of current date.



Year

Setting of current year.

Clock Change (summer/winter)

Setting of clock change (summer/winter) mode.

Adjustable range: Automatic, manual.

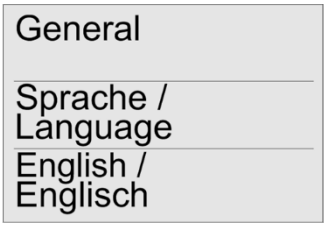
Factory setting: Automatic

» GENERAL SETTINGS

In the menu “General” general settings for the STC-DO8 can be determined which are valid for the complete device and which are not assigned to an output or comfort time.

Language

Setting of menu language.



Possible selections: German, English

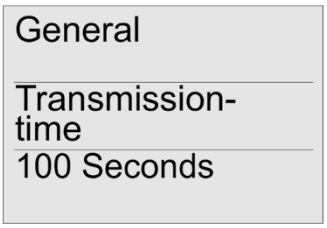
Factory setting: German

STC-DO8 EnOcean Telegrams
Type STC-DO8 is suitable to send its current status via an EnOcean RF telegram to transmit a feedback of the output status to other EnOcean based receivers. Therefore, every output of the STC-DO8 has an own EnOcean ID under which the STC-DO8 is sending a telegram according to the EnOcean Standard EEP A5-11-02.

Notice:
With a transmission action always all output states are transmitted. Always all output states are sent with a transmission action. If for example only one output status has changed, the remaining 7 output telegrams are transmitted nonetheless.

Transmission Time

Setting of the STC-DO8 transmission time.



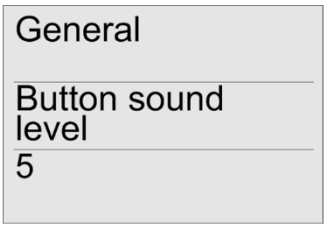
Adjustable range: 10, 100, 1000 seconds

Factory setting: 100 seconds

Besides the cyclical transmission, a telegram is sent upon every status change of the outputs.

Volume of Button Sound

Setting of button sound volume.



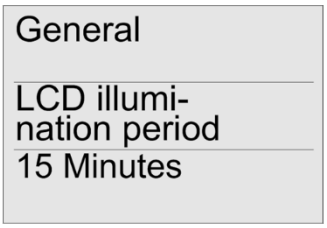
Adjustable range: 0…10

Resolution: 1

Factory setting: 5

Background Illumination Period

Setting of background illumination period.



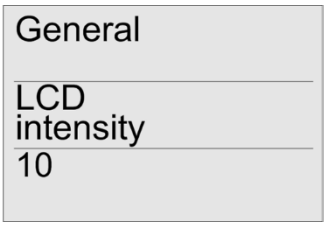
Adjustable range: 1…60 minutes

Resolution: 1 minutes

Factory setting: 15 minutes

Background Illumination Intensity

Setting of background illumination intensity.



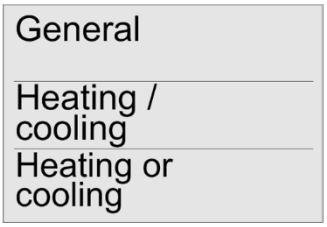
Adjustable range: 0…10

Resolution: 1

Factory setting: 10

Heating / Cooling

Selection of requested mode.



Possible selections: „Heating only“,

„Heating or cooling“ and „Heating and cooling“

Factory setting: „Heating or cooling“

Function Description:
If the STC-DO8 is operated with the function “heating or cooling”, it can be defined separately for each output if it shall be used for heating or cooling.

If the STC-DO8 is operated with the function “heating and cooling 2-pipe”, 4 heating/cooling channels, with one output per channel, will be built automatically (output 1 = heating/cooling A, output 3 = heating/cooling B, output 5 = heating/cooling C, output 7 = heating/cooling 7).

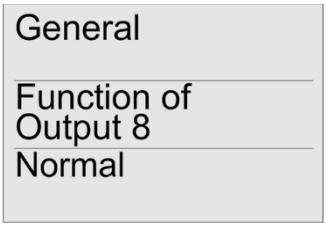
Both, the heating and cooling control variable have effect on a common output. Under the menu point "Output X Cooling&C.-Over" a change-over sensor can be teached-in to toggle between heating and cooling operation.

In this case, the corresponding sensors must only be learned-in (seamlessly connected) to the heating outputs of the corresponding heating/cooling channel and are used automatically for the cooling output by the STC-DO8.

If the STC-DO8 is operated with the function “heating and cooling 4-pipe”, 4 heating/cooling channels will be built automatically (channel A: output 1 = heating/ output 2 = cooling, channel B: output 3 = heating/ output 4 = cooling, channel C: output 5= heating/output 6= cooling, channel D: output 7= heating/output 8= cooling). In this case, the corresponding sensors must only be learned-in (seamlessly connected) to the heating outputs of the corresponding heating/cooling channel and are used automatically for the cooling output by the STC-DO8.

Function of Output 8

Instead of a standard controller output, output 8 can also be used for control of a circulation pump or for boiler control. In this case, output 8 is always switched-on as soon as at least one of the control variables 1 to 7 should be greater than 0 (OR-function of the control variables 1...7).



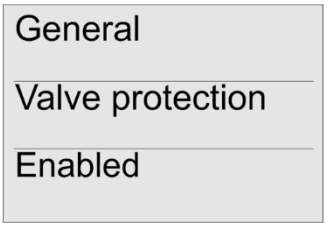
Possible selections: Standard function or

OR-function

Factory setting: standard function

Valve Protection

Every output which is used for the control of a valve has an own 24 hour counter. This counter is reset upon control of the corresponding relay. If a valve is not selected for more than 24 hours, the corresponding output is switched-on for 5 minutes with activated valve protection function to avoid a driving fit of the valve.

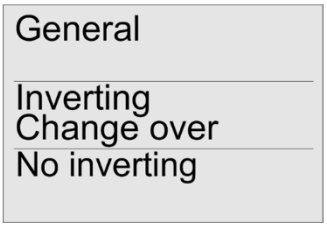


Possible selections: Enabled, disabled

Factory setting: Enabled

Invert Change over Sensor

If a SR65 DI is teached-in as a change-over sensor, the evaluation of the sensor can be inverted via this menu point.

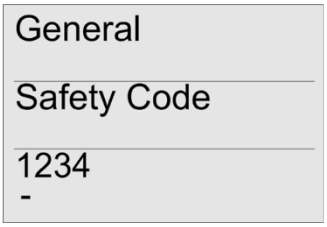


Available options: "No inverting" (open=heating / closed=cooling) and "Inverting" (open=cooling/ closed=heating).

Factory setting: "No inverting"

Safety Code

Setting of a four-digit safety code protecting the STC-DO8 against unauthorized access.



Adjustable range: 0000 ... 9999 (0000 deactivates the safety code)

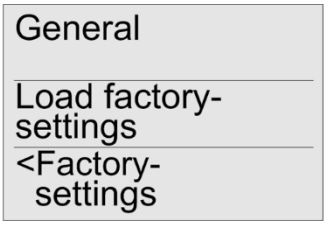
Resolution: 1

Factory setting: 0000

Notice: Button F5 increases the selected number by 1. Button F6 selects the next number of the four-digit code.

Load Factory Setting

The STC-DO8 can be reset to the original factory setting in the menu “General>Load Factory Settings”.



To load the factory settings, F5 must be actuated in the corresponding menu and the following security query must be confirmed.

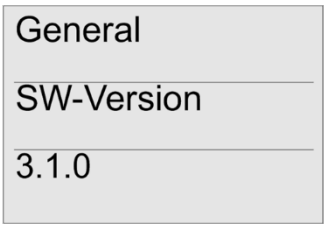
Restart

The STC-DO8 can be restarted in the menu “General>Restart”.

To restart the STC-DO8, F5 must be actuated in the corresponding menu and the following security query must be confirmed.

Software Version

Display of the STC-DO8 software version.

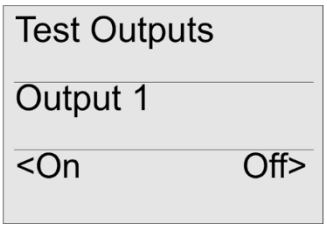


Test Outputs

Via the menu "Test Outputs" the function of all STC-DO8 outputs and all thermic actuators connected can be tested.

Notice: Please note that the control function of the STC-DO8 is stopped, as long as you are in the menu "Test Outputs".

The control function is automatically activated again as soon as the menu "Test Outputs" is left.



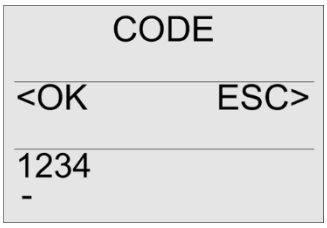
By means of the keys F3 and F4, the output to be tested is selected.

Afterwards, the chosen output can be switched on/off by the keys F5 and F6.

Safety Code Input

In order to prevent an unauthorized setting of the parameters, the STC-DO8 can be locked by a safety code.

After a restart or if none of the 6 buttons is actuated during the period of the LCD illumination, the next user is asked to insert the safety code when trying to make new settings at the STC-DO8.



Button F5 increases the selected number by 1.

Button F6 selects the next number of the four-digit code.

Button F3 confirms the input of the safety code.

Button F4 stops the input of the safety code.

Lock Parameterization

In order to avoid a change of the control properties by mistake after installation, the corresponding menu points can be locked. Due to the locking, only the time switch as well as time and date can be programmed afterwards. To activate the locking, push the two upper buttons (F1 and F2) of the switched-on STC-DO8 for 10 seconds until a tone of confirmation is heard. The unlocking is done in the same way.

» MSG-SERVER FUNCTION (TYPE STC-DO8 ONLY)

Function Principle:

The STC-DO8 with integrated MSG-Server functionality is designed as a gateway between EnOcean actuators (SAB05) and common EnOcean based sensors (temperature, motion, window position etc.). The sensors are transmitting their values to the STC-DO8 time and event controlled (e.g. current room temperature, set point, window status etc.). The STC-DO8 evaluates the data received and calculates the necessary control variable (valve outlet). To enable a long lifetime of the batteries used in the valve actuator, the actuator is set into an energy saving mode (sleep mode) and wakes up in a certain timer interval (wake-up time). If the valve actuator "wakes up", a specification request telegram is sent to the STC-DO8. The STC-DO8 resends the new control variable (valve outlet) within 0,5s to the actuator. Afterwards the valve actuator starts the valve position and is reset to the sleep mode.

The MSG-server function is available parallel to the control of conventional valve actuators. Accordingly, you can teach-in an EnOcean valve actuator to an output, and simultaneously connect a conventional actuator to the corresponding relay. Both actuators are controlled in this case with the same control variable.

» SUPERIOR CONTROL UNIT(FOR FANCOIL CONTROLLER)

In the STC-DO8, a higher-level control unit can be taught-in per output, with which the outputs can be overridden. This makes it possible to influence and adjust the control of the STC-DO8 from a higher level.

Learning in of a superior control unit:
Set the corresponding output of the SxC-DO8 into the learning mode. A learn telegram of the superior control unit with the EnOcean profile EEP A5-20-12 shall be sent within 60 seconds.

» EXTENSION MODULES (TYPE STC-DO8 ONLY)

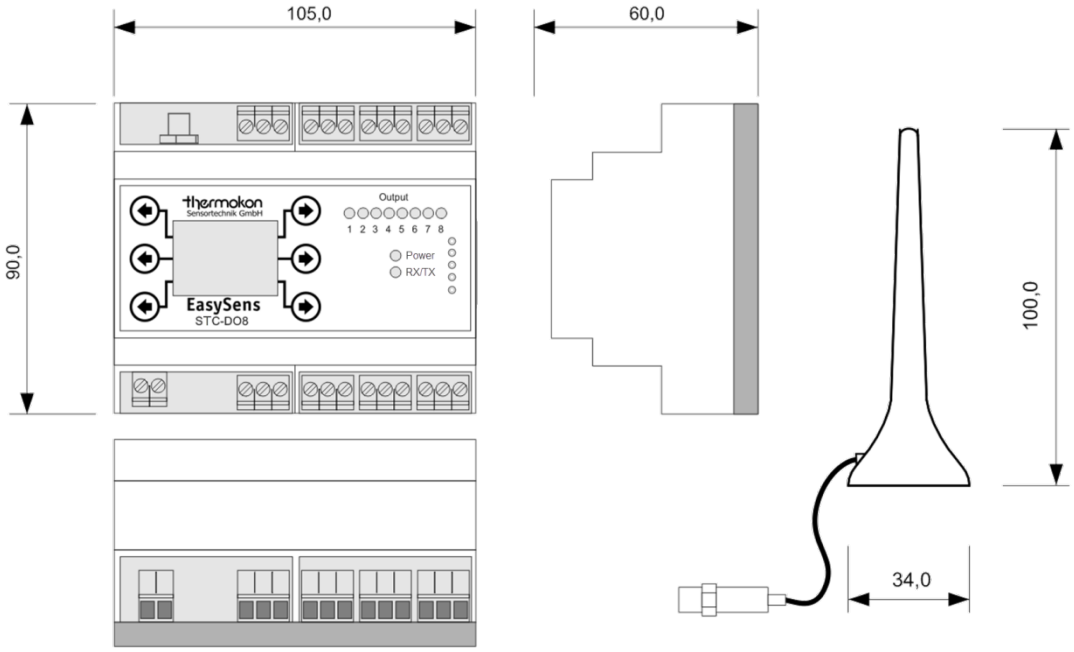
By the specially provided connector on the STC-DO8 extension modules can be added, so that the STC-DO8 can be expanded to a certain number of outputs.

The extension module is identified automatically by the STC-DO8 when starting the device. The identification is displayed with a corresponding message.

Besides the common menus "output 1..8", the "outputs A, B, C, ..." are available in the display menu for configuration of the additional outputs.

Further details can be found in the datasheet of the extension module.

» DIMENSIONS (MM)



» ACCESSORIES (OPTIONAL)

Antenna extension 10 m	Item No. 257206
Antenna extension 20 m	Item No. 257213
Antenna holder form L, 180 x 180 mm	Item No. 255097
Rawl plugs and screws	Item No. 102209